

A Complete Bibliography of Publications in *SIAM Journal on Scientific Computing*

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254
FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: <https://www.math.utah.edu/~beebe/>

17 October 2023
Version 3.29

Title word cross-reference

(1 + 1) [RF10]. (*k*) [YC99].
 $(\lambda^2 A + \lambda B + C)x = b$ [SP02]. (*m*) [WOW00].
($\text{Re} \leq 9500$) [GHTW00]. 1
[GV16, HJLZ18, KNV⁺16, LW03,
MMVW13, RMB00, SSN19, VB07]. 1.5
[KAU18]. 2 [ABST13, ACD⁺08b, BWV15,
BLS14, BH97, BI09, BK14, CMV97, CD01,
CGX21, KL15, KW07, KP06a, Kra09,
KNV⁺16, Lam97, LRP07, LYL⁺11, LW03,
LNS15, MT97a, NN03, Sma01, ZNZ16,
ZND18, ZWZ19, vVKA11]. 2, 3, 4 [Goe97].
2/3 [DHPAH19]. 3 [BIA99, BIA05, CP13,
CWL⁺14, CCC18, CDB13, CMSS06, CH11,
DHM22, Don06, FMW19, GH13, GvR22,
GD03, HA01, HHLZ21, KLZ22, KC16,

Kra09, LS12b, LFJS14, Min02, PATF19,
PTT20b, PS10b, PWGW12, PELY13,
PRSS11, RY03, RL18, RH06, Sch05, WT23,
WZC19, ZCW10, vdSF21]. 3/4 [LdGK20]. 5
[Goe97]. 6 [RY03]. ² [MW13]. ³ [BOF16]. *A*
[APSG14, APSG16]. A^{-1} [ADLR15]. α
[BFM⁺04, BMM⁺10, PR09]. *B*
[BGK15, KPP⁺16]. $c^*A^{-1}b$ [ST11]. C^0
[SXL⁺22]. C^1 [LR99, PMH⁺16]. C^∞ [Pla15].
D [AS18]. ℓ [MRS18, SvG10a]. ℓ^1
[GG19b, CJK10]. ℓ_0 [APSG14]. ℓ_1 [GNZC17,
NNT13, CJY16, GLN09, HAS20, YZ11].
 ℓ_{1-2} [YLHX15]. $\ell_1 - \ell_2$ [YSX17]. ℓ_2
[CXY10]. ℓ_p [CG19, CXY10, LMRS15]. ℓ_q
[LMRS15]. η [CB98]. *F* [TCWW20]. $f(A)b$
[CAS11]. *G* [GXZ21]. *H* [DMMO05, ACK19,
Doh21, HMM⁺21, Ain96, BH12, CDB13,
EOD93, GC97, HTB⁺05, LM21]. *H(curl)*

[LO11, WSP22]. $H(\text{curl}^2)$ [ZWZ19]. $H(\text{div})$ [Tal15, DKL⁺19, KV12b, LMM17, WWY09, KLL⁺16]. $H(\text{curl})$ [RKL09]. $H(\text{div})$ [RKL09, WWY11]. $H(\text{curl})$ [KVV23]. $H(\text{div})$ [KVV23]. H^1 [DTYY18, JK11]. H^{curl} [JK11]. $\mathbf{H}_C/\mathbf{E}_I$ [RH09]. HP [Gia18, AGH13, CGP19, EPR10, FHL13, HXB13, PRS12, ZKN21, BDK⁺20, CDG17, DEV16, GL08, HHM17, PDTVM08]. I [May08]. ILU [ACD18, LSC03, OKLS15]. j [JF16, RY03]. K [ROO08b, ZWG21, Gre03, Joe93]. L [HO93]. $l-2$ [FNNB05]. L_1 [LWZ17]. L^1 [DGP10, SWU16]. L^2 [EAS11, HCX22, MNvST13]. $L^2(H^1)$ [Pic10]. L_1 [RSNNR17, Tao22, WBS⁺17, FNNB05, YG15]. L_2 [HRT10, Tao22]. L_p [DF10, Lee21]. LDL^T [ADGP07, DHL20]. ≤ 1 [NPS22]. LU [DGHL12, LSS03, MG07, VM13]. M [HW99, Vir07, AMN15, BK17]. \mathbf{R}^2 [DW15b]. \mathbf{R}^3 [AB08b, HS99b, PL12]. \mathbf{R}^n [CBN02]. $\mathcal{CH}\text{eart}$ [LCR⁺16]. \mathcal{H} [BCK22, DHP17]. \mathcal{H}^∞ [Bör09]. \mathcal{H}_∞ [DJMR23, DGB15a, HM20b]. $\mathcal{H}_\infty \otimes \mathcal{L}_\infty$ [HMMS22]. \mathcal{H}_ℓ [BM12]. \mathcal{H}_∞ [BM18]. \mathcal{L}_∞ [MG23]. $\mathcal{O}(\infty)$ [BMF12]. $\mathcal{O}(N)$ [BCK16]. MR^3 [WL13]. N [Alu96, BME93, KL00b, AE18, BOF16, BEM94, GMS21]. $N \log_2 N$ [FMP06]. $O(1)$ [ABL20a]. $O(2)$ [WAS94]. $O(N)$ [GM14a, OKF14]. P [CK03, Ain96, BI00, BBR08, CG99, Cas97, CS16, FTY15, GC97, HKL23, HGK97, JP11, MSL13, MPV21, PP12b, RBG23, TB99a, ZK96]. $p+1$ [vNLB04]. $P_{-1/2+it}^\mu(x)$ [GST09]. P_1^{NC} [Le 05]. P_1 [Kan03a, Le 05, WWM03]. P_N [HM10b]. Q [GMS21, MMRN15]. qd [von97]. QR [But13, BHK20, DGHL12, DG17b, HvdG96, MOHvdG17, YTD15, YFS21, Nag93, Wat94, VD10]. r [EOD93, SSN19]. $r^{-\lambda}$ [CJ05b]. \mathbf{R}^3 [Atk94]. ρ [CFH⁺03]. s [Mou20, SvG08, Son12]. S_N [HSMT20, KR14, Lee10a, Lee12, Lee10b]. T [LZ13b]. τ [Ber97]. Θ [WL08, HWZ19, TSK09]. TV [CJK10]. V [BGP94, Kwa99]. ε [BRZ14]. φ [BKT21]. W [GPHHAPR18]. $w = f(A)v$ [TE07]. $X + A^T X^{-1} A = Q$ [GL10]. xx [CLQ12, CLW13].

-AAA [RBG23]. **-Adaptation** [DEV16]. **-Adaptive** [CDB13, FTY15, HHM17, EOD93, Gia18]. **-Algorithm** [VD10, von97]. **-Algorithms** [BRZ14]. **-Approximation** [DHPAH19]. **-Bit** [HJLZ18]. **-Body** [KL00b, Alu96, BME93, BEM94, AE18, BOF16]. **-Box** [LM21, BH12]. **-Conforming** [DMMO05, JK11, DTYY18, ZWZ19]. **-Cross** [GMS21]. **-curve** [HO93]. **-cycle** [BGP94, Kwa99]. **-D** [BH97, BIA05, CCC18, GD03, HHLZ21, KP06a, LS12b, RH06, WZC19, vdsf21]. **-Diffusion** [SSR21]. **-Dimensional** [RF10, Joe93]. **-Discrete** [LdGK20]. **-Equations** [GXZ21]. **-estimator** [HW99]. **-extrapolation** [Ber97]. **-Factorization** [VM13]. **-Finite** [GL08, PDTVM08]. **-Fold** [ROO08b]. **-Galerkin** [LWZ17]. **-Independent** [HTB⁺05]. **-Lagrange** [BLS14, KL15, LNS15]. **-Laplace** [CK03]. **-Laplacian** [BI00, CS16, HKL23]. **-Level** [KL15]. **-Matching** [KPP⁺16]. **-Matrices** [BM12, Bör09, Vir07, May08]. **-Matrix** [BCK22, DHP17]. **-Means** [ZWG21]. **-Method** [PR09]. **-Methods** [TSK09, BGK15, WL08, GPHHAPR18]. **-Minimization** [HAS20, YG15, DGP10]. **-Multigrid** [HMM⁺21]. **-Multilevel** [BDK⁺20]. **-Norm** [BBR08]. **-Optimal** [APSG14, APSG16, AS18, HM20b, MG23]. **-Problems** [YZ11]. **-Projection** [EAS11]. **-Radius** [JP11]. **-Refined** [ACK19]. **-Refinement** [FHL13, TB99a]. **-Regularized** [CJY16]. **-Robust** [MPV21]. **-Scheme** [HWZ19]. **-Sparsification** [APSG14]. **-Splines** [LZ13b]. **-Step**

[Mou20, AMN15]. **-symmetry** [WAS94].
-Tensor [MMRN15]. **-Tensors** [GMS21].
-th [PP12b]. **-TV** [GLN09, SWU16].
-Version
 [AGH13, CDG17, CG99, Cas97, ZK96].
-Wave [WT23].

1 [EO15]. **14** [BEM94]. **1M** [Van20].

2 [EO16a]. **2000** [vdV01, vdVDE⁺02]. **2002**
 [vdVDE⁺03]. **2004** [Vas05]. **2008** [Tum10].
2010 [TBC⁺11]. **2012** [Ben13]. **2016**
 [Ben17]. **2018** [Yav19]. **2021** [BD23]. **2D**
 [BOB⁺19]. **2V** [BOB⁺19].

3 [Bur97, NKTY08]. **3-D** [Bur97]. **3D**
 [vLH14, Sar98].

4th [MCV17]. **4th-Order** [MCV17].

5/CM [BP97b]. **500K** [ROM18]. **5E**
 [BP97b].

60th [PS97].

754 [MRV06].

860 [Rot96].

94e [BEM94].

A-Optimal [HAS20].

A-Posteriori-Steered [MPV21].

A-WENO [WDGK20]. **AAA**
 [NST18, RBG23]. **AAAt trig** [Bad21]. **Abel**
 [HFL⁺16]. **Ablation** [CBK18]. **Abscissa**
 [MG12, Ros15]. **Absolute**
 [VK13, YYWY18]. **Absorbing**
 [ABK11, BHG14, FJ99, HY14, LZZ18,
 PJZ23, YWG21]. **Absorption**
 [LP96, MMY96]. **Abstract** [Del14].
Accelerated [AAAH⁺19, ACW21, BY93,
 CW17, CKLL16, CHJ16, CML⁺18b,
 DMSW10, DGK21, DL20b, DSL21, EG01,

FMYT16, FSvdV98a, FP14, FZB20, KK09,
 LS23, MR07, NKLW94, NAC⁺15, NFFP18,
 PS10b, RHSK11, VTD12, ZCZ04, ZW16,
 EB96, LK93, MW13, GHS⁺15].

Accelerating [BDM⁺18, BRZ14, CH18,
 CKBT16, DCP11, HOW17, IT09a, LRSV11,
 LY13, MG09, NKTY08, TMA18, ADRS95].

Acceleration

[BGOD08, BKH⁺22, BCK21, BER17, CC03,
 DH21, Gar05, HSMT20, HHSW11, HBS00,
 Kaw17, LSV13, OW00, PR23, RWA95, SO15,
 TEE⁺17, VN03, WZ19]. **Accessible**
 [KMA⁺12]. **Accretive** [DY23].

Accumulation [RW97]. **Accuracy**

[ATWK19b, ALRT17, AIV98, BBMZ20,
 BP97b, BCCI98, BRK16, CGAD95,
 CFKM18, CLAT10, CK94, Cor98, DMPV08,
 DS95b, DS97, Dor10, FO19, GL22a, JZ00,
 LS09, LB06, LT20, MR02, MKRK13, NN03,
 NL20, PQOB14, RX17, RGOY10, RF07,
 Sch96, SMYS21, SZS97, Ske00, ZZK15,
 ZLLT15, ZMK17, ZLJ96, Zin00, vHBTC12,
 vSRV11, Hig93]. **Accuracy-Conserving**

[MKRK13, vSRV11]. **Accurate**

[AdWR17, ABMR11, ABHS22, AO07,
 ABIGG16, AP12, BOB⁺19, BS18a, BWV15,
 BM18, BHM20, BR09, CH17, CCL⁺20,
 Che05, CCC18, CSZZ20, DH03, Drm97,
 DKM14b, EE14, GBCT10, GST12, GCG⁺19,
 HG02, HT13a, HLW00, Hen06, HSY20, JL11,
 JF16, KP22, Kou09, KP05, KM12, KR12b,
 Kye12, Lau22, LG09, LD16, LWW22,
 LFBO08, LXYZ23, Luu15, MC10, Nit99,
 ORO05, PJZ23, PKR⁺13, ROO08a,
 ROO08b, Rum09, SL20, Sha21b, SL09a,
 SC02, TBM21, TB99a, TWZ21, TXZZ22,
 VPP05, WL97, WM05, WRS17, WS20,
 Wu21, Yan21, ZCL⁺11, ZJC12, ZXY21,
 ZCP06, Zim14, ZPE12, vdVXX19, vWBV09].

Accurately

[Che16, DL20a, GSR19, MBKR22, WS15].

Achieving [BSA13, Ros05a]. **Acoustic**
 [AM19, ACHN21, BC06, BS06b, FKTW10,
 KRR23, Kös07, LLSX21, LH19, LXYZ23,

Mal07, MZ94, QRV21, RZ03, SWB16, Smi97, Str99, YWG21, ABMP22, YBM⁺18].

Acoustics [BHG14, Nat98]. **Across** [CYVK15, KM18, TLLK09, Lay06, LP06].

Action [AMH11, AM18, Ber98a, HK17, KR17, LYZ23, RX18, WZ21a]. **Actions** [ACG20]. **Active** [AS22, BBK21, CDW14a, CDW14b, CKBT16, DTR21, EPSS22, HSW08, KP11, LZMW20, PST15, UWWP23, YYS16, ZJX14]. **Active-Set** [PST15, YYS16]. **Active-Set-Like** [KP11]. **Activity** [RC06]. **Actor** [ZHL21]. **Actor-Critic** [ZHL21]. **Actuator** [ABD⁺17]. **Acyclic** [GTMP07, HÖU⁺19, MZW09]. **Adaptation** [AFMP15, BGGM22, CCPS20, Che94, DPF15, DF10, DEV16, DMRR19, Hua05, RH06, Wal99, WH15]. **Adapted** [AMP00, CCA03, DZ12, GHK14, Lab05, RHSK11]. **Adapting** [DBA19, HHMDC18]. **Adaption** [MP08]. **Adaptive** [AB02, AGI10, AHK⁺17, ACD23, AMM⁺11, AD18a, AD19, ARM⁺19, AFOQ19, ABIGG16, AW15, AGL13, AD06, ABI00, BBSV10, BB13, BMNV20, BMNV21, BB17, BLH02, BG14, Ban08a, BH00a, BL04a, BO07, BM17a, BBC⁺01, Bas98, BC06, BBSW94, BBC⁺16, BC09a, BK06, BS16b, BZ12, BB15c, BB05, Bör07, BFM⁺04, BFM⁺05, BMM⁺10, BMV11, BTGH12, BWG11, BH16, CW22, CHR99, CSW99, CP03a, CHW20, CD02, CWZ07, CCCZ10, CKLL16, CVK13, CDB13, CHH10, CGP19, CM13, CVE13, CPB19, DMS01, DJMR23, DMM⁺08, DM13b, DDGS16, DHJW08, DL19, DKKP14, DLZ10, DZ08, DMD⁺12, DSL21, DGvdZ18, EGLS21, EFHT23, ES17, EV13, EHW00, EMT09, FUNB18, FLU⁺20, FTY15, FL18, FL02, FNTB18, FR23, FKK⁺14, GYZ23, GT98, GG19a, Gia18, GB06a, GCG⁺19, GGS08, GN22a, GM19b, GC17b, GML⁺21, GG10]. **Adaptive** [HKO⁺23, HHM08, HS05a, HSK19, HHM17, HBB⁺16, HH02, HR99a, HW21, HKKR19, HKLW19, HKLW21, HKK⁺22, HKL23, HHP22, Hof05, HKB21, HEGH14, HJP04, HXX18, HJJ22, HS01a, HB97, HDF⁺19, HLZ19, HS94, HC20b, HLL⁺22, IJ08, JS93, Jah10, JTZ08, Jam98, JF11, JK11, JHJ12, JJK23, JILGZ20, JP97, Jou94, JGZ06, KKV13, Kaw17, Kaw18, KGS10, KV05, KKR16, KRT16, KY05, KHRvBW13, Kul12, KPP07, KO19, LG97, LMPQ03, LNP15, LLS22a, LS16b, LM14a, LZ21b, LJL98, LCL18, LKK18, Liv15, LT14, Log03a, Log03b, LFLS08, LK04, LR98, Mac98, MNRI19, MS13, MT19a, MH17, MV09, MFJ19, MK08, MRW15, MPV21, Moo00, MTV16, MS20, MGH21, NKLW94, NZGK21, NJ14, OB21, OPRB06, OS15, PBP14, PDTVM08, PZZB15, PW15, Peh20a, PTT20a, PP05, PCL⁺16, PD15, QZT11]. **Adaptive** [QDKW18, Rav02, Rüd94, SP03, SDNL10, SYZO15, SR18, SNB16, SXXN22, ST23, SK23, Spi16, Ste00, SMN10, Str94, TW12, Ten98, TLT12, Tra95, TPW09, TY11, TLE12, WW22, WMC11, WMC12, WG18, WLLZ18, WDGK20, WCL⁺21, WCHZ14, WM11, WMUZ13, Yu01, ZT17, Zas95, ZJC12, ZAD⁺16, Zha20, ZMS10, ZRK15, Zie12, aKT18, dVPS⁺17, dLRT09, vdDA12, EOD93, FF94, HL97, NP96]. **Adaptive-Krylov** [LT14]. **Adaptively** [BCGR98, HG00, Lee14, MBKR22, RKLN07, TT06]. **Adaptivity** [BSX22, BS23a, BP13b, CGKM16, CEJ⁺10, CPB13, CM99, FDE⁺06, Har08, KMW15, MCB18, MHS98, SV08a, WvdZSvB18, Yan18, vdZvBdB10a, vdZvBdB10b]. **Add** [BHL⁺20, Goe97]. **Added** [SBHS19]. **Added-Mass** [SBHS19]. **Additional** [UG19]. **Additive** [AP99, BV16, Bre00, CS99, CL11, CGG07, GH99, GC97, HJN17, HL20, HMR09, Jay98, Kra12, KLL⁺16, LJ19, LSC18, LKBJ18, MMK23, NT18, PS08, SCGT07, Vil14, Wan12, WGT14]. **Adequate** [FH06]. **ADER** [AGI10, BCI22, TM14]. **ADI** [DMML05, TV98b, ZzSpH14]. **ADI-Like**

[DMML05]. **Adiabatic** [Jah04].
Adjacencies [SRI⁺18]. **Adjoint**
[ATK12, AHHR16, Bou01, BCCX21,
CLPS03, CP04, CEJ⁺10, CSW14, FHFR13,
FR10, HTMM15, LQH21, Sch05, SU15,
TW13b, WLE⁺00, WMI09, ZS14, ZCS22,
GGS19, Sta97]. **Adjoint-Based**
[ATK12, CSW14, SU15]. **Adjoint-State**
[LQH21]. **Adjoints** [FHFR19, HM10a].
Adjusted [CHW17a, CHW17b]. **Adjusting**
[Ste02, Zha18a]. **Adjustment** [CLP08].
ADM [CE17]. **Admitting** [DMR17].
ADMM [FR19, STY21]. **Adsorption**
[BKBT18]. **Advanced** [HHR23, NP93b].
Advantage [MM98]. **Advantages**
[AR99, KB08]. **Advection**
[ADR14, ALLK15, AHH12, BSMM16,
BCI22, FL19, GLR23, GHH07, GGS08,
GSM20, HDF⁺19, KMER22, KG14, LW12b,
LSV13, MRFV18, MS98, MYN20, NN03,
PDH09, PH13, SBP04, SWN20, SSR21,
DFK23, TZ18, TM14, WXK04, WDE⁺99,
WL01, YVB98, ZK14a, Zbi11, ZJC12,
ZRTK12, ZTM⁺16, PCDB96, PW12].
Advection-Diffusion
[ADR14, AHH12, BCI22, GGS08, LSV13,
WXK04, WDE⁺99, ZJC12, ZTM⁺16].
Advection-Diffusion-Reaction
[GHH07, PDH09, SBP04, TM14, ZRTK12].
Advection-Dispersion [ALLK15].
Advection-Dominated
[KMER22, PCDB96]. **Advection-Reaction**
[GSM20, WL01]. **Advective** [XCS16].
Advective-Spectral-Mixed [XCS16].
Adversarial [YZK20, YLG22].
Aeroacoustic [Dor10, RSA05].
Aerodynamic
[Har08, HS06b, Haz08a, Haz08b].
Aerodynamics [SD21, Tsy99]. **Affine**
[KA95, Kor93]. **after** [GB98]. **Age** [BF13].
Agglomeration [BCDE21, JV01].
Aggregated [BMV18, BMNV21].
Aggregation [BFM⁺04, BMM⁺10, CM09,
Cho05, DMM⁺08, DMSW10, DMM⁺10a,
FKK⁺14, GaP08, GV16, JKKM01, KW10b,
MN08, NN17, Not12, PoH09, ST08, TAY⁺19,
TY11, TY15, DS96]. **Aggregation-Based**
[FKK⁺14, JKKM01, MN08, Not12, TAY⁺19].
aggregation-disaggregation [DS96].
ahead [FGN93]. **Aided** [HOY03, YTT21].
AIR [MRS18, MDA22, SSR21]. **Airfoil**
[Yiu95]. **Aitken** [BGOD08]. **Aitken-Like**
[BGOD08]. **ALE** [ADK⁺18, MRI21].
Algebra
[HM20a, KM18, PSA99, RTR⁺16, LJ93].
Algebraic [AC05, AJS22, AJ22b, AJR23,
AM20, AS94, AP99, BQQ08, BGL08, BSH16,
BS02, BFJ⁺15, BDO12, BBKS20, BFG⁺16,
BGH⁺03, BHST08, BGS09, BBB⁺11, BB03,
BBC07, BNN23, BF10, BK14, BCK⁺18,
BCF⁺00, BFM⁺05, BTB05, BHP98, BK11,
BEM17, CG95, CLPS03, CGL01, CC02,
CH02, CS11, ICCVEKV17, CW93, CFH⁺00,
CKK03, DMMO04, DMM⁺10b, De 12b,
DM13b, Der08, DKL⁺19, Doh07, DHHR19,
Elm98, Elm00, EN09, FS14, Gar97, GB98,
GOS03, GPS95, GLMS22, GW00, HKR02,
HR05, HTMM15, HMN⁺13, HvdG96,
HTB⁺05, JFSO23, JR19, JJK23, JSV10,
KR18, KKV13, KVV23, KY03, Knu01,
Kra08, KMRW97, LO11, LB12, Liv15,
MO08, MFJ19, MFY23, MOSS17, MRS18,
MS19, MMRS19, MV94, MB00, MBT21,
Mis01, NN12, NN14, NAC⁺15, Not12, Not17,
Ols07, OST11, OT11, PRM97]. **Algebraic**
[DHM⁺23, PBV18, Pul08, RX17, RMB00,
Sch05, Sch09, SS10a, SSR21, SH14, TAY⁺19,
TPT⁺16, VV13, Vir07, WHCX13, WMSG09,
WE06, YGB⁺05, Zas95, BHP94, HTW⁺12,
Lam97, MT97a, MS93a]. **Algebraical**
[WB99]. **Algorithm**
[AKA13a, AKK14, AM18, ALLK15, AFK15,
AFS19, And99, Ash95, AHHR16, ABL⁺20b,
Bad21, BB17, BS99a, BS02, BK98, BK99,
BS05b, BS98, BCF01, BDKR21, BG17a,
BG17b, BI00, BC09a, BK06, BZ21, BR05b,
BRR18, Boz09, BZ97, BVW03, Bru15,
BDR18, BLNZ95, CZ10, CD15a, CMS94,

CC08, CC10, CP03b, CK19, CDM⁺13, CHO12, CP15b, CRT11, CWD13, CSW10, DHN17, De 12a, DM13b, DZ12, DL20a, DP07, DDF00, DTR21, DF20, DPV05, DP20, DTV13, DHPAH19, DGLW16, EW00, Ein19, EL19, EHY21, EAA21, EBSS⁺11, Ett16, FL18, FS11, FP07, FJP99, GN16, GKRNS19, GJS19, GKS20, GL21, GH07, GH15b, GVP06, Gar97, GM21, GAMV13, GV13, GL03, GLR07, GM13, GS05, GKK10, GLC21, GMPZ06, GLN09, GDB⁺22, GrM10, HJN17, HLD12, HT14a, HO18, HMST11].

Algorithm

[HHMS15, HJ07, HHSW11, HKO99, HL95, HvdG96, HWD02, HS06d, HOW17, HH16, HVW95, HR98b, HS01b, HHL15, HYC16, HMvdG18, HSW08, HGPM14, IJ08, JK07, JK15, JN10, Jou94, Kal20, Kas95, KV12a, KHRvBW13, KHRvBW14, LV98, LRSV11, LCN14, LLS13, LLS22a, LT09, LHN96, LZ99a, LZ99b, LGP14, LFJS14, LXV⁺16, LYL⁺11, Lin16, wLxY00, LTzT21, LHL⁺22, LSZ23, LN23, LB06, Liv08, Liv15, LWK⁺16, LR98, Lyo11, MG07, MG09, MG11, MMM⁺94, MK00, MBGV16, MV16, MN11, MBS22, MPRS23, NST18, NK15, NGX14, NCT99, Nov15, Oet99, OKF14, PKR⁺13, Par17, PGLD96, PSB⁺06, Pet99a, PDMY14, QDKW18, Rav05, RC06, RNV17, RG20, RGOY10, RBG23, RC23, Ruh98, RCLO18, SYEG00, SBK18, SSW21, SL20, SBHS19, SX17, SW22a, SW22b, Spi16, SV08b, SV11, Str00a, SF99, SW10b, TN16]. **Algorithm** [TZ18, TVV20, TCDS21, TD99, TMA18, VD10, VMG09, Wal14, WC00, WMI09, Wan13, WLLZ18, WYL⁺22, WC23, WMSG09, WYGZ10, WMBT19, WL13, WWJ12, WC17, Wu18, WZ19, WZ21b, XK08, XYZ05, XAW17, YMW07, ZYZ09, YCC10, Yin09, You94, YWW23, ZTK19, ZZ18, ZYZ05, dMHJM00, von97, Alu96, BZ93, BPT93, BDP96, CGS⁺94, DS93, EB96, FGN93, Fre93, Kor93, Lan93, LV94, LL93, MMM⁺95, MMY96, MS93b, NT20, NP93a,

OS95, PS93, Saa93, Smi93, Wat94, LLS22b].

Algorithmic [APvDG12, HT16, Moo00, NL20, PXY16, SW17]. **Algorithms** [AB08a, AdVC00, Ain14, AMH12, AMHR15, ABB22, ABC⁺23, ACD95, ACK19, BCGR98, BDS98, Ban10, BH00a, BH20, Bar00, BHT09, BM05, BF95, BFK03, Bit99, BB15c, Bja19, BT97, BHM20, BTK19, BtVÇG⁺10, BM95b, BRZ14, BMV11, BHM19, BDG20, BWG11, CGK⁺98, CK02, CJH11, CGS02, CWC08, CCSS03, CH02, CKY98, CC12a, CD15b, CLLW20, CD01, CYVK15, CWY17, CRR18, CMM95, CDFQ11, DJMR23, DJ07, DAE02, DW17, DSC05, Dor98, Dor10, DW94, DG99, EHN12, EOZ94, EY07, FLX21, FMYT16, FWA⁺11, FSvdV98b, FW97, Fra98, FFS07, GaP08, GJSZ13, GLRS23, GLxY19, GTMP07, GST12, GGLT00, Goe94, GY09, Gon15, GG21, Gri94, GE96, GZT⁺19, HRV11, HM10a, HV01, HÖU⁺19, HK95, HW09, HMW07, IBWG15, IMS96, Jia14, JY21, JP97, KKK16, KCL16, KM97, KT15, Kar96]. **Algorithms** [Kea97, KS94, KPL13, KK02a, KPP⁺16, Kir14, KEF11, LS99, Lan98, LCE22, LS94, LS22, LXES19, LZ21b, LGY⁺23, LK15, MCL19, MS07d, MNBK10, MO00, Mar09, MH16, MRS16, MT06, MZW09, MS07e, MDG⁺18, MW16, NH13, NKG21, PVK16, PH13, PSSW15, PBJ⁺96, PBC05, RNR13, RT05, RMD08, RKvdDA14, RGG15, Ros15, SKMF15, SIDR15, Sch19, SR16, SIS96, SRT23, SDH21, SXK17, SvG08, Ste01, ST98, SWU16, SW15, SW10a, Sun95, Ten98, TAHR15, VMV15, VD23, WLX⁺13, Wei99, WNC08, WSP22, WDT22, XB16, XJS13, XCLQ20, YG15, YZ11, YFS21, YSZ14, ZT17, ZLLT15, Zha20, ZMqCS21, dWPR20, vdDA12, BGP94, BME93, BEM94, Car93, CG93, EG93, Göt94, NP93b]. **Aligned** [GH14, GHS⁺09, MB13]. **Alignment** [NKG21, ZZ04]. **All-at-Once** [LLN21, MPW18]. **All-Electron** [GHKL22]. **All-Mach** [BQRX22]. **All-Speed**

[AIP19, CLLY20]. **Allen** [ALl19, HX21, HYW20, ILTZ21, LQZ22, ZD09]. **Allmaras** [DHE13]. **Allocation** [HS99a, SK23]. **Almost** [CPW15, DL17, FD03, Jah04, NV98, PWZ10, Sei23]. **Almost-Adiabatic** [Jah04]. **Almost-Invariant** [FD03]. **Along** [ODN17, BBT19]. **Alternate** [CJ95].

Alternating
[BF06, CG18, DS14, GKK15, HV96, HRS12, JSZ22, KS23, LPS13, LDM00, Lui00, Lui01, MKB22, NWY10, NWY11, Rak21, RDB16, SL11, SMYS21, Sta94, WY12, WY13, YZ11, YYWY18, ZNZ16, Gar96, Li94, ST96].

Alternating-Direction
[BF06, HV96, JSZ22]. **Alternative**
[JSZ13, May05, Rah13, Wal14].

Alternatives [HvdV03]. **Always** [NPS22].

Ambiguity [BBC⁺21b]. **Amenable**
[NPS22]. **American** [AO07, GMP19, HY08, HFL11, IT09b, KL11, Toi08, dFL05]. **AMF**
[GPHHAPR18]. **AMF-type** [GPHHAPR18]. **AMFR**
[LSPRV21]. **AMFR-W** [LSPRV21].

AMG
[BFJ⁺15, BBKL11, DDF21a, Ema10, HV01, IFSJ21, KV12b, LSY21, PS11b, Vas10].

AMG-DD [BFJ⁺15].

AMG-DD/AMG-RD [BFJ⁺15].

AMG-RD [BFJ⁺15]. **AMGe**
[ICCVEKV17, BCF⁺00, CFH⁺03, HV01, KLV⁺16, Wab05, JV01]. **AmgX** [NAC⁺15].

AMP [SBHS19]. **Ampère**
[PTvR⁺14, TKCC13, DL19, BH23, BW09, Fro12, HCX22, NN19, PBtTB⁺15].

Amplification [DMBB10]. **Amplitude**
[AIL05, GBS⁺22]. **AMPS** [YPHH17].

AMR [BH17]. **Analogue** [RF11]. **Analyses**
[MMT15]. **Analysis** [AV14, AdVC00, AB19, AA00, AKW17, AW20, ABC00, AKMRB22, ASZ07, ACF09, ABTZ14, BA05, BHN10, Bar12b, Bar05, BW00, BPB07, BW11, BM05, BBR04, BHL⁺20, BCM11, BR18, BVV08, BGP94, BHM19, BHM⁺21, BS06b, BT16, BDS20, BDW11, CKOR16, CLPS03, CH17, CRS⁺18, CP03a, CJ09, CDF18a, CW97, CFKM18, CGSR20, Cha18, CRS21, CL18c, CV94, CIZ16, CWY17, CG10, CLN12, CAG⁺19, CHM21, CWG10, CBF17, CE16, CHKsL20, CSW14, DD23, DHL21, DEM⁺20, Den97b, DJ07, DH95, Di 95, DKKP14, DFH⁺19, DT00, DTM05, DHP17, DKSW19, DMSC18, DP03, DMM18, DMM19, DHE13, DP16, EPSS22, EH18, ES18a, EMT09, FUNB18, FHL⁺23, FMRR13, FCZE14, FDH⁺20, FMB13, GS98a, GV07a, GJSZ13, GN16, GLRS23, GH15b, GGL09, GLS08, GPW22, GB06b, GGKM07, GKT09, GV07b, HMST11].

Analysis [HTMM15, HvBW23, HRD21, HHvR03, HO96a, HSN⁺20, HM19a, HM20a, HL98, HLT16, HLNS19, Hös94, HK95, HV04, Huc08, IHTR12, JMN01, JG02, KO05, KH22, KSB11, KY03, KGR16, KH18, KRGO19, LQ19, LSV17, LRW96, LNP⁺07, Le 05, LRP07, LP08, Li99, LSN17, LZZ18, LZ21b, LW15, LS05b, LC05b, LW04, LR20b, LX16c, MMPR93, Man95, MRFV18, MB02, MSS10, MBT21, MEHL16, MW08b, MMS05, Mit23, MN08, MNZ15, NM13, NN05, OC03, OW02, PMCA15, PVC17, PR22, PV15, Rei20, RWKW14, RGOY10, RGG15, RX18, RLC08, SBHS19, SW22a, SKJ⁺13, SV08b, SV11, SNB08, SD21, SW15, TW13b, TBH23, TV93, TW93, VXCB16, WC03, WL08, WRSZ18, WB00, WSP22, WOW00, WO01, WW03, WTWB09, WE06, WZ15, WX17, Xie05, YPN⁺01, YFS21, Yiu95, YWW23, ZTK19].

Analysis
[ZCZ04, ZMS21, ZCS22, ZF09, ZPE12, dLRT09, dIRRG19, vGEV07, MP94, SA97].

Analytic [Bar14, KBV09, LCD14].

Analytical [BK04, CFH19, PHA18, Sei23].

Analytical-Numerical [CFH19].

Analyticity [GJ05]. **Analyzing** [SAY03].

Anchor [BTY08, LT09]. **Anchor-Free**
[BTY08, LT09]. **Anderson**
[BCK21, DJMR23, DH21, EMM⁺99, FZB20, LSV13, PR23, SBR06, TEE⁺17]. **Angle**
[DDF⁺21b, KR18]. **Anisotropic**

[ABBM98a, ABBM98b, AFMP15, AP99, BS08, BL23a, BP13b, Cao07, CPB13, CMK11, CDN16, DPF15, DMRR19, DFL20, DW05b, DK03, GMS02, GJZ18, ISG15, KLY19, KKR21, LZ21a, Lee10a, LPP09, MS13, MV94, MP08, MK96, MMV98, Pic03, Pic10, PABG11, Sch98, TLLL23, TLE12, WH15, WYT18, WY19, Win10].

Anisotropically [GHH07]. **Anisotropy** [BT99]. **Anomalous**

[CK17, CLAT10, CHL16a, CHL16b].

ANOVA [BPS22, CRO23, ZCK12].

Antarctica [HPR22]. **Antenna**

[ATV07, BH07]. **Antidiffusive**

[BCV13, MS98]. **Antipersonnel** [XK08].

Antiplane [GT98]. **Antireflective**

[CH08b, SC03]. **Antoulas** [DJMR23]. **Any**

[Ain14, AGK18, Bja19, CCF14, PCFN16].

AP [Jin99]. **Aperture** [BL03a, BHR23].

Application

[AdSGC12, ABdSF15, AKW17, AMH11, ACG20, AH20, AHDK14, AWA⁺18, ALM22, ACCP13, BG22, BLV17, BGL⁺21, BBH18, BCC20, BG05b, BHL⁺20, Bla03, BLGL11, BBMR03, BCY21, BDR18, BTGH12, BTGMS13, BG13, BFSN08, CGL⁺12, CGO22, CCG14a, CTB15, CM98a, CM98b, CH17, CS18b, CBK18, CHKsL20, DMM⁺08, DOKM22, DKL⁺19, DKO12, DCSO10, DKS21b, EBSS⁺11, FVV21, FHL⁺23, FDFW07, GLM22, GTMP07, GM21, GSV20a, GGOY02, GV13, GRL10, GW98, GJ07, GL10, GC16b, HKA⁺21, HSS08, HKL23, Hen05a, HDZ16, HPZ19, HBSC97, Hua05, HTH⁺16, Hwa07, ISG15, KOV15, Kra12, LQ19, LCH09, LSV17, LLS13, LLS22a, LW12b, LW14, LYL⁺11, LJL98, LCH99, LPP09, MR04, Man99, Mar01, MWBG12, MMV98, OS14, OW00, PGLD96, PS19a, Pel18, PTSA23, PMSG14, Pic03, PQR20, PP13, PS10b, QZZ19, RWA95].

Application [RDB16, RSA05, SBK13, SGS22, SCM10, SP02, SO10, SF99, TP18, TET10, TZ14, TTY16, TYUC19, Wab05,

WRB⁺15, WFG⁺20, WCG23, XYGO01, XYZ05, YSX17, Yan14, YZ05, YPHH17, YR12, ZHQ20, de 99, Ber97, CSS93a, DG95, MMPR93, YGCP96]. **Applications**

[AE18, AKM⁺14a, ACK19, BF01, BOR97, BGM22, BTY08, BM10b, BR09, BC09b, BP22, BGMW17, CB98, CEOR18, CIZ16, CWY17, CL08, CL21, CFM96, CGI11, CDW14a, CDW14b, CGMV05, CST16, DEM⁺20, DF20, DTV13, DGSW10, DMM20, DRW20, DW05b, DSL21, ERSZ17, Ema10, ES00, FMYT16, FKTW10, FFSS13, GaP08, Gar00, GRPG01, GU17, GLW18, HT09, Hri03, Hri05, HS21, HiH18, Jia14, JZX⁺21, JLYZ23, JED10, KK18, KR17, KPÇA12, KVMK01, KLL⁺16, Lee13a, LZ01, LWYxY18, LTG22, Log03b, LD04, MRFV18, MSL13, MSW05, MZDK22, PPS22, PH13, RGG15, Rub12, RCLO18, RKW20, SM17, SPS18, SZ06, SY10b, SY12, SW16, SZ00, SS03, SZS97, Smi97, TPT⁺16, WS07, WS06, WM05, XZ10, YMM14, ZWH⁺14, ZWZ19, Zyg11, CC96, LCW95]. **Applied**

[AA13, BLS14, BMV13, Bur23, CV07, CBS00, DDGS16, DLM16, DHJW08, DHE13, GLOR16, HML⁺04, HLP08, KM98, LP22, MNS07, MP20b, NM13, PKD13, Ser06, VSBH99, ZG23]. **Applying**

[CHH19, Che16, DJ07, SS10a]. **Approach** [AK09, AJ22a, AP97, ATV07, ACW12, AB21, ALZ14, AdSK19, ALM22, ADLW19, BCS07, BDM⁺18, BO06, BC02, BLMS21, BLMS22, BTY08, BHST08, BCCX21, BGR16, BP06, CF07, CW14, CS18b, CV94, ICCVEKV17, CN10, CH09b, CRV13, CE17, DHS22, DGS08, DTR21, DMN08, DP03, DCL⁺21, EVLW17, EK14, EK10, FR10, Fli13, For95, FKRH22, FGH⁺08, GMP19, GB98, GM20, GK98, GLT09, HNU23, HKLW21, HHvR03, HW03, HT16, HM19a, HTW⁺12, HSTH18, Hor10, HC98, HCL23, HLZ13, HSY20, HSSZ09, IT09b, JK12, JR19, JZ13, KV20a, KR23, KHE07, KSD10, KY03, KLT06, KL13a, KS15a, KRDL18, KSW20, KZ16,

KBP17, LCG21, LPP19, LSN17, LLSX21, LW15, LW12b, LL20, LW20a, LB07, LB08, MT19a, MFJ19, MKWG15, MO10, MDM15, Mis01, MR18, MM07, NL20, OS14, OB08].

Approach [PVV11, PSLG14, PQOB14, QGVW17, RWDL19, RS02, SCC17, SB15, TGS08, TPT⁺16, VS17, VO19, Vog16, WL04, WZB⁺23, WE13, WBS⁺17, WP98, Wic17, WB08b, XKKN22, YY18, YBM⁺18, ZK14c, Zen16, ZCE06, ZH09, ZV22, Zim14, ZVF18, dFL05, dSK11, vdZvBdB10a, vdZvBdB10b, LL94, RG94]. **Approaches** [CL22, CS23, CSW14, KRR23, KY19a, LZ04, SW09, ZLLT13, DS95a, Rot96].

Approximate [GSS12]. **Approximate** [AP14, ABC00, BMT96, BT98, BT00a, BCT00, BBFJ16, BCFJ19, BB05, BC13, BT99, BT01, BGMR01, BJW18b, BH14b, CDGS05, CBG12, CK23, CBCR14, CS97, CS98, Cho00, CPD17, CST⁺13, DKDH20, DH16, DOKM22, DW05a, EHS⁺05, Ema10, GWMG03, GNL14, GS98b, GH97, GNYZ18, Gur04, HC05, HLR18, HWS05, JFG15, JP08, KM97, KRT16, LRW96, LGY⁺23, LK21, LGCL21, MG09, MRS18, MXB15, MMA98, NP10, RT10, Reu99, Saa03, SE11, SE13, VBA18, VW98, WZ03, WG20, ABS96, EOD93, SS93b].

approximate-factorization [SS93b].

Approximate-Inverse [GS98b].

Approximating [AD21, GKNW18, GWBW22, HMAS17, OSS22].

Approximation

[AN17, ACD23, APZ13, AG18, AJ21, ADKM03, ARM⁺19, AT19, ADS21, AFRV19, ABB23, ARM23, Bad21, BG14, BGN07, BGN08, BPS22, BW20, BG98, BBKT15, BG17b, BSX22, BS23a, BB15c, Bja19, BKS16b, Bör07, BP13b, BGH23, BHW99, BTGH12, BFI07, CGGP19, CGGGS15, CLL20, CZK15a, CNP12, CH08a, Cha07, CL23, CSZZ20, CRO23, CL08, CL21, CKO15, CMM95, CE16, CPB19, DU19, DLY16, DB94, DP20, DQQ13, DHPAH19, DKS21a,

DKS23, DFW21, DGB15a, DGB15b, DHO12, EL03, ERL22, EIJH20, EIL01, FV06, FS05, FNTB18, Fis19, FT03, FDFW07, GJ08, GSWZ20, GHHK15, GS18, Gee19, GPW22, GI17, GN19, GC19a, GOS12a, GG21, GT94, GG09, GOV06, GCD18, GPSY17, GNPT18, GdLP⁺18, GNYZ18, HVK18, HLW00, HC18, HR99b, ILW17, IM98, JNZ17, JK07].

Approximation

[JP16, JKL22, JSPC97, JKY21, KK18, KR14, KLS⁺15, KK13, Kaw17, Kaw18, KPP⁺16, KP21, KK09, KS11, KG18, Kra12, KLL⁺16, KKK18, LMM18, LPS10, LLW16, LZZ18, LSY19, LWW20, LSM22, LCL18, LYLC21, LLJ22, Mar01, MRT00, MKB22, MNvST13, MR94, MNZ15, NZZ06, NST18, NJ14, NCCR22, NSK10, PSA99, PPT11, PSSW15, PCD17, PC98, QRV21, Rah96, RO15a, RW07, RC23, RAT18, SStM23, SY10a, SY08, SX16a, SX17, SZ00, SP16, Ste99, ST11, Str00a, TE07, TWK18, TWJ⁺23, TYUC19, WR13, WLE⁺00, Wan12, WH15, Wat04, WY09, WSX17, XL18, XKKN22, YSX17, ZKN20, ZZ22, ZZL22, ZRK15, Ain96, AE95, McG95, NT20, NCV06]. **Approximations**

[AD19, ABHS22, ABBT⁺20, BH14a, BKS16a, BKFG19, Bru15, CR23, CKK20, CAS11, CGP22, CJ95, CM13, CHH01, DD13, DL20a, DMSC18, DF21, EZ11, FLU⁺20, FWA⁺11, FJHM19, GP99, GT06, Gos12b, GMS02, GPT22, HHS⁺16, HMAS17, HM19b, HBS00, KP09a, KM97, KS99, KL05, KD20, KEC23, MMZ03, MS13, MW22, Nap23, RT01, RPM23, SL10, SSC⁺15, SCW⁺17, Str99, Tal15, WGT14, ZD09, ZNX14, vdEH05].

Approximative [KKS08]. **ArbiLoMod**

[BEOR17]. **Arbitrarily**

[DS16, GZW20, GHS⁺09, HN19, KMV99, KZ16, LYZ20, RMB00, Yan22]. **Arbitrary** [ADR14, AAD11, AS16, AD18b, ACK19, AIV98, BEOR17, CL10, GPSY17, ISS19, JM18, KPS19b, MBGV16, MH16, MYN20, NSK10, PP97, RT99, SG04, TC12, WK06, Wan22, YYY11, DR93a]. **Arbitrary-Order**

[AD18b]. **Arbitrary-Precision** [JM18].
Arc [CDM⁺13]. **Architectures**
 [AHK⁺17, ABC⁺14, CP95, DBA19,
 EERT23, GV15, Gon15, GKN18, HWD02,
 LD11, PDE⁺17, PK19, Pip13, PR96,
 RTR⁺16, TD99, YS16, BPT93]. **Arclength**
 [LMR97]. **Area**
 [KEF11, PP97, SCDM⁺10, ZF14]. **Areas**
 [MDA22]. **Arising** [ABBT⁺20, BGL08,
 BSSW13, BLM22, CCQ16, CHH10, DHM22,
 FGS14, GHN01, GV98, GN23, GLMS22,
 HL10, HZ16, HL17, HLM16, LSZ23, PNW16,
 PS13, DHM⁺23, RG07, RH09, Slo02, WW03,
 WJS23, ZFwCW15]. **Arithmetic** [ABB22,
 AT15, BCK22, CJ09, Drm97, FHL⁺23,
 GLC21, HJ18a, HP19, HP21, JK12, JF16].
Arnold [CGP12, GK18]. **Arnoldi**
 [BS05a, BG17a, DCP11, EPE05, ELM21,
 GN14, GT94, JMR17, LPS10, MY18,
 SSW98, TT96b]. **Arnoldi/Lanczos** [GT94].
ARock [PXY16]. **ARPACK** [WT01].
Array [IS17]. **Arrays**
 [BBH⁺16, KK09, ZMqCS21, OA93]. **Arrival**
 [RMD08]. **arrivals** [CC96]. **Art** [GMSB16].
Arteries [SZZ21]. **Artifacts** [CDBH16].
Artificial [Dor10, GMS02, HC20b, LN03,
 SM19, SD11, Tsy97]. **Ascent** [DZ12]. **Asian**
 [Mar03, dFL05]. **Askey** [XK02]. **ASKIT**
 [MXB15, MXYB16]. **Aspects**
 [PF94, SW17, SD10, Huc93, RST93, Sun93].
Assembling [Pet99a]. **Assembly**
 [AAD11, CGO22, RKL09, WH09].
Assessment [ANP00, Toi96, VBA18].
Assimilation [BZ97, BGR16, CHL20,
 CH09b, GLS08, GS12, PGLD96, RSNR17,
 RLG98, TP18, TZ18, ZFHS15]. **Assisted**
 [CVE13]. **Associated** [DB94, RC06].
Astronomical [CJN13]. **Asymptotic**
 [AIP19, AT20, AKLP10, BLR14, Bur97,
 CKK20, CH08a, CGK13, CDN16, DGS08,
 DH21, DLV17, DPS18, GK00, HG98, HT14b,
 HW14a, JMN01, Jin99, JS10, JW13, JLP18,
 Kla98a, KH18, KLLM22, LS12a, LFH19,
 LM08, Liu20, LS23, MBS22, NBA⁺14, PL21,
 PDA09, SL09a, SM18, SZW20, TWZ21,
 WY19, YJ13, BW93, TR93].
Asymptotic-Induced [Kla98a].
Asymptotic-Numerical [GK00].
Asymptotic-Preserving [AIP19, BLR14,
 CDN16, DPS18, Jin99, JS10, JW13, JLP18,
 LFH19, LS23, MBS22, WY19, YJ13, LS12a].
Asymptotically [APZ13, BV98, CF23,
 GDC⁺23, HM20c, WZ18]. **Asymptotics**
 [Gar94]. **Asynchronous** [AAII98, FR19,
 GBM22, GBC⁺20, GKL08, HSF23, HKT01,
 KN21, LMPQ03, MGB18, PXY16].
Atmosphere [GKC13]. **Atmospheric**
 [BZ97, FL19, GC16a, GRL10, JSPC97,
 LCH09, NL20, RW97, TGS08, YC14].
Atomic [CDS98]. **Atomistic**
 [OZ16, Sha12, WLLZ18].
Atomistic/Continuum
 [OZ16, Sha12, WLLZ18]. **Augmentation**
 [KNN12]. **Augmented**
 [AVBTG17, And17, AT23, BR05a, BW21,
 BO06, BW11, CJY16, DGRZ15, DLP⁺21,
 FMW19, FGO20, FGM08, FL08, HVK18,
 KS13, LFM22, OB08, PSLG14, hSSW23,
 Vog16, Wic17, XXZ20, YPHH17, AF15].
Augmented-RBF [AF15]. **Authority**
 [FLM⁺05]. **Auto** [Der08, MW13].
Auto-accelerated [MW13].
Autoassociative [SAY03]. **Autoencoder**
 [BGH23]. **Automated** [BL04b, DJ07,
 FHFR13, FHFR19, GGOY02, KXS18,
 MGG19, MBM⁺16, ØLW08, RL13, VR16].
Automatic
 [Bal00, BBR04, BV00, CJK10, CV98, CJ99,
 DM16, GM00b, HHR23, HS18, HBSC97,
 JK15, NRO22, PT08, QDKW18, Sar97,
 SSW18, Sch18, SIS96, XC13, AMB⁺94].
Automatically [ADGM98, Gu93].
Automation [FCF14]. **Autotuned**
 [DCP11]. **Autotuning** [HEGH14].
Auxiliary [BBH20, CS18b, CS20, Fu21,
 HSY20, JY21, KV20b, KV12b, Lee13b, LL20,
 LSZ23, Tap22, WHCX13, HS21]. **Avascular**
 [BCG⁺10]. **Average** [DSS20, Kaw17].

Averaged [DHE13, GG05]. **Averages** [ADH99, BBT11, KOSB16]. **Averaging** [CP05, CP07]. **Avoid** [May08]. **Avoidance** [AS21]. **Avoided** [BG11]. **Avoiding** [BMP22, CKD13, DDF⁺21b, DFDM19, GM15a]. **Aware** [AAB⁺16, ABST13, GMPZ06, LGH⁺13, TPQD22, Til15]. **Axis** [Zhe07]. **Axisymmetric** [GGZ02, KCL16, Kup98, MCT⁺05, Nit99, QRV21, Ros05b].

B

[CML⁺18b, KFR21, PG22, Red99, VHSP20].

B-Spline [Red99]. **B-Splines**

[PG22, VHSP20]. **Backprojector**

[DHHR19, EH18]. **Backscattering**

[TBKF14]. **Backward**

[BM17a, BGS17, BPR16, BRR18, CKOR16, CHM21, DP16, GPW22, GGL07, GM11, HM20a, HLY13, Kas95, MO10, MT06, PS02, ZZ22, ZCP06, ZFZ14]. **Backward-Facing**

[GM11]. **Balance** [BLMR02, DKDH20,

KW10b, SSB08, PSB⁺06]. **Balanced**

[ABB⁺04, BKS16a, BBF⁺22, BMMM08,

BL05, CCKP21, CCM08, CK15, DEN21,

DRFNP07, DQ22, GCD21, GdLP⁺18,

HSS08, KPS19b, KLLM22, Liu20, LXL11,

OPR23, PN19, TKK16, YLF23, Gos12b].

Balancedness [WX21]. **Balancing**

[BMP14, BMP16, BO17, Bas98, Ben01,

BHM19, ÇKAA22, GGB22, GPTV15, KR12a,

KWG⁺20, NV05, Ten98, WC00, ZT17]. **Ball**

[BT20b, LLZ09]. **Balls** [BLMS21, BLMS22].

Banach [MPRS23, NS21, YZ05]. **Band**

[BF01, DJP00, GG09, TLLL23, Wil09,

CN93, CT94]. **Band-Limited** [GG09].

band-Toeplitz [CT94]. **Banded**

[Lan19, LNC05, MKSG10, Mor23, PS18,

VD23, BW93, Lan93, Tre93]. **Bandit**

[XKKN22]. **Bandit-Learning** [XKKN22].

Bandlimited [BR14]. **Bands** [GT98].

Barotropic [CDF18a]. **Barrier**

[BK20, DMM⁺16, KM18, Lu95, ZK14c].

Barriers [LM21, MJR05]. **Barycentric**

[AH18, BHK14, FNTB18, SV13, WTG12].

Based

[ACVZ12, AGI10, AGSS19, AMM⁺11, AdVC00, ABC⁺14, AKA13b, ALLK15, AHT12, ALMR17, AT19, AdWGV⁺20, AKMRB22, AB08b, ABE⁺17, AWA⁺18, ADH99, ATK12, ACF09, ADLW19, BQQ08, BMNV20, BMNV21, BF01, BCR11, Bar12a, BCMW20, BMaK19, BS16a, BB08a, BOF16, BN98b, BzCS11, BGGM22, BSS09, BSSW13, BG21, BO06, BW11, BC09a, BPS13a, BGPS21, Ber00a, BV20, Ber98b, BCJ⁺21, BLP14, BDvdG05, BI09, BHST08, BG20, BCKK16, BS05f, BZ15, BBT11, BCF⁺00, BH23, BTGH12, BGL06b, BH17, BGMW17, Buv20, CCM05, CL11, CDBH16, CHV⁺18, CCJ21, CPP⁺17, CB98, CHR02, CGC21, CEJ⁺10, CBG12, CV07, CKD13, CHP20, ÇAK11, CD13, CGM99, CMM00, CC03, CKXZ18, CD20, CS23, CL18c, CCA20, CCFG23, CBS00, ICCVEKV17, CJK10, CAG⁺19, CBF17, CDN16, CSW14, AGJT21, DHS22, Dk00, DL20a, DMBB10]. **Based** [DL23, Doh03, DPW19, DHP17, DGB15a, EHS⁺05, EOZ94, EOVS05, EN08, EK14, EHLW20, FO08, FLX21, FWA⁺11, Fra98, FV01, FN94, FM07, FM99, FKK⁺14, FGH⁺08, GVP06, GSWZ20, GHHK15, GL18, GLS13, GC16a, GLQ16, GHKF22, GY05, GSS00, GST23, GBDD10, GCD18, GT19, GHS⁺09, GMPZ06, HKYY16, HKF⁺13, HNU23, HH13, HKR16, HRT13, HS06c, HTW⁺12, Hof04, HLZ19, HR99c, HJMS07, ILW17, ILK05, JKKM01, JKY21, JMNS16, JS10, JV01, Jou94, JGZ06, JK00, KXH21, KV20a, KVV23, KKP14, KH14, KB08, KMW15, KA95, KM97, KASL21, KRR23, KMR01, KHE07, KWG⁺20, KKT19, Kra08, KBP17, Lan98, LLHF13, LS95, LZ17a, LFB13, LNP15, LN17, LM08, LT09, LX14, LFJS14, LJ17, LSY21, LLL08, LL08, LJ95, LYLC17, LSZ23, LKvBW10, LFBO08, LZ04, LWSP22, MFJ19, MOSS17, MRS18, MMR19]. **Based** [MO00, MCB18, MO10, MR18, MFPG18,

MWY17, MHS98, MN08, Nap23, NXDS11, NPS22, NMWI11, NK13, NSJ03, NRS18, Not12, NLY23, OS14, PKR⁺13, PL21, PQOB14, Pic03, Pla98, PMSB12, Rad16, RW21, Rei21, RBH06, RG98, RSW10, RNR13, RC23, RS13, RLM⁺00, RAT18, ST16a, SV23, Sco17, Sha12, SM18, SDNC20, SP16, SZP19, SSF16, SU15, Ste00, SL09b, SL22, TLN14, TW13b, TCDS21, TAY⁺19, Til15, TTMA22, TY15, VHSP20, VMM13, VO19, VW94, WWY09, WZET13, WDG⁺18, WDGK20, WC22, WZ22, WNC08, WYGZ10, WZSL12, XBC96, XZLX22, YJ13, YBHY15, Yan19, YC99, YZZ18, Yu01, YSZ14, ZBFN17, ZCPM20, Zha97, ZCZ04, ZZY20, ZBdAF20, dIRRG19, dSGS22, ABS96, BST08, BBSW15, CMV97, DHO12, FFS07, GKM⁺17, GJ21, HXW22, HMMS22, Jam96, MOKS12, NP96, Pir16, RR98, ZDZ16].

based [ZZ18, ZHL21, GMM15, HS06d, KOB20, GS14]. **Bases** [CW16a, Peh20a, PKA22, SLC01, TW03, ABCR93]. **Basic** [HM20a]. **Basis** [AB17, AH20, ACN19, ADS21, AD15, BKG16, BK16, BN98b, BLB00, BEEM18, Bla97, BWS20, BM00, CW16b, COS21, CDS98, CHMR10, CG21, CBN02, DDMQ18, DFS17, Ded10, DP07, DFQ14, DFW21, DFW22, DHO12, EPR10, EF15, FM12, FP07, FLF11, Gar00, GV12, GN22a, GD07, HSY12, HXW22, JK10, JK15, JP16, KR23, KKS13, KR06, KP10, KL13b, LLHF13, LSH17, LQR12, LW19a, LSW17, MR04, MS13, MMS23, Mir21, NRMQ13, OS14, OS15, Ong97, Pir16, PS10b, PSS17, QGVW17, Ros05a, TLH21, VP14, VW98, VD23, WDG⁺18, WSK99, WRS08, XD21, YH19, Yan14, Yan18, Zha20, ZH21, vdBF08].

Basis/Empirical [BEEM18]. **Batch** [HCHY23, JLXZ21, LXZ20, WRB⁺15, CC96]. **Bayes** [BJW18a, HXW22, JZX⁺21]. **Bayesian** [APSG14, APSG16, AS18, AWA⁺18, ALM22, BCP15, BTGH12, BTGMS13, CCPS20, CPS20, CG21, CBCR14, CS17, DKM14a, DDE⁺20, FLU⁺20, FL18, FWA⁺11, GHKF22, Hei13, HHP22, HCHS13, HFL⁺16, JKLZ18, LM14a, LLSX21, LW14, MFSY19, MKB22, PMSG14, Rei13, SSC⁺15, SCW⁺17, UDH23, VBA18, WBS⁺17, WBTG18, WCG23, YG15, YGCP96].

Bayesian-validated [YGCP96]. **BCs** [LP23]. **BDDC** [BPS⁺14a, DPW19, HSB20, HPS22, KLR14, KLRU17, PWZ10, Tu07, WSP22, dVPS⁺17]. **BDF** [JLZ17, WZ21b]. **Be** [GLL⁺14, GLMN15, KHU96, TW95]. **Beam** [CL18b, JILGZ20, QZT11]. **Beavers** [HLLM15]. **Bed** [JMN01]. **Beetles** [WP98]. **Behavior** [AD06, DP03, Sma01, Son12]. **Belief** [Fan22]. **Bellman** [BHT11, HW13, CCFP12, CCF14, DKK21, DKS23, HW13, KK18, NZGK21, ZHL21]. **Beltrami** [ABB09, WLZ18, WkZ15]. **BEM** [CP07, CSS12, DF20, DHM22, GH02, LS12b]. **Benchmark** [GGS19, Nie16]. **Bend** [LFWP08]. **Bending** [BMP22, DZ08, LO19, MT22]. **Benefits** [MRV06]. **Bermudan** [ZK14c]. **Bernoulli** [KGT07]. **Bernstein** [AAD11, Ain14, BWS20, CW16b, CW17]. **Bessel** [Bal00]. **Best** [ABD⁺17, AE95, GK12, SRS12]. **Better** [CAB04, D'A00, Dul98, JK08, KHU96]. **Between** [ABLM19, BBK06, Bur23, CCS⁺19, GP96, KP22, PM15, PKA22, XC20, GJ07, Gro02, KZ16, NS21, RL18]. **Beyond** [KXS18]. **Bezier** [CW16b, AAD11, Ain14, AS16, CW17, DP07]. **BFBT** [RSG17]. **BGK** [AKM14b, CL10, DY06, DSB99, EHY21, KQW04, LS23, MBS22, Xu04, ZZY20]. **BGK-Type** [KQW04]. **Bi** [GJ17, PM03, CGS⁺94, Zha97]. **Bi-CG** [Zha97]. **Bi-CGSTAB** [CGS⁺94]. **Bi-Gaussian** [PM03]. **Bi-Lanczos** [GJ17]. **BiCG** [AdSGC12]. **BICGSTAB** [Gut93, ABdSF15, YC99, SvG10a]. **Bicharacteristic** [Roe98]. **BiCOR** [CJH11].

bicubic [Bia94, BR95]. **Bidiagonalization** [BR05a, GH15a, JN10, SZ00]. **BiDirectional** [ZNZ16]. **Bidomain** [CS18a, HPS22, MPS09, PS08, PS11a, PS11b, WiOH08]. **Bifidelity** [YZL20]. **Bifurcating** [PQR20]. **Bifurcation** [BBKK97, BPB07, BDF08, BFP22, BFR23, GGKM07, CC97, MCJN94]. **Bifurcations** [EMSW12, GKD05, GM00b, Kus00, KM05, SSH06, GM96, WAS94]. **Big** [DJM16, KY14, YYWY18]. **Biharmonic** [ADGM98, BACF08, BK00a, BK10, CDH98, GL21, HJ18c, PMH⁺16, TX17, CDH97, Zha94]. **bilevel** [CV93]. **Bilinear** [AGI16, D'A00, KRR23, SDH21, ST11, Wan01, Won16]. **BILUM** [SZ99]. **Bimatrix** [AHJS01]. **Binary** [Ant22, ALM22, CDM⁺13, DDE⁺20, FNL⁺19, GZYW18, GZW18, GX20, LQZ22, Yan21]. **Biochemical** [SAE10]. **Biochips** [Kös07]. **Biological** [DLM16, KBK⁺08, Kim08]. **Biology** [DTT⁺16, LNA⁺11]. **Biomedical** [JED10, GLM22]. **Biomolecular** [LS16a]. **Biophysical** [HDB08, MTM08, SSM⁺20]. **Biorthogonal** [BB15c, WB00]. **Biostatistics** [HBSC97]. **Biot** [BBD16, BKMRB21, LMW17, PRM09, Ros06a]. **Bipartite** [ABL⁺20b, CL21, DHPAH19]. **Bipartitioning** [AKA13a]. **birthday** [PS97]. **Bisection** [AGK18, AMP00, CCS97, HO15, LJ95, MC09, Mau95, ST97]. **Bit** [HJLZ18]. **Bivariate** [HHL07, PH16]. **Black** [BMM98, CRO23, FNL⁺19, JK07, Yav96, iW11]. **Black-Oil** [BMM98]. **BLAS** [Lan98, QOSB98]. **BLAS-3** [QOSB98]. **Blast** [DMM⁺16]. **Blast-Induced** [DMM⁺16]. **Blendenpik** [AMT10]. **Blending** [OZ16, OSCE00]. **Blind** [EK14, SX11]. **Blobs** [Ros05b]. **Bloch** [HJMS07, LZ17a]. **Block** [AKA13a, AAB⁺15b, ABLM17, ABLM19, ADRS95, AGHJ23, APÇ04, BCR03, BGLY05, BGL06a, BDJ05, BHL⁺20, BS96b, BD05, BHK20, Buv21, CGL⁺12, CGL⁺13, CMS17, CST⁺13, CST16, DSW22, DFDM19, Di 97, DF99, DSS20, DGRZ15, DLRT23, DLP⁺21, EHS⁺05, GWMG03, GvR22, GG03, GG05, HS17, HKD13, IM99, JFG10, JF11, JFG13, KR17, KN21, KL05, Kla98b, Kny01, Krz01, LJ93, Lin16, LSS03, LWZ13, MSS10, MM95, MM98, MMN00, NP93b, PL03, PS11a, PMH⁺16, PEC⁺14, PSC⁺16, PV15, RHL⁺21, RKLN07, RWKW14, RWWK15, RT99, SZ99, Saa03, SR18, SBX⁺08, Soo16, SH14, Ste08, SFM20, TSK09, TMA18, TMA23, VV13, VD23, WX99, WVYX20, WG20, WL20, Xie05, Xue18, YDF97, Yan19, YFS21, Zie12, dSL05, AM95, CMV97, CS97, FS96, Jin95, RG94, Rot96, CPV95, KALO07]. **block** [CMV97]. **Block-Based** [Yan19]. **Block-Boundary** [IM99]. **Block-Circulant** [WL20]. **Block-cyclic** [LJ93]. **Block-Diagonal** [APÇ04, VV13, dSL05]. **Block-Greedy** [Lin16]. **Block-ILU** [CPV95, CMV97]. **Block-Lanczos** [BCR03]. **block-oriented** [RG94]. **Block-Parallel** [GG05]. **block-partitioned** [CS97]. **Block-Preconditioner** [PV15]. **block-size** [CMV97]. **Block-Structured** [GvR22, GG03, RKLN07, SR18, Zie12]. **Block-Triangular** [Kla98b]. **Block-Tridiagonal** [BHK20]. **Blocked** [MV16, Nov15]. **Blocking** [Gup17, MHL⁺15, RZTK⁺15, SKJ⁺13, VMV15]. **Blocks** [FFSS13]. **Blockwise** [CEJ⁺10]. **Blood** [DMM⁺16, DCSO10, SZZ21]. **Blood-Brain** [DMM⁺16]. **BLOPEX** [KALO07]. **Blow** [ADKM03, BGK15, BWZ10, BHR96, CGKM16, MW22]. **Blow-Up** [ADKM03, BGK15, BWZ10, CGKM16, BHR96, MW22]. **Bluff** [Hof05]. **Blur** [NO98]. **Blurring** [RG20]. **Bodies** [BCF01, CSW99, CP13, MP20b, TUV10]. **Body** [AE18, BBBV13, BOF16, CL18a, CFSZ08, FHH⁺18, Hof05, JvGVS13, Kra09, KL00b, LXZ20, Sha12, SU15, Ten98, XCS16, Alu96, BME93, BEM94, CSS93a]. **Bogoliubov** [TXZZ22]. **Bold** [CWY23].

Boltzmann [AB08b, BCR11, BYK05, BGGM22, BKK⁺21, BLM03, CCM05, CL10, CFY18, CW22, CLDS19, Cha18, DMML05, Del14, EHY21, Elt96, FMP06, GHHH17, HHR23, HHSY22, HYC15, HYC16, JS10, JW13, JK00, KS19, Lee10b, Lee10a, Lee12, LS23, MW03, MDA22, MBS22, PR01, QSM19, Rei18, Rei20, SR16, Str00b, ZZY20].

Boltzmann-Based [BCR11].

Boltzmann-BGK [EHY21]. **Bootstrap** [BBB⁺11, BBKL11, BK14, KR18].

Borehole [PDTVM08]. **Bose** [BD04, BS05c, BL08a, BLS09, BMTZ13, BR19, BH08, LC21, TXZZ22, TCWW20].

Botanical [LB07, LB08]. **Both** [BWZ21, Ros96]. **Bottom** [BCCX21, DQ22, GN07, KLLM22, Liu20, SSB08].

Bottom-Up [SSB08]. **Bound** [BCL99, BLNZ95, CXY10, CKXZ18, CZ22, DG16, DWQY19, GY17, Hok20, KFR21, Kea97, LLJF21, ILTZ21, HS21].

Bound-Constrained [BCL99, KFR21].

Bound-Preserving [CZ22, DWQY19, GY17].

Bound/Positivity [HS21]. **Boundaries** [Lay06, LL97, LXS⁺08, NP08, PP97, VB07, TR93]. **Boundary**

[AAAH⁺19, ABLS05, AHZ17, AA00, ABHS22, AFF⁺15, ABIN20, AP97, ABK11, AP12, AS94, AC95, ADM⁺15, BCAG22, BHG14, BCR11, BH00b, BHV05, BBSW15, Bar14, BWV15, BSSW13, BH12, Ber98a, BK06, BM01b, BV20, BBS19, BBS22, BF95, BT13, BCH12, BIYS00, BTT13, Bru18, BKS98, BOPGF06, BG04, CDBH16, CCG14a, Car07, CGAD95, CP03a, CGZ99, Che98, CH08b, Coa12, CS12, CBF17, DTY20, DB98, DD13, Der08, DKSW19, Dor10, DHE13, DL20b, DK03, DKM14b, Dur16, EO15, EO16a, EJJ08, EN16, EM96, EM99, ES17, EN08, EIJH20, FGMP13, FGMP14a, FGMP14b, FJ99, FDS13, FS02, For06, Fro12, GCS19, GL22a, Gär09, GBS⁺22, GG19a, Giu22, GY06, Giv12, GLZ22,

GKS98, GPK04, HG02, HHT03, HS05b, HM14, HT16, HO96b, HW09, HM18, IM99].

Boundary

[JL03, JL05a, JK21, JP01, KBV09, KRW20, KP06a, KLJ10, KKS21, KLY05, KC16, KP05, KP06b, KWW13, KGT07, LS99, LHL12, LOSZ07, LZ21a, LG97, LR20a, LM12, LL11, LZZ18, LP04, LTzT21, LXYZ23, LS02, MS07d, Mal07, MP20b, MT19b, MST15, MT23, MAH22, MS07e, MS03, Nas09, NAS13, Nat98, NCT99, NP17, OSU10, ORST12, OKGG⁺23, PJZ23, PL03, Pat97, PATF19, PTT20b, PS19b, PRSS11, Rei20, RH06, RK07, RS03, RSSZ08, SBS98, Sch09, Sei23, SC03, SW16, Ste00, SD11, TKW08, TT96a, TY00, Tau96, TW03, TP09, Tsy99, VC00, VV05, VGOR20, Vil09, VPP05, WL04, WMHK19, WMOZ22, WFAP15, XEG06, XL20, XLG⁺16, YCZ13, YK03, ZXY21, ZZY20, vdZvBdB10a, vdZvBdB10b, AGC96, DR93a, HG96, Rán93, Tsy97].

Boundary-Element [Nat98].

Boundary-Value

[ABLS05, BIYS00, Der08, CS12]. **Bounded** [BHNPR07, Ber00b, DOKM22, DW15b, GM17, Gär09, GJM94, HS06d, KR21, NS06, Nor07]. **Bounded-Obstacle** [NS06].

Bounding

[KOSB16, KTSB19, SB05, Wil09]. **Bounds** [BGS17, Bre00, Cab94, CDKL22, CHMR10, DM16, GH15a, GCS19, GvdV17, GSS00, KK13, LQX14, LK21, MW22, Mön08, MRL⁺17, PS02, PDH09, SBP04, SDH21, TBO10, Van00, Yan18]. **Boussinesq**

[LRD⁺04, HHSW11, MCJN94, Yan14]. **Box** [CRO23, JK07, KSD10, LM21, MMS05,

BH12]. **Box-Constrained** [KSD10].

BoxLib [ZAD⁺16]. **BPCONT** [Der08].

Brain [DMM⁺16, HDB08]. **Branch**

[Der08, Kea97]. **Branched** [Li03, RC06].

Breakage [DKDH20]. **Breaking** [OT09].

Breakup [BLGL11]. **Breast** [BNFS13].

Bregman [BCC⁺15]. **Bridge** [VPP05].

Bridges [SGS22]. **Bridging** [ABLM19,

BTLZN22, PKR⁺¹³, PLVG⁺²², RDP08].
Brinkman [VV13, XZ10, ZS23]. **Brittle**
 [AFMP15]. **Broadband** [ERSZ17].
Brownian [CL03, DMR17, DYZC22, HT16].
Broyden [Anj93, Jar19, YDF97, vNLB04].
BSDEs [GLSTV16, RO15b]. **Bubble**
 [TKW08]. **Bubbles** [HY10, dVL10].
Buckling [HLP08, LCH99]. **Budget** [SK23].
Burgers
 [BHN07, DMMO05, Elt96, GK00, HDF⁺¹⁹].
Burnett [HC20a]. **Bursting** [Sma01].
Butterfly [BCY21, KM12, LY17, LXG⁺²¹,
 LGCL21, PHY20, PDMY14, Yin09].
Bypassing [Pir16].

C [Dar21, DARG13, Wal18]. **C.** [PS97].
Cable [KO05]. **Cache**
 [AKA13b, GMPZ06, HR05, YB09].
Cache-Aware [GMPZ06].
Cache-Oblivious [YB09]. **CAD** [RKLM18].
Caffarelli [GN22b]. **Cahn** [AL119, BS15b,
 GHMY18, HX21, HYW20, KW07, ILTZ21,
 LQZ22, XSWG23, XZ23, ZD09]. **Calcium**
 [Gob08]. **Calculating**
 [MNBK10, MS04, Nak98]. **Calculation**
 [BD99a, Bre17, BHP98, CRV14, GLR07,
 HM98, HBJ04, HA17, KKS13, MGG19,
 Mön08, TT96b, TB99b, WMI09, WMUZ13,
 YGB⁺⁰⁵, ZD19]. **Calculations**
 [Ber95a, COZ96, CDKL22, CDGS05,
 DLZZ17, DLY14, GHKL22, HW94,
 LWYxY18, LYL⁺¹¹, LJL98, Ste11, TLLL23,
 TB02, YS16, Zas95, ZZWZ14]. **Calculus**
 [GZT⁺¹⁹]. **Calibration**
 [CAB04, DKM14a, HKC⁺⁰⁴, SSM⁺²⁰].
Camassa [LX16a, ZLZ22]. **Can** [CCF14].
Cancel [PLVG⁺²²]. **CANDECOMC**
 [SMYS21]. **CANDECOMC/PARAFAC**
 [SMYS21]. **Candecomp** [KU18].
Candecomp/Parafac [KU18]. **Canonical**
 [ABTZ14, De 12a, DM13b, RDB16, ZMS21].
Canyon [MDA22]. **Capability**
 [CST16, LC23]. **Capacitance**
 [LV98, PV94, PV95]. **Capillary**

[KSMM18, SGS22, SCS04]. **Capture**
 [LW14]. **Capturing**
 [BJ01, TWZ21, WL04, Wan04]. **Carbon**
 [JP14, LW14]. **Card** [Gre03]. **Cardiac**
 [BFSN08, CWG10, HPS22, TPQD22].
Cardiovascular [PVV11]. **Cards** [LSN17].
Carlo [KKS08, ABLS05, ACdS⁺¹¹, AE22,
 BHvST14, BDK⁺²⁰, BK04, BCSS14,
 BCCSS21, CL18a, CWY23, CKXZ18,
 CKBT16, CML^{+18b}, CGF21, DPS18,
 DGR⁺¹⁷, EHL06, EBSS⁺¹¹, FVV21,
 GSWZ20, GLSTV16, GL22c, GP18,
 GKRB16, HW14b, HHL00, HJS18, IT09a,
 IK10, IT14, JKLZ18, KBK⁺⁰⁸, LXZ20,
 LMRS21, LS23, LZ04, LW20b, LW19b,
 MS04, MSS12, MBS22, NT18, Ökt05, PR01,
 PWG16, PMR16, RNV17, RNV19, TPW09,
 VS23, Wan12, WZGO21, WWH17, WKKP13,
 WG19, WP20, YHFG22, YWL21, ZWH21].
Carlo-Based [CKXZ18]. **Carreau** [Lee14].
Carrier [PG22]. **Cartesian**
 [ABCM97, BGOD08, Bea20, CH09a, DFQ14,
 HG02, ILK05, KW11, WWM03, WM11].
Cascade [Yiu95]. **Case** [AG17b, AG17a,
 ATWK19a, ATWK20, BTGMS13, CDF18a,
 CHL16a, DARG13, DF99, FMOS17,
 GLL⁺¹⁴, GOS12a, GDB⁺²², JV96, LB15,
 QZZ19, SWX16, Vil09, YTD15, YYWY18].
Cases [YZ07, YZ08]. **Casing** [PDTVM08].
Cauchy
 [BMSV97, DMM19, KO99, LCD14, TY08].
Cauchy-Like [KO99]. **Causal** [CCV14].
caused [AGC96]. **Cavitation** [SRW⁺¹⁸].
Cavity [BS05b, LAG14, LRD⁺⁰⁴, TVV11].
CCCG [CB98]. **CDG** [PP08a]. **Celatus**
 [Gia18]. **Cell**
 [AB21, ADK⁺⁹⁸, ACCP13, BMSV97,
 BCDE21, CBF17, EMNS20, FEM08,
 GTK⁺¹⁷, Gob08, HHLZ21, KCZ15, Kwa99,
 LTzT21, MABO07, MCT⁺⁰⁵, MS98, MCV17,
 NMWI11, PKS21, QS05a, TKCC13, VR16,
 ZLY⁺¹⁸, ZP20, ZWG21, Gre93, WMC11].
Cell-Based [CBF17]. **Cell-Centered**
 [ADK⁺⁹⁸, FEM08, Kwa99, MABO07, ZP20].

Cells [Ste11, Ush01]. **Cellular** [GXZ21, SAY03]. **Centered** [ANP00, ADK⁺98, FEM08, Kwa99, MABO07, VHGR10, ZP20]. **Central** [BT06, BPR99, BL03c, BL05, CPPR12, DBSR17, JT98, Kup98, Kup01, KL00a, KNP01, KPP07, KP09b, KPW17, Ld12, LPR00, LPR02, LNSZ06, LLLX16, LN03, LT00, MV09, PPR05, Pup03, TCZC19, TKK16, WDGK20]. **Central-Difference** [Kup01]. **Central-Upwind** [KNP01, KPP07, KP09b, KPW17]. **Centrifuge** [SCS04]. **Centroidal** [BGL06b, DGJ03, DW05b, GCN21, JGZ06]. **Certain** [BGL06a, DMM20, EJJ08, FFS07, IM98, VK15]. **Certificate** [Yan18]. **Certification** [Zha20]. **Certified** [BKGV16, CHMR10, EPR10, GV12, HKO⁺23, HSZ12, KP10, QGVW17, Yan14]. **CFD** [Ema10, HML⁺04]. **CFL** [CKQ14, WL01]. **CFL-Free** [WL01]. **CG** [BU15, FM99, Zha97]. **CG-Based** [FM99]. **CGLS** [CPP⁺17, HCHS13]. **CGLS-Based** [CPP⁺17]. **CGMY** [AO07, GLW18]. **CGSTAB** [CGS⁺94]. **Chain** [BPB07, CKBT16, EHL06, FVV21, Kus97, VS23, WZGO21]. **Chains** [BBB⁺11, BKS16b, CE17, CPR11, Day98, DS00, DMM⁺08, DMM⁺10b, DMSW10, DMM⁺10a, GaP08, KTSB19, SBM07, TY11]. **Challenge** [EMM⁺99]. **Challenges** [DNP⁺04]. **Challenging** [LO03]. **Change** [PP12a]. **Changed** [ZK14c]. **Changing** [BCF01]. **Changing-Chart** [BCF01]. **Channel** [Hum96, KWW13, VS03, XL20]. **Channels** [EERT23]. **Chaos** [BDW11, CJGX15, DGS08, DNP⁺04, FUNB18, FEL18, FÖ21, GI17, JNZ17, LK04, PSDF12, ST22a, SG04, SD10, SM15, WK06, WB08b, XK02, ZCK12, ZRTK12]. **Chaotic** [CD06, SW22a, VFGS23, XYZ05]. **Characteristic** [AH06, AW11, BMV05, CD20, DBC13, EAS08, EAS11, FL19, GC16a, MB02, MYN20, OGO13, SSH06, YCN21, Gos12b]. **Characteristic-Based** [CD20, GC16a]. **Characteristics** [BBT19, CLK18, EAOS21, WMSG09, YVB98]. **Characterization** [LM14b, LNA⁺11]. **Characterizations** [SVX15]. **Charge** [Ama98, LNZ19a, LNZ19b, OAA20, XC20]. **Charge-Conservative** [LNZ19a, LNZ19b]. **Charged** [AE18]. **Chart** [BCF01]. **Cheap** [ÖB05, TP99]. **Chebfun** [HT17, RT11, TT13, WJMT15]. **Chebyshev** [AC08, AD18a, AD19, AD20, BS98, BK10, DKS21a, DS95b, DS97, FP14, GMP19, HT14b, HMAS17, HP14, HHSY22, Jac03, LV94, MR02, PCDB96, She95, TW09, TT06, VS04, Zbi11]. **Checkerboard** [Lee13a]. **Checkpointing** [SW09, SW10a, WMI09]. **Chemical** [CVE13, DHJW08, GK13, IP06, Jah10, LNP⁺07, PS13, YS16, Ver94]. **Chemistry** [DF21, JSPC97, LCH09, NK15, SZ06]. **Chemosensitive** [FS05]. **Chemotaxis** [DP19, FY14, Gos12b, NMWI11]. **Chirplet** [GG09]. **Choice** [CMK11, CJK10, DLZ10, GG18, BCLC97, DG95, LL94]. **Cholesky** [BDHS10, BPT93, CLB21, FGM95, FKN⁺20, HRS10, HSTH18, LM99, MH95, Meu01, Nap23, NP93b, NP93a, NRSD18, PS93, RG94, Rot96, RS99, SKO21, Sch93, ST14a, ST14b, Sco17, YTD15]. **Cholesky-Based** [Sco17]. **Choosing** [EW96, HR96, JG02, Lee09, SRS12]. **Chopped** [CCSS08]. **Chord** [KMT98]. **Christoffel** [And08, BT03b, Ban08b, DK11]. **Chromodynamics** [SO10]. **Chronos** [IFSJ21]. **CIMGS** [WGB97]. **Cimmino** [ADRS95, DGRZ15, DLRT23, DLP⁺21, TMA18, TMA23]. **Circle** [SWU16]. **Circle-Valued** [SWU16]. **Circuit** [BJ08, CCCZ10, NPS22, MT97a]. **Circuit/Field** [CCCZ10]. **Circuits** [BBGS13, MS07c]. **Circulant** [Ber00a, DN97, NP10, RKW20, SCTP04, WL20, Huc93, CC96].

Circulant-plus-Diagonal [NP10].
Circular
 [AA00, Ama98, GS21, NH12, Smi97].
Circulation [TGS08]. **Circulatory**
 [KLJ10]. **Circumventing** [RLG98]. **Claims**
 [LCD18]. **CLAIRE** [MGDB19]. **Class**
 [BM08, BCJ⁺21, BCK21, BHM20, BB03,
 BR09, BBM⁺15, BV16, Buv20, CCFP12,
 CDG03, Che98, DFN12, GS14, GVMM14,
 HSS08, HLL⁺22, KGA23, KA95, Kla98c,
 KT08, LSY21, LO03, LCR20, Meu01, MG12,
 MW16, Par17, PP12b, Ser06, TW05, Vir07,
 WZ03, Wat04, Zam16, ZTBK18, Car93].
Classes [VBA18, VK15]. **Classical**
 [BH11, BCK⁺18, BWZ21, DP20, IFSJ21,
 JP14, TAY⁺19]. **Classical-Quantum**
 [JP14]. **Classification** [dSGS22]. **CLE**
 [CE17]. **Clenshaw** [EJJ08]. **Climate**
 [MW08b]. **Clipped** [ECH⁺23]. **Clique**
 [RGG15]. **Cloaking** [VLM22]. **Close**
 [Bar14, BWV15, CKK20, EHY21, ZV22].
Closed [AHN⁺20, AL99b, Bea20, CBDW15,
 CGX21, DGK23, LRD⁺04, LFWP08, PG22,
 QZZ14, SL20, VZA⁺23, WYT18, YVB98].
Closed-Loop [AHN⁺20]. **Closely**
 [GJLX16]. **Closest** [CM15, MR09, MHR20].
Closure [BPB07]. **Closures**
 [AHT12, HM10b, MP20a]. **Cloth** [KKT19].
Clothoid [FB19]. **Cloud** [AKBM21,
 DTT⁺16, SRW⁺18, TGS08, WJS23].
Clouds [DS16, FO19, JP16, LZ13a, WLZ18].
Cluster [AHDK14]. **Clustering**
 [Fra98, Hor10, McL12, MDC08, SNB16,
 ZWG21, dMHJM00]. **Clusters** [RNR16].
Clustersolutions [CK98]. **CM** [BP97b].
CM-5 [BP97b]. **CM-5/CM-5E** [BP97b].
CM-5E [BP97b]. **Coagulation**
 [EW00, FL04, LGW19, MNBK10, PW12].
Coagulation-Fragmentation [LGW19].
Coalescence [ABM⁺13, FCM12]. **Coarse**
 [AKPRB08, Bot23, BH17, CPW15, CEJ⁺10,
 CGSR20, CWX15, AGJT21, DW17, DPW19,
 DGL⁺12, EHL06, FS14, Fer98, GBM22,
 HKR16, HKKR19, HHK19, HL20, HKLW21,
 HKK⁺22, KKR16, KC16, KRS21, MS07a,
 MNP07, NXDS11, Pol16, ROM18, DFK23,
 SAB14, WSA16, WY09, Wu18, Yav98, ZT17].
Coarse-Grained [WSA16].
Coarse-Graining [AKPRB08].
Coarse-Grid
 [Fer98, MS07a, ROM18, DFK23, Yav98].
Coarse-Scale [EHL06]. **Coarse-Space**
 [GBM22]. **Coarsening**
 [BGL⁺21, BF10, FRS19, HDF⁺19, KR18,
 KWG⁺20, Lee10b, MS07b, MMV98,
 OKLS15, Wab05, ZWWZ21]. **Code** [CM98a,
 CM98b, CWA14, HML⁺04, HHR23, Min02,
 ØLW08, RWX07, SSW18, WMSG09, EL93].
Codes [Ber00a, HBSC97, vHBTC12, JS93].
Codim [KM05]. **Coding** [ZGG17].
Coefficient
 [BK08, CGX21, DF99, FGMP13, FGMP14a,
 FGMP14b, GM14a, JL05b, JR98, KGM⁺11,
 KLZ22, KG14, LXdH20, LK98].
Coefficients
 [ALLK15, ABST13, Ant22, BF16, BvW09,
 CT03, CD02, CRV13, CGF21, DF03, EIL01,
 FDS13, GX16a, GP16, GLL21, GH99, GD03,
 HA01, HCRT13, Jia14, KKV13, KP09a,
 KGM⁺08, KP06b, KRGO19, LI01, MRFV18,
 MEHL16, Mor23, MZ19, PRSS11, RY03,
 Sch98, SWX16, WR13, ZTM⁺16]. **Coercive**
 [CP17, Yan18]. **Coherent** [RAB⁺14, TW96].
Cohomology [PSKG13]. **CoKriging**
 [YZL20]. **Cole** [LHL11]. **Collapsed** [JBL18].
Collection [AILP07, Wri93]. **Collision**
 [AHK⁺17, CW22, CHL16b, GHHH17,
 LWW20, WY19]. **Collisional** [AE18].
Collocated [GvR22]. **Collocation**
 [AS94, AC95, BSX22, BS23a, BF95, BFK03,
 BFK05, BF06, BK10, Bjø95, BvW09, CDC19,
 DS97, Du16, ES18a, ELtHR00, EM99, FF15,
 GM14a, GNZC17, KNN12, KV05, KZK17,
 KHRvBW13, Lay03, MT19b, NX12, NJ14,
 NGX14, PCFN16, PS19b, Sun95, TT06,
 TV98b, WSZ14, WY09, WI12a, WI12b,
 XZB11, XH05, YG15, YSX17, ZK14b,
 ZZK15, ZMK17, ZTRK14, ZNX14, Bia94,

BR95, DS95b, HHRV93, PM95, PCDB96].
Color [FNB06]. **Colored** [GZ19]. **Coloring** [BtVÇG⁺10, GTMP07, JP93]. **Column** [DG17b, FSV22, GCD18, MOHvdG17, QOSB98]. **Columns** [HNR17, TMA23].
Combination [HHLS15, Hun95, OB21, SSN19, WZSL12].
Combinations [OK13]. **Combinatorial** [IMS96, LGC⁺23, WH09]. **Combined** [AW20, BGN07, CEP20, DY06, MF06, dDBV14]. **Combined-Mode** [AW20].
Combining [AEFM17, AdSK19, BJW18a, CDGS05, FT03, HVK18, HKLW21, HKC⁺04].
Combustion [HS16]. **Common** [Gro02].
Communicability [AB16b].
Communication [BDHS10, BSH16, BFG⁺16, BT97, BBG⁺19, CKD13, Cas97, DDF⁺21b, DGHL12, Den97b, DFDM19, GAMV13, GM15a, KV13, SA97, SDH21, UA04].
Communication-Cost [UA04].
Communication-Efficient [BBG⁺19].
Communication-optimal [BDHS10, DGHL12]. **Community** [KPPS14, ZLWZ18]. **Commutators** [EHS⁺05]. **Compact** [BCI22, BDK12, BMPS22, CL22, DGLW16, GB12, GCB15, GW04b, GM04, Huc08, KS94, LSW17, LPR00, LP23, LMT18, PT08, QNNZ19, SC98, TAHR15, WDG⁺18, XAW17, ZzSpH14, Pel93, PP08a].
Compact-WENO [DGLW16, WDG⁺18].
Compactly [Pla15]. **Companion** [AVW13].
Comparative [ACD95, BBKK97, CFKM18, GRT05, LL00, LZ04, Ros05b, GMSB16].
Comparison [AC05, BBKS20, CW15, DS00, DDGS16, GK11a, INS05, KTB14, KW18, LMM17, LW03, NV05, QS05a, RU01, SMYS21, TAY⁺19, WE06, ZW03, Zin00, ST94].
Comparisons [Elt96, GZ19, KP11].
Compatibility [ABHS22, AGK18].
Compatible [BHST08, BF10, BCK⁺18, BDPR22, GP99, GDC⁺23, MNP07, XZ23].
Compensation [MOKS12]. **Competitive** [Boz09]. **Compiler** [HMLH18].
Complement [Bla03, CGL01, DKXS18, HVK18, HSF07, Kra12, KLL⁺16, LS05a, MG11, Mal07, MRT00, MMA98, MFPG18, OV07, PL21, PSLG14, SS99, TMA23, DS95a, FCR93].
Complementarity [WC17, ZYSL15, ZSPL21]. **Complements** [BS05e]. **Complete** [Sei23]. **Completely** [ZLWZ18]. **Completion** [AKM⁺14a, BTLZN22, CCY23, CA16, GKK15, KOB20, Ste16, TW13a, WLL⁺15].
Complex [AM04, AL99a, AH04, BBKK97, BOR97, BS96b, BKS13, BGL06b, CDK21, CCG14a, CMM95, DH01, DJT08, DGK23, Du11, GM14b, GS21, Har11, HML⁺04, HGZ17, IP06, Kir14, KC16, LS09, MF06, MO08, Nat98, OKGG⁺23, PKD23, SY14, SMR16, SXX17, SAE10, TW03, Van20, Zha22a, ABCM97, Gut93, LV94, NT20].
Complex-Geometry [SXX17].
Complex-Symmetric [Nat98].
Complex-Valued [DH01, MO08].
Complexity [ABLM17, BH22, DGLL21, GM14a, HVW95, IL16, KKT13, Kir14, LZK17, ZTBK18].
Compliance [PVV11]. **Complicated** [AGH13, Bre96, Yav93]. **Component** [GG05, GH14, HMST11, SP16, WZET13, ZLZ22]. **Component-Averaged** [GG05].
Component-Based [SP16, WZET13].
Components [BzCS11, FB95, HTH⁺16, OW02].
Componentwise [FKQS17, Van00].
Composite [AGH13, CS96, CKXZ18, EIL⁺09, GM14a, HM10a, KASL21, LMPQ03, Mu99, Par17, PP12a, PRSS11, SP03, SJR09, XBC96, ZCW10, Pet93].
Composite-Grid [LMPQ03]. **Composites** [TG04]. **Composition** [BCM05, GGK⁺04a, KM18, McL95, Vil14].
Compositional [WZET13]. **Compress**

[SO18]. **Compressed** [Ash95, DFG15, KMSM14, SSVW17, YLHX15].

Compressibility [KWD22]. **Compressible** [ACL09, BDk⁺20, CZ22, CD01, DSB99, DDGS16, DL17, DL20b, Egg18, Ein19, EHY21, GY17, Hes98, HC95, Ld12, Le 01, LD05, LXS⁺08, MABO07, PCFN16, PM15, RSD⁺20, RHSK11, SA99, Sha21a, WLK06, YC14, HG96, Hes97]. **Compressing** [Mar16, XC20]. **Compression** [AKW17, ATWK19a, ATWK19b, ATWK20, ACG20, BwB19, Bör09, CGMR05, DFH⁺19, EGLS21, FDH⁺20, GLL01, LN03, LGCL21, SYZO15, Tad20, WG12]. **Compressive** [AK15, HJLZ18, TCDS21, YZ11]. **Comput** [BEM94]. **Computable** [ABR17, HHS⁺16]. **Computation** [AP19, ADLR15, AP01, AHHR16, AVW13, BZ10, Bal00, BS96a, BS05e, BAFF00, BM18, BL04b, BSV19, BKH⁺22, BMF12, Bog14, BWS20, BtVÇG⁺10, BBK06, BDMFSL04, CDY07a, CFSZ08, CPT05, CBCR14, CV98, CJ99, DS20, DP17, DM16, DK11, DLP05, DGP18, Drm97, DGK98, EL01, ELtHR00, Fli13, FB19, FDFW07, FSV22, GH13, GGS19, GSS12, GS12, GKM⁺17, GST12, GST19, GLL21, GI99, Gub96, GD03, HT13a, HHLS15, HAG17, Hof05, HKB21, HS18, HKM97, HK02, IBM01, Inv02, ISS06, JLY08, JM18, KB96, Lab05, LCG21, LLHF13, LS94, LX12, LMR97, LH00, LCH99, Lui97, MH16, ML11, Mit23, NP14, PSKG13, RO15b, Sch10, Sei95, SL09a, SWT00, VBA18, WWH17, WT01, XLS18, XD21, ZLBC03, ZZ18, ZLY⁺18, vVKA11, AD96, BZ93, Tsy97, WM93]. **Computational** [APS12, AHT12, BB17, BBP13, BH20, BMMR20, BS04, BCG⁺10, BWZ10, BTGMS13, BTLZN22, CHH19, CC98, ÇKAA22, CHL06, DMM⁺16, DTT⁺16, EHW00, EMT09, GGLT00, GM14b, GK05, HP20, HC21, JHJ12, JKR08, KN21, Kou09, Kra08, LCR⁺16, MW11, NK15, NL20, PMSG14, PDE⁺17, Rav05, Ros97, SD10, Ste00, TP21, TGS08, TCCK18, Tsy99, TAHR15, Wan07b, Wan07a, WMSG09, ZWH21, Zim14, AP93]. **Computationally** [DFN12]. **Computations** [BK07, BP97b, CS94, CDK21, CX08, CSW10, Dul98, Fai03, FLF11, GTK⁺17, GH07, GCB04, HL95, HJ19, JR96, LKvBW10, MCL19, MRL⁺17, Nat98, Nie16, OSCE00, Pek12, SW03, TW96, WRS17, ZCW10, OA93]. **Compute** [Che16, KR17, TW95]. **Computed** [HAN19]. **Computer** [CGDD11, GV15, HKC⁺04, HTH⁺16, vdHCDD15, MH95, YGCP96]. **Computers** [BDD⁺97, HKR02, HW94, Goe97, NP93b]. **Computing** [AEFM17, AS16, AMH11, AMHR13, AMHR15, AM18, ABB09, ADL⁺12, ACO98, AKBM21, ADF⁺19, AT15, AMB⁺94, ABL⁺20b, BBP21, BD93, BCT07, BFKY11, BD04, BL08a, BLS09, BMTZ13, BR19, BM12, BMF12, BT20b, BS96b, BGSV15, BGR16, Bru18, CCQ16, CCRT21, CAS11, CHJ16, CC18, DR93a, DLY17, DH16, DDF00, DOKM22, DCB22, DL22, FKMR19, FGL09, FMYT16, FGM95, FKN⁺20, GH15b, GWMG03, GTMP07, GMvdV19, GST09, GvR22, GGGL10, GSR19, GE96, GM96, GM00b, Gug16, HNS08, HV01, HK17, HHL15, IFSJ21, JN10, JSCB20, JED10, JW05, JP11, KV96, KMV99, KMV05, KPÇA12, Kei09, KRR23, KPU21, LS20, LCN14, LR10, LSU11, LL11, LWZ13, LL20, LC21, LYZ23, LGC⁺23, LT12, LR98, MV00, Man99, MV16, MB99, MW01, MG12, MAH22, MvdM21, NH18, OKdSG17, PFS21]. **Computing** [PP97, Pet93, PSLG14, PK19, RL18, RM08a, Ros15, RX18, SIDR15, SBP04, SRT23, SBM07, SS03, SXK17, SO10, Str93, Swa02, TS11, TXZZ22, TV98a, TWL21, TWW16, VMV15, VK15, Wan97, Wat98, WTW17, WTS94, WkZ15, WS15, XS16, XCLQ20, YZ07, YZ08, Zha96, ten95, DS95b, RST93, Tre93]. **Concave** [LNS96, NNT13]. **Concentrating** [LL02].

Concentrations [JW05]. **Concept** [SNB16]. **Concepts** [GW00, vD03].
Concrete [CST16]. **Concurrent** [AKBM21, PWM22]. **Condensate** [BH08].
Condensates [BD04, BS05c, BL08a, BLS09, BMTZ13, BR19, LC21, TXZZ22, TCWW20].
Condensation [DKL⁺19, KV20b, SP16, VP14].
Condensed [KV20a, DHM⁺23]. **Condition** [AMHR13, AGK18, BH00b, BCI22, BCH12, BHP98, CCG14a, FH21, GH15a, HLLM15, HR14, KR17, KL15, KL94, KLR98, KKS21, LX08, RL10, SV08b, SV11, WL04, Wan04, Win06]. **Conditional** [AE22, MW22, TMM20, YWL21].
Conditioned [BS07, BCAG22, CH17, CCS98, Du16, FKN⁺20, MFJ19, PS01, WSZ14, Di 95].
Conditioning [BBC07, KR00, SBC93].
Conditions [AHZ17, ABHS22, ABIN20, ABK11, BHV05, BMDO16, BV20, BBS19, BBS22, BK18, BTT13, BG04, CH08b, Coa12, DTY20, DGK23, Dor10, EO15, EO16a, FJ99, FDS13, Fro12, HG02, HHT03, Her08, HMMS22, JK21, LRD⁺04, LZZ18, LP03, LS02, MRS04, Mal07, NCT99, NV08, PJZ23, Pat97, QX08, Rei20, RK07, RMD08, RSSZ08, Sch09, SC03, SD11, TVA02, Tsy99, UW94, Ush01, Vil09, WMHK19, WX17, XL20, XW05, HG96, Tsy97]. **Conducting** [AKLP10]. **Conduction** [Don06, SCM10, SK05]. **Conductive** [BK98, BK99]. **Conductive-Radiative** [BK98, BK99]. **Conductivities** [MS03].
Conductivity [Du11, EIL⁺09, Tim19].
Cone [GY05, KO05, ST03, ZYSL15].
Conference [Ben15, MY21, Ben13, Ben17, BD23, Tum10, TBC⁺11, Vas05, Yav19, vdV01, vdVDE⁺02, vdVDE⁺03].
Configuration [CL03, LW20b].
Configurations [ACK19]. **Conformal** [Ama98, DP98, DV98, HQR19, HT09, ISW18, Nas09, NAS13, Por01, SO15, WK18, CDH97].
Conformation [BTY08]. **Conformational** [MTM08]. **Conforming** [DMMO05, DTY18, Gär09, GSV18, HZZ20, HGPM14, JGZ06, LMM17, RKL09, ZWZ19, JK11].
Congruence [PLT⁺21]. **Conical** [GST09].
Conjugate [ACY⁺20, ABF96, BMT96, BCT00, BBFJ16, BCL99, CRS⁺18, CDH98, CC20, DLZZ17, DFG15, DEC05, DGLW16, Fie98, GY99, GH99, GLC21, HQR19, JvGVS13, Kny01, Mou20, Not00a, PF12, SYEG00, Spi16, SO97, VP14, NP96].
Connected [DP98, DK11, HQR19, NAS13, NN18, RD21].
Connecting [DDF00]. **Connection** [GSS12, BP97b]. **Connections** [KR12a].
Connectivity [BMV11]. **Conquer** [HLD12, KMR19, LT09, LS13b, NH13, OX22, TD99, VXCB16, VTD12, LL93].
Conservation [AB02, AD06, AGH00, BLMR02, BF16, BBSW94, BGGM22, BPR99, BT20a, BBC⁺21b, Bur23, BG13, BFSN08, CHR02, CGV18, CW13, CW14, CW16c, CLL13, yCWHJ12, CK94, Dk00, DMMO05, DGLW16, DS16, DBSR17, DB07, FMR06, FK19, FK21, GR05a, GB12, GMS02, HH02, HBL05, HLM⁺09, HC20b, ISS19, JT98, JSZ13, KL00a, KNP01, KPP07, KPW17, LPR00, LPR02, LLLX16, LD16, LST20, LN03, Mar94, NMAB11, PPR05, PPRS19, QS18, QS08b, SL11, ST17a, Sem10, SMR01, SJD14, TW12, Tor12, TLE12, TW95, VS03, WDG⁺18, YHQ12, ZD19, ZQ17, dLRT09, BH97, Pem93].
Conservative [AHH12, AHR12, AS05, BOB⁺19, BKMRB21, BBT19, CL22, CZ22, CH94, yCWHJ12, DS16, Egg18, EL19, FL19, GBCT10, GJ07, KP22, KWD22, LLW16, LW16, LNZ19a, LNZ19b, MRI21, MRKS21, NH14, PPRS19, PM15, PKA22, Rei18, RG09, STCK21, Sha21a, SL09b, SL22, TT20, Yan22, YHL19, YYY11, ZHQ20, ZS23, ZCQQ21].
Conserved [AF22]. **Conserving** [AH06, CL97, CD20, DG09, HLMM06, LW12a, MKRK13, vSRV11].
Considerations [CC98, FK97, Moo00].

Considered [Gri94]. **Consistency** [Lu95, NP08]. **Consistent** [BPR04, BHP98, BJW18a, DTY20, Dor98, DHZ⁺21, GZW20, HSWW08, LY13, MKWG15, PHA18, Sha12, TKCC13, WMUZ13]. **Consistently** [BBGS04]. **Consolidation** [BRBT12, LMW17]. **Constant** [ABST13, BGK15, Bru18, CCS⁺19, CF23, CGX21, DZSN09, FGMP13, FGMP14a, FGMP14b, HCRT13, Ren15, SL09b, VMV15, WZ21a, vdDA12]. **Constant-Coefficient** [FGMP13, FGMP14a, FGMP14b]. **Constant-Free** [CF23]. **Constituted** [FGO20, L XK08]. **Constrained** [AV14, AEMM16, AOR18, BV03, BH20, BLR99, BDKR21, BPS13b, BG05a, BG05b, BU15, BF22a, BCL99, BDS20, BLNZ95, CCJ21, CKXZ18, CLTX15, CK94, Doh03, DS17, DGJ03, EN16, EFOS20a, EFOS20b, FCC10, GU17, GHN01, GV07b, GKL08, Haz08b, HRT13, HD15, Jay98, KV20a, KB08, KFR21, KP12a, KS94, KSD10, KP12b, LCH09, LST07, MH17, MGG19, MB17, MGDB19, NWW10, PWF18, PR09, PBC05, PC07, QGVW17, RP01, RDW10, Ros06b, RJLW20, SWW08, Vas10, VLM22, YMW07, YHC16, YP98, AE95, AP93, Dax93, GLZ22, BSS21, GW20, GHKS14, KHRvBW14, KRT21, SB15, PST15]. **Constrained-Transport** [HRT13]. **Constraint** [CR04, CLS16, CW06, Chr09, DW05a, KLT16, Le 01, PLVG⁺22, RP01, SSW21, dSL05, dSO21]. **Constraint-Preconditioned** [dSO21]. **Constraints** [AB08a, BKG16, BMP14, BL07b, BIYS00, BL08b, BHM19, BMPS22, CGR14, CJY16, CS20, DTY20, GLxY19, GRMS09, HS06b, HKLW19, HJL⁺19, HGZ17, KM11, KPU21, KNV⁺16, LX14, wLxY00, LPY⁺21, MMVW13, MPRS23, Obe13, PRM97, PMSB12, RCC18, TP09, TCCK18, WW22, WBFA09, ZT17, dVPS⁺17, DR93a]. **Construct** [BJW18a, GJ21]. **Constructed** [BS05f, PS01]. **Constructing** [AJ22a, BT19, CKN06, JK08, NX13, SD10, Wan07b]. **Construction** [Abg09, AMN15, AA00, ACG20, ACK19, BM10a, BM10b, Bör09, BCK22, BTK19, BT16, DD00, FV01, GL22c, GCG⁺19, GS02a, Joe93, Joe95, LM14a, MGH21, MV06, NXDS11, PGW17, RV22, SY18, SV03, SH01, SLC01, SSB08, XC20]. **Construction-Free** [GL22c]. **Constructions** [NJ14]. **Contact** [CSW99, CEP20, CHH01, GSV20b, HSWW08, HSW08, KO05, Kra09, PWGW12, WL97, WK03, YY18, YSK19]. **contacts** [LP06]. **Context** [CRS⁺18, GKT09, JJK23, ten95]. **Contingent** [LCD18]. **Continuation** [BDF08, Bru18, BP22, CCJ07, CKK03, CDZ22, Der08, GKD05, HS16, Kue12, LS13a, LZ99a, LMR97, LC05b, Lui97, Lyo11, RAB⁺14, SSH06, TVV20, WYGZ10, vNLB04, LL93]. **Continuing** [DDF00]. **Continuity** [CM09, CDPC13]. **Continuous** [ACK19, BB13, BS95, BT04, BBKS20, BCJ⁺21, BB08b, BV00, Bur23, BG13, CHL20, CGSR20, CE17, EZ11, FEM08, GS98a, GPSY17, HM10a, HSU21, HH13, HRP20, Kim08, KW18, KS14, KK16, KTSB19, MMT15, MHW22, MS18b, Paz20, SL09b, SW10b, TSK09, Tou22, XC20, YWL17, ZKN21, BS94]. **Continuous-Discontinuous** [BB13]. **Continuous-Stage** [MHW22]. **Continuous-Time** [BBKS20, BCJ⁺21, KK16, KTSB19]. **Continuous-Wave** [BS95]. **Continuously** [GX16a]. **Continuum** [BDPR22, OZ16, Sha12, WLLZ18, XJBS12]. **Contour** [GM23, HW15, Sch94, Zha22a, iW11]. **Contraction** [HBSC97, HMvdG18, Mat18]. **Contractions** [SDH21]. **Contrast** [EIL⁺09, HTH⁺16]. **Control** [AS16, ATWK19b, AD21, AH20, AFS19, AFOQ19, AV21, AAO23, Aru12, BKG16,

BBH18, BGGM22, Ber98a, BH11, Ber95b, BG05b, BK00b, BIK02, BH08, BvW09, BFP22, CP04, CGR14, CF00, CP03a, CK03, CP07, CPT05, CK98, CBDW15, CHH01, DHS22, Ded10, DZSN09, DZ12, DMBB10, DP19, EN16, ELM21, EM96, EHW00, EMT09, FL02, FR23, FÖ21, GPS95, GSS22, GM11, GS97, HS05a, HSB12, HN06, HHW00, HR99b, IR98, KK18, KB08, KLS⁺15, KL12, KW10a, Kul12, KW15, Kus97, LPSB17, LV07, LSTY21, LU17, LP22, LLX15, LM14c, MSS10, MZDK22, MRW15, MP08, NRMQ13, OPRB06, OS15, OSS22, PBP14, PS13, PG22, PMSI21, PST15, Rav05, RW11, RW13, RL13, RW06, SMN10, SBMR18, SRW⁺18, TUV10, Wan07a, WG12, WL20, Yiu95, ZWH⁺14, ZFwCW15, dCFC20].

Control [vWBV09]. **Controllability** [CFGLT22, NMS06]. **Controlled** [vLH14]. **Controller** [WOP23]. **Controllers** [AK04, OSS22, Rav02]. **Controlling** [Rub12, ZSD⁺10]. **Controls** [GXY15, HJ18b]. **Convected** [IR98].

Convection [ABR17, Ber95b, BBM⁺15, BDK12, BKS98, CLK18, CKV99, CDG⁺09, DMS01, DT00, DMRR19, FMM98, GR05a, GKV00, GM21, GB06b, GV98, HR99a, Hei96, HY10, JJK23, JX13, KGM⁺08, KGM⁺11, Kol99, KL00a, LE10, LP96, LMR98, LRD⁺04, LS05b, Lu95, MZ19, Not12, Pol16, TUV10, WX99, WE06, XQX15, ZLS12]. **Convection-Diffusion** [BBM⁺15, BDK12, BKS98, CKV99, FMM98, GKV00, GB06b, GV98, KGM⁺08, KGM⁺11, KL00a, LP96, LMR98, LS05b, Lu95, MZ19, Not12, TUV10, WE06, XQX15, ZLS12].

Convection-Diffusion-Reaction [ABR17, CDG⁺09, DMRR19].

Convection-Dominated [Ber95b, CLK18, DMS01, GR05a, GM21, HR99a, Hei96, HY10, JX13, WX99].

Convective [HHT03]. **Conventional** [LZ04]. **Convergence** [ABF96, AAO23, BK04, BVW03, BJW18b, CDH98, CH02, CK19, CL18c, DH21, DH95, DKPS17, DV20, EH18, FS02, FP14, GJS19, Gee19, GGL07, GG18, GLC21, GK11b, HHSW11, HSN⁺20, HBS00, IM97, Kol99, KBD21, LZ02, LNZ19a, LS05b, LR20b, MS19, MW03, Mit23, NN12, PHW19, QS08b, Red99, Ros05a, SO15, Son12, SZW20, SLC01, Tao22, VL10, Vil09, WMSG09, WZ15, WX17, YWW23, vdVY00, BY93, HLS93, Lei93].

Convergent [Abg09, BB10, BK08, BM01a, BH23, CGO22, HO18, KLZ22, KK23, LWZ17, NN19, Ros96, STY21, TBKF14, WYT18, XK08, YSK19].

Conversion [CC11]. **Convert** [DTY20].

Convex [AP01, BV03, BW20, FKQS17, GNPT18, KY19a, LNS96, LTW18, MK96, OK13, SCDM⁺10, TV98a, ZKN20, Zha20].

Convex/Concave [LNS96].

Convexification [GPZ17, XK08].

Convexity [LR99, Obe13].

Convexity-Preserving [LR99].

Convolution [ARM⁺19, Ban10, BSS17, DD13, GT06, GJZ18, HT14a, HS06d, JLZ17, KKT13, LFLS08, LS02, PGLD96, RO15a, RWA95, SLFL06, WX17, XAW17, XL18, ZW03].

Convolution-Diffusion [GT06].

Convolution-in-Time [DD13].

Convolutional [TP21]. **Convolutionals** [AT19, BR11, MMS23].

Coordinate [CWY17, DZ12, DFDM19, DR13, MB13, MHS98, PXYY16, QZZ14, TLLL23, VS23, WWYX20, YPN⁺01].

Coordinate-Stretching [DR13].

Coordinate-Update [CWY17].

Coordinates [BMTZ13, BN00, CDF18a, CM98c, HK02, LWCL03, PKS21, QDKW18, ZWP21].

Coordinatewise [LLW19]. **Copolymers** [CGO22].

Copper [Ben13, Ben15, Ben17, BD23, MY21, Tum10, TBC⁺11, Vas05, Yav19, vdV01, vdVDE⁺02, vdVDE⁺03, Vas07].

Core [ADL⁺12, GKN18, Ros96, RS99, RTR⁺16, AGL10].

Cores [BHL⁺20, FHL⁺23, HRR23, ROM18].
Corner [CKS01, DP07, LTC13, SL09a].
Corners [EO16b]. **Corotational** [HSWW08]. **Correct** [Pat97, ZH09].
Corrected [AW11, BMV13, DR13, RWW14, Str95].
Correcting [SX16a]. **Correction** [AT20, BV20, BQR18, Buy20, CMM95, CC18, DH95, DT00, DGL⁺12, FTY15, GBM22, GXY15, GM20, GX20, Hei96, HXX18, HiH18, JLZ17, KSU14, KRS21, LHR⁺18, OZ16, SZ06, VC00, WJW21, Wu18, Yav98, LK93].
Correction-Type [CMM95]. **Corrections** [Bot23, CWX15, CGX21, HO96b, RS16, SAB14]. **Corrector** [RC06]. **Correlated** [BzCS11, Hei13, HTH⁺16, KY19a, KLLY20, OVV17, SM19]. **Correlation** [ABTZ14, LCD18, ZMS21]. **Correlations** [AC22, BBBV13]. **Correspondence** [WK18]. **Corresponding** [SSR⁺22].
Corrupted [HLZ13, MRL⁺17, YZY09].
Corruption [SX16a]. **Corruptions** [HN19].
CORS [CJH11]. **Cosine** [AMHR15, FO08, LCA08, LSY21, RO12, RO15b]. **Cosmic** [SCM10]. **Cosmological** [RF10]. **Cost** [ABL20a, CDPC13, HCL23, RMC12, SE13, TWK18, UA04, WMSG09].
Cost/Reliability [SE13]. **Costs** [BSH16].
Couette [Kup98]. **Coulomb** [CHH01, GGM01, HCL23, HSW08, JLXZ21, XC20].
Coulombic [HA17]. **Counting** [KPP⁺14].
Coupled [AHN⁺20, AFF⁺15, AM22, ABB23, ATK12, BF01, BBS13, BG07, BKFG19, CLS16, FHFR19, FN94, FCF19, GML⁺21, HKD13, HYW20, HSSZ09, KLJ10, LSV17, LSZ17, LRGO17, MB19, RWKW14, RWWK15, RSS20, SMZ18, WH13, ZFZ14, Zha22b, ZS23]. **Coupling** [ACL09, AKMRB22, ACF09, BCAG22, BCF13, BCM15a, BK18, BJ08, BCdF⁺20, BRK16, BKBT18, CHV⁺18, CSS12, CDN16, DL17, DFJS19, ES17, FGS14, GH02, GDC⁺23, GLL21, GJ07, Her08, HQH⁺16, KCZ15, KW16, KNV⁺16, LFM22, LQR12, LXK08, MNBK10, ORST12, PM15, Sha12, TK13, VY09, WLLZ18, WCL⁺21, DS95a].
Couplings [CCCZ10]. **Covariance** [BESS19, DN97, EAA21, FB95, NRS18, OPR23, TTY16]. **Covariances** [CAB04, GLS08]. **Cover** [GS02a, HLZ19].
Covering [BLMS21, BLMS22, Wan13].
Covolume [CKV99, CMSS06]. **CP** [VMV15]. **CPTR** [RJLW20]. **CPU** [BBD18, HEGH14, YTD15]. **CPUs** [RZTB22]. **CQ** [DF20]. **CQ-Wavelet** [DF20]. **CR** [GT94]. **Crack** [AFMP15, ACHN21, BCKK16]. **Cracks** [AKLP10, JLZ16a, ODN17]. **Crank** [JILGZ20, LPP09, Mu97, Tie18, WRSZ18].
Criteria [AGL13, BHvST14, BR05b, Don06, EV13, FS08, GCG⁺19, INS05, JSV10, SRI⁺18, WI12a]. **Criterion** [CMM95, GL03, ZG23]. **Critic** [ZHL21].
Critical [BHW99, KM05, LZ01, LZ02, YZ05].
Criticality [HHM17, Zas95]. **Cross** [BLS14, DKS23, DV98, GK12, GH07, GMS21, KL15, RO15a, VO19, WE13, Woo94, ZWH⁺14].
Cross-Entropy [WE13, ZWH⁺14].
Cross-Ratios [DV98]. **Cross-Valued** [VO19]. **Crossed** [EAA21]. **Crossing** [JG02]. **Crossings** [BG11]. **Crosswind** [WX99]. **Crout** [LSC03]. **Crouzeix** [HM20c]. **Crowding** [Ban08b]. **Crystal** [AAB⁺15a, AEMM16, CS94, Fli13, GX16b, HLM16, JSCB20, PV15, RG13].
Crystallographic [TGPK23]. **Crystals** [CS94, CYZ17, MMRN15, RS00, TLLL23, ZYLW16]. **CSE** [DJM16]. **CSP** [HG98].
CSR [BNN23]. **CT** [RKW20]. **Cub** [AB08b]. **Cub-Octahedron** [AB08b].
Cubature [CZ13]. **Cube** [BHW99, CD15a, GMSB16].
Cube-Partition [CD15a]. **Cubed** [TDTF03, YCC10]. **Cubed-Sphere** [TDTF03, YCC10]. **Cubic** [BFK05, EL20, MS07d, TV98b, Zha18a, AE95, HHRV93].
CUDA [DARG13, Hog13]. **Cumulant**

[DGP18]. **CUR** [KG18, SE16].
CUR-Factored [KG18]. **Curl**
 [BVV08, DFW21, DFW22, HZZ20, RC23,
 ZWZ19, Doh21]. **Curl-Curl** [BVV08].
Curl-Curl-Conforming [HZZ20].
Curl-Free [DFW21, DFW22]. **Current**
 [AGHJ23, CCCZ10, IHTR12, JLZ16a, KL12,
 RH09, WKM⁺07]. **Curse** [OT09]. **Curtis**
 [EJJ08]. **Curvature**
 [Bru18, CS94, DN19, Kog22, KKK18,
 LCG21, LTG22, Ren15, Tim19, Vog16].
Curvature-Augmented [Vog16].
Curvatures [BG20]. **Curve**
 [BM11, BR14, BH16, COZ96, KK02a,
 MNRI19, ZD19, HO93]. **Curved**
 [CH09a, CW13, CW14, CS12, DL19, Far01,
 HSMT20, HT16, MAH22, SF08]. **Curves**
 [BBSV10, DD00, EL01, EL03, GST23,
 GMPZ06, Hel11, JED10, Kog22, LNS96,
 MK96, MV06, RV22, SL20, YH17, YH19].
Curvilinear
 [AORW20, BS03, CHW17a, CFJT18,
 CM98c, DKR12, GHTW00, Giu22, HLW13,
 KP12b, PKS21, War13, ZWP21, Zie12].
Curvilinear-Orthogonal [Zie12]. **Cut**
 [BCM15b, CCS97, EMNS20, FK21, GSM20,
 LYZ20, LTzT21]. **Cut-Cell** [LTzT21].
Cut-Off [LYZ20]. **CutFEM**
 [BEH⁺19, BHL22, CBK18]. **Cutting**
 [DP07, JED10, Pet99b]. **CWENO** [FK19].
Cycle [Fer98, KSB11, Kwa99, VL10, BGP94,
 TW93]. **Cycle-Convergence** [VL10].
Cycles [AY23, FD03, GKD05]. **Cyclic**
 [AP97, CWY17, GM21, Pen00, Reu99, LJ93].
Cyclically [GV98]. **Cylinder**
 [HLP08, NH12]. **Cylinders** [CFM96, GP96].
Cylindrical [HW15, LCH99, She97].
cylindrically [WM93].

D [Mir21, ACD⁺08b, BWV15, BH97, BI09,
 BK14, BIA99, BIA05, Bur97, CMV97, CP13,
 CWL⁺14, CCC18, CD01, CDB13, CGX21,
 CMSS06, CH11, DHM22, Don06, FMW19,
 GH13, GvR22, GV16, GD03, HA01, HHLZ21,
 KW07, KAU18, KP06a, KLZ22, KC16,
 Kra09, KNV⁺16, LRP07, LS12b, LFJS14,
 LYL⁺11, LW03, Min02, NN03, PATF19,
 PTT20b, PS10b, PWGW12, PELY13,
 PRSS11, RL18, RH06, Sma01, VB07, WZC19,
 ZNZ16, ZND18, ZCW10, vVKA11, vdSF21].
D-RBF-PU [Mir21]. **DAE** [CLPS03].
DAES [Bar05, ABST13, AL97, GLMS22,
 SBS98, SKP22]. **DAGs** [HRS10]. **Damage**
 [BA05, BL23b]. **Damped** [BV09, EKLS⁺18].
Damping
 [EDGL12, HWZ19, Kol99, WWJ12].
Dantzig [FLX21, WY12]. **Daphnia**
 [BGSV15]. **Darcy** [EZ11, ACL09, AHT17,
 BKKM22, BT13, CDF18b, CLS16,
 GHMY18, HLLM15, LTW18, LBHH22,
 VY09, XZ10, Zha22b, ZS23]. **Darcy-Flux**
 [EZ11]. **Darwin** [LM15]. **Data**
 [ABKS16, ATWK19a, ATWK19b, ATWK20,
 AVBTG17, ACLZ15, AKM⁺14a, BDS98,
 BL03a, BLS06, BG10, BB08a, BzCS11,
 Ber00b, Bör09, BT20a, BBC⁺21b, BZ97,
 BGR16, BTLZN22, BF107, CBHB19,
 CHL20, ÇKAA22, CPT05, CH09b, CKLN98,
 CE17, DGS08, DJM16, DG17a, DFH⁺19,
 DKS23, DMM18, DMM19, DSZ13, EPSU09,
 FDH⁺20, FS12, FS13, GSWZ20, GLS08,
 GS12, GPA18, GGB22, GH14, GMPZ06,
 HMST11, HHS⁺16, HW99, HKC⁺04,
 HM20a, HC18, Hok20, Hös94, IS17, IA14,
 ILW17, JL19, JL20, JLZ16b, KTB14,
 KLN20, KY14, KLS08, KP05, KHW⁺14,
 KP07, LOSZ07, LMM18, LR99, LNS96, Li99,
 LLSX21, LZ13b, LS09, LB07, LB08, MKW23,
 MZW09, MDC08, NNT13, PS18, PGLD96,
 PGW17, Peh20b, PVK16, PCL⁺16, PR22,
 PDC99, PS12, PJ96, QCJX21, RSNNR17,
 RLG98, RDB16, RNR13, RG20, RBG23].
Data [SDNL10, SX16a, SKN19, SKJ⁺13,
 SX11, SW10b, TP18, Tad20, TZ18, TP21,
 TBKF14, Til15, UWWP23, WDT22, Wil09,
 WQX20, XMRI18, YCZ13, YS16, ZCC⁺16,
 ZFHS15, Zim20, dSGS22, DR93b, Gu93].
Data-Assimilation [TZ18].

Data-Bounded [Ber00b]. **Data-Driven** [CBHB19, DKS23, GPA18, GGB22, HC18, Hok20, IA14, MKW23, PGW17, QCJX21, RBG23, WDT22, XMRI18, BBC⁺21b]. **Data-Informed** [BT20a]. **Data-Noise** [BG10]. **Data-Parallel** [CKLN98]. **Data-Quantitative** [ATWK19b]. **Data-Sparse** [BB08a, Bör09, LOSZ07]. **Database** [HBJ04]. **Datasets** [YYWY18]. **Daubechies** [Jam96]. **Daubechies-based** [Jam96]. **Davey** [KR11]. **Davidson** [AH04, CPS94, FSvdV98b, GSR19, HL10, Hoc01, HHLW15, HJ19, NvdP00, RO18, RZTK⁺15, SSW98]. **Davidson-type** [NvdP00]. **DC** [vdDA12]. **DCT** [ZLBC03]. **DD/AMG** [BFJ⁺15]. **Dealiased** [BR11]. **Deblurring** [BNP15, BDE08, BDR18, CDBH16, CC10, CH08b, DEC05, MO00, NCT99, SC03, WNC08, ZYZ09]. **Decay** [BC13, Gos12b, ZCZ04]. **Decaying** [AL119]. **Decimation** [AKW17]. **Decoding** [HJLZ18]. **Decomposing** [ZBdAF20]. **Decomposition** [ABLS05, AJS22, AJ22b, AK17, ADGP07, AK04, BMP14, BMP16, BO17, BDD⁺97, BDHS10, BJNN02, BL04a, BFJ⁺15, BSSS23, BLB00, BCLT15, Bet08, BLP14, BF95, BFK03, BEKM16, BT13, BIA05, BCY21, BHM19, BDG20, Cai95, CMS94, CGM⁺21, CDS98, CB22, CRO23, CBS00, CCG14b, CGHT14, CML⁺18a, CML⁺18b, DU19, De 12a, DM13b, DT95, Den97a, Den97b, DL23, DW17, DKK21, DW94, FVV21, FKK⁺14, Gar94, GKNW18, GLMN15, GBC⁺20, GJM94, GST23, HMN⁺13, HLLM15, HIT19, HN06, HKLW19, HHK19, HKL23, HM14, HS06c, Hes98, HLR18, HJJ22, HJMS07, IW14, JFG13, JKKM01, JCL07, JS10, KXS18, Kal20, KU18, KR23, Kla98a, KW00, KLR15, Kus97, Lar99, Lee13b, LN17, LPP19, LJ19, LW15, LBHH22, LLJ22, LT20, MRS04, MPRW98, Meu01, MNU23, MR94, Mu95, MZ19, NH13, NRSD18, Nov23]. **Decomposition** [OT11, Ose11, OX22, PNL⁺21, PHY20, PS10a, PDG20, PL12, PK19, QSM19, QSV06, Rav02, RL10, RSSM18, Rei21, RGG06, SRM⁺15, SRT23, SMYS21, SAY03, ST98, Ste99, TLN14, TS11, VVM12, VMV15, WZ22, WG00, WCG23, YCC10, Yu01, YSS07, YYY11, ZT17, ZND18, ZBK18, Zha22b, ZS02, Ain96, ALT93, BD93, BZ93, BR95, Cai93, DS95a, Hes97, Nat95, Nat97, SS93c, MDA22]. **Decomposition-Based** [CBS00, JS10]. **Decompositions** [CP17, DH16, DMM18, Hös94, LWZ13, Rah13, RDB16, VDD19, YR98]. **Deconvolution** [Bar99, EK14, DG95]. **Decoupled** [AHN⁺20, GHMY18, HZXC16, KS14, SRS19, SY14, Ske00, Yan21, ZHY21, ZLZ22]. **Decoupling** [AM22, LC05a, LC08, Sch02, WNC08]. **Dedicated** [DMD⁺12]. **Dedication** [PS97]. **Deep** [AAO23, AT23, BBC⁺21a, CLL20, CHWY23, GPW22, GN22a, GN22b, GN23, GJ21, HJZ23, KK23, LCG21, LMRS21, NZGK21, NCCR22, TPQD22, WZB⁺23, YDK22]. **Defect** [DH95, DT00, EM96, GGS19, Hei96, SZ06, LK93]. **Defect-Correction** [DH95, DT00]. **Deferment** [PSB⁺06]. **Deferred** [AT20, BQR18, Buv20, CC18, FTY15, GX20, RS16, VC00]. **Deficient** [PRM97, QOQOP99, Sco17, Wan97]. **Defined** [DPF15, Isa20, MT19a, MFSY19, PHA18, PV08, RL18, RS03, Say15, Zhe07, BGP94]. **Definite** [ARS21, AJ22b, BGLY05, BGM13, FEM08, GM17, HP21, JFG10, Lan19, MV00, MB99, Ng00, Pla15, SO18, VSS14, Zha96, FS96, FF94, MO21, GLMS22]. **Deflated** [ARMNW10, GGPV10, JvGVS13, Mor02, RF07, SYEG00]. **Deflating** [SO10]. **Deflation** [AEFM17, BEPW98, CGL⁺13, DV20, FBF15, FV01, GSO17, HLM16, KR12a, NV05]. **Deflation-Based** [FV01]. **Deformable**

[ABCP08, KRDL18, PRM09, Ros06a].
Deformation [GKT09, MGDB19, PWGW12, SXL⁺22, YSK19, de 99].
Deformations [DZ08, EHLW20, GBS⁺22].
Deforming [Ros05a, Ros05b, SGS22, TK13, ZHQ20].
Degenerate [BCF12, BBM⁺15, CLST03, CHL16b, LSZ11, Slo02, WY19]. **Degraded** [NO98]. **Degree** [Ash95, CF23, DEV16, Gre03, Hok20, IMS96, NP17, SV11].
Degrees [HHL07, Lin06]. **DEIM** [SE16, WSH14]. **Delaunay** [CWL⁺14, CC06, CC09, CC12b, DV98, FCC10, Gär09, HGPM14, Joe93, JGZ06, LC05a, LC08].
Delay [BP97a, BMV05, CZK15a, ELtHR00, HV04, HXB11, HXB13, JMM10, Kus00, May08, SSH06, TSK09, WRSZ18, ZCZK14, ZPE12].
Delay-Dependent [HV04].
Delay-Differential [SSH06]. **Delays** [HV04, PvdVvG17, SE11, SE13, WZ21a, XZB11].
Delta [SJD14, Wen08, Wen10]. **Deluxe** [BPS⁺14a, HPS22, WSP22, ZT17, dVPS⁺17].
Demonstrated [PWM22]. **Denoising** [AKM⁺14a, CC10, CC03, CMK11, HID23, LLZW19, VO96, WNC08, WY13]. **Dense** [BOR97, BDvdG05, Bör07, Che98, CPD17, DB98, FT03, HLD12, HW94, HJS99, Hog13, LXdH16, Nat98, PPB13, Rah96, RZTB22, ST17b, ST19, TMA23, WLX⁺13, Xia21, Yan94, LJ93]. **Densest** [TGPK23].
Densities [BJW18b, CCRT21, GZYW18, Gub96, KKS08, SY10a, XLS18]. **Density** [AM05, BR19, Bar12b, BTGH12, CK17, DKS21b, EMT09, ES00, FGMP13, FGMP14a, FGMP14b, GHKL22, GKM⁺17, HNU23, HSF07, KY19a, LY13, PATF19, PCL⁺16, Red99, RN14, TV98a, UWY⁺15, WK18, vdSF21]. **Dependency** [Til15].
Dependency-Aware [Til15]. **Dependent** [ATK12, BS15a, BFN17, BCM11, BFS16, BCCX21, CB98, CCG14a, CEJ⁺10, CCA20, CIZ18, CBS00, DL20a, EKSW15, FEL18, Fu21, GN19, GLOR16, GC17b, HJ18b, HV04, Hwa07, ISS19, KPS19a, Kna98, LH00, Luo19, MCL19, MO00, ML11, MNZ15, PNW16, RPK18, RZ03, RSSZ08, RWX07, SE11, SB05, SKJ⁺13, SSN19, TUV10, TPT⁺16, Wel17, XCS16, ZN16, ZCW10, ZGK20, vSRV11, Nor07].
Dependent/Algebraic [TPT⁺16].
Deposition [GST⁺99]. **Depth** [ZCE06].
Derivation [ABBM98a, CGI11, FHFR13, XW05].
Derivative [AMHR13, ACG20, AMV22, BtVCG⁺10, CAG⁺19, DZ15, FF15, HR14, HBSC97, IT14, KR17, MGG19, NL16, SPKB13, SXXN22, XC13, DS95b, SS93a].
Derivative-Based [CAG⁺19].
Derivative-Extended [SPKB13].
Derivative-Free [SXXN22]. **Derivatives** [Cao07, DS97, GPHHAPR18, GPK04, HW14b, KP09a, Man99, OR18, ÖB05, RKLN07, SSW18, MS93a, WTS94].
Derived [ATWK19b, CL03, LM00].
Deriving [DO11]. **Descent** [AS21, CCY23, DFD19, LLW19, NLY23].
Described [AKM14b, GLT18, GPS95].
Describing [MK96]. **Descriptions** [GZ19].
Descriptor [GSW13, HSS08]. **Design** [APSG14, APSG16, AS18, ACLZ15, AC22, ALM22, BFI07, CM98a, CM98b, CGDD11, DKKP14, DW17, EHS19, GS12, HOY03, HHP21, HHP22, HAS20, HMR09, HRS10, LPSB17, LD04, LPY⁺21, MEHL16, PTvR⁺14, RtTBAI21, RCC18, SRS19, ST03, TCCK18, WOP23, WCG23, XZ14, vdHCDD15]. **Designed** [BEOR17, KKN18, KKN21]. **Designing** [CCO11, Huc08]. **Designs** [GHKF22, HRP20]. **desingularization** [HLS93]. **Detailed** [HS16, YS16]. **Detect** [MBKR22]. **Detecting** [CE17, FD03, VP11].
Detection [ACY⁺20, AFMP15, BS95, BBC⁺16, CGKM16, CD06, DG17a, DGLW16, HHMDC18, HA08, LS09, MRL⁺17, VR16, WDG⁺18, ZLWZ18].
Detectors [AdSK19]. **Determinant**

[CG18]. **Determinantal** [PH16].
Determination
 [Jac03, JK15, NH14, SCC17, XC13, Sar97].
Determining
 [BIK02, CWD13, GJ05, HHP21].
Deterministic [CCM05, FS12, FS13, Kue12, LTT16, PDG20, Ros96, WKKP13, XZ14].
Deterministic-Stochastic [FS12, FS13].
Deterministic/Monte [WKKP13].
Detonation
 [BJ01, BBH⁺16, DWQY19, HLW00].
Detonations [COZ96]. **Developing**
 [LHL11, Wal18]. **Development** [DMMB10, LZ99a, PV15, TKCC13, WL01, CSS93a].
Deviatoric [Rei20]. **Device** [FFMT96].
Devices
 [BBGS13, BG07, BBH⁺16, RWA95].
devising [Yav93]. **Dewetting** [ZJB20].
DFN [BPSV15]. **DFT** [DMM19]. **DFTs**
 [PSFL20]. **DG** [PL21, AW20, CHW20, EMNS20, KR14, KZP20, Leh15, LGW19, ZHQ20, ZP20, Zha22b, ZVF18].
DG-Interpolation [ZHQ20]. **DGTD**
 [LSV17]. **Diagnosis** [BT00b]. **Diagnosics**
 [Str93]. **Diagonal** [AKA13a, APÇ04, Cas97, NP10, PKNS14, Saa05, TS11, VV13, dSL05].
Diagonal-times-Toeplitz [PKNS14].
Diagonalizable [HLTT97].
Diagonalization
 [BOR97, GHRR19, SBR06, WZ19].
Diagonally [CEHN08, KW15, QS08a].
Diagonals [DHHR09]. **Diagrammatic**
 [CWY23]. **Diamond** [MHL⁺15, MW15].
Diblock [CGO22]. **Dielectric**
 [GJLX16, MG11, XJBS12, XJS13].
Diffeomorphic [MR17, MB17, MGDB19].
Diffeomorphisms [CM09]. **Difference**
 [AH18, ACHZ21, ABHS22, BOB⁺19, BS04, BM10a, BM10b, CCJ21, CZZK16, CLTX15, CFJT18, CGX21, Dar21, DGLW16, FV06, FO19, FS02, Gas13, GHST98, GLW18, GW04b, GM04, HZ11, IW14, ILK05, IT09b, Jia14, JSZ13, JX13, JZ00, KP09a, KW16, Kup01, LNP15, LSW17, LN03, LW03, LSZ11, LP03, Lu95, LK98, MC10, Min02, MR18, NN03, Not00b, OL98, OSCE00, PKD13, QS03, RU01, RLC08, SXXN22, Str99, TB99a, TW05, Tie18, TLH21, Wan04, WB12, WDG⁺18, WLZ18, WP19, WDGK20, Yam02, ZLLT13, ZWP21, ZLZ22, ZLJ96, Zin00, dVM08, Elt96].
Difference-Quadrature [AH18].
Difference/Element [ZLLT13].
Differences [ADK⁺98, BBHJ21, Hun96, JBH20, Kwa99, RMR15]. **Differencing**
 [BT03a, BN13, BMV05, Kye12]. **Different**
 [BBKS20, CHZ21, RL18, SY10a, BME93, BEM94]. **Differential**
 [AC08, ACVZ12, AVZ13, AdS22, AW15, AS94, BP97a, BJNN02, BS96a, BBH18, Bea20, BCM05, BB03, BBC07, BMV05, Bre17, BHP98, BHW99, BOPGF06, BB02, BLL07, BDW11, CG18, CG95, CB98, CLPS03, CP04, CZK15a, CZK15b, CZZK16, CCG14a, CJGX15, CHWY23, CKK03, CCG14b, CMM95, CRV13, DL19, EPR10, EF15, ELtHR00, EM99, FBF15, FGH⁺08, GASSS98, GGS19, GK03, GLT18, GB98, GPS95, GRPK19, GW00, HO18, HHS⁺16, HTMM15, HvBW23, HH13, HKL⁺22, HJ98, HLS98, HO94, HO96b, HVW95, HV95, HRS19, HHL07, HG00, HV04, HXB11, HXB13, IM99, JBH20, JL03, KK13, KKN21, KZK17, KS20, KLR15, KCB17, KW15, KMRW97, KR12b, LL17, LCH09, LU17, LV20, Lee09, LMW15a, LE17, LLS13, LCD18, LN05, LPR98, LJ17, LZ20, LZ13a, ILN21, LCH99, LCR20, MPS18, MR09].
Differential [MGG19, MGB18, MB00, MPW18, McL95, MKW23, MT97b, MT06, Mis01, Moo00, MS07e, Mor23, MTBT17, NT18, PRM97, PP12b, Pul08, QFW22, RPK18, RMB00, RF10, RNR16, Rim18, RW06, RWX07, Sch98, Sch05, SE11, SE13, SWX16, SB05, ST23, SSH06, TSX17, TSK09, TS14, VZA⁺23, Vil14, WL08, WMHK19, WC22, WH13, WC17, XK02, XH05, XT06, YZK20, YR12, ZZK15, ZMK17, ZTBK18,

ZTRK14, ZCP06, ZFZ14, ZHL21, ZV22, ZPE12, ZKV99, Zyg11, bZOW07, AGC96, AH18, Bøe93, BHP94, Gre93, HHRV93, Lam97, MT97a, MS93a, ZV05].

Differential-Algebraic [AS94, BHP98, CLPS03, CKK03, GB98, GPS95, GW00, HTMM15, KMRW97, MB00, PRM97, RMB00, Sch05, BHP94, MT97a, MS93a].

Differentiating [SW22b]. **Differentiation** [ALLK15, BBR04, BV00, CV98, CJ99, GM00b, HBSC97, KLZ⁺06, LLHF13, LKvBW10, MB00, NRO22, PT08, XC13, AMB⁺94, Jam96]. **Diffraction** [HSSZ09].

Diffuse [FKQS17, JLY08, KdS05, KSW20, OKdSG17, QS14, SKMF15, dSK11].

Diffuse-Interface [KSW20]. **Diffusion** [ADR14, AN17, ABF99, ABR17, And17, AWA⁺18, AHH12, AKM14b, AM05, BL23a, Bar12b, BG98, BC122, BPR13, BBM⁺15, BHMx18, BDK12, BW01, BKS98, BHK12, BG04, CK17, CNP12, CH08a, CDF18a, CMK11, CD15b, CLST03, CKV99, CDG⁺09, CFM96, CE16, CHL16a, CHL16b, DGK23, DMRR19, DMSC18, DY23, EO15, EO16a, EFHL09, EV13, EPSU09, FMYT16, FMM98, FDS13, FDE⁺06, FL19, FJHM19, GLR23, GW15, GKV00, GHH07, GB06b, GT06, GV98, GGS08, GLW18, HG98, HP14, HSMT20, HKM20, Hen05a, HLT16, IP06, JJK23, JX13, JLY08, JLZ16b, KGM⁺08, KGM⁺11, KBK⁺08, Kla98a, Kla99, Kna98, KL00a, KL11, LS12a, LP96, LMR98, LR12, LSW17, LM08, LW12b, LS05b, LSV13, LWW22, Lu95, LX16c, MRI21, MMR19, MEHL16, MO10, MBS22, MZ19, MPS09, Not12, PKNS14, PNW16]. **Diffusion** [PDH09, PS08, PS13, PP05, Pol16, PC98, QNNZ19, RC06, RNV17, SBP04, SRS12, SWN20, SY08, SY09, SM94, SSR21, TTSM08, TK13, Toi08, TUV10, TM14, TW17, UEE12, VS04, WXK04, WDE⁺99, Wan07a, WB12, WH15, WRSZ18, WYT18, WDGK20, WE06, WZ21b, XQX15, YTLI11, YCN21, YCY19, YYY11, Zbi11, ZJC12,

ZRTK12, ZZ22, ZHDZ17, ZTM⁺16, dFL05, dSGS22, ZLS12].

Diffusion-Advection-Reaction [Zbi11].

Diffusion-Driven [YCN21].

Diffusion-Reaction [EO15, EO16a, VS04].

Diffusion-Wave [JLZ16b, ZZ22].

Diffusions

[DMR17, JKLZ18, KOSB16, ZWH⁺14].

Diffusive [CM09, CILZ15, DPS18, GM20,

JLP18, LS23, MBS22]. **Diffusively**

[BMV13]. **digital** [Gu93]. **Digits** [Nik13].

Digraphs [MZW09]. **Dilute** [KP10].

Dimension [Ain14, AS16, AGK18, BS05a, CM98a, CKLL16, DSRMK17, FK21, GBCT10, GST23, HKK⁺22, HC95, IT14, KU18, LZMW20, LYLC17, MR07, NG18, OB21, PSDF12, Red99, RT99, SvG10a, SD10, TWJ⁺23, WS05, WWH17, ZCPM20, ZP18, dSGS22]. **Dimension-Independent** [CKLL16]. **Dimension-Oblivious** [GST23].

Dimension-wise [OB21]. **Dimensional**

[ABC⁺16, APSG14, AS18, AILP07, AO17, AHR12, AGPR19, Aru12, ASS16, BT06, BBKK97, BPS22, BBSW94, BMMR20, BLMS21, BF22a, BK20, BP22, BP06, BBH20, BTWG08, BTGMS13, COZ96, CL18b, CHR99, CHL20, CGS02, tVÇAU10, CGV18, CCL⁺20, CJGX15, CC09, CL08, CAG⁺19, CJ95, CGM00b, CST⁺13, DFS17, DD00, DTR21, DF20, DL19, DSRMK17, DF99, DSZ13, DHZZ18, ES22, EPSS22, EFHT23, EdDP09, FCC10, FSV22, GJ08, GVP06, GKC13, Giu22, GC19a, GGL⁺98, GB06b, GT06, GV98, GH14, GN22a, GN23, GC16b, HHMS15, HM98, HJ07, HZXC16, HRT03, HRT13, HC98, HR99c, HSW08, Hun95, Hun96, HGPM14, ISW18, JK07, Joe95, JK08, JP01, KK18, KL06, KL10, KR06, KS17, KS15a, KWG⁺20, KPW17, KLLM22, LL98a, Le 09, LP08, LS95, LCA08, Lem16, LB15, LY16, Liu20]. **Dimensional** [Liv08, LSPRV21, LD04, Mac98, MRI21, MV09, MABO07, MXYB16, MMR19, MB13, ML11, MZDK22, MZ94, MMN00, MDC08,

NKLW94, NZGK21, NJ14, NS06, NMAB11, OS14, PJZ23, Peh20b, PNP13, PVK16, PMR16, Pet99b, PMSG14, PP13, PM15, Rak21, RRR03, RT01, RW07, RF10, Rim18, RDP08, RO12, Sch02, SWB16, SY10b, SY12, SWX16, SM94, Sma04, Ste16, SJD14, TLLL23, TMM20, TC99, Tsy99, Ush01, UWWP23, Vil09, VS03, WXK04, WZB⁺23, WS05, WMC12, WB12, WBTG18, WWM03, WO98, WCHZ14, Wen08, Wen10, WSP22, WSX17, XBC96, Xu04, XW05, Yam02, YHQ12, Yu01, ZzSpH14, ZHL21, bZOW07, dSGS22, vdHCDD15, APSG16, DKK21, Elt96, ED95, Joe93, KT08, LZZ18, SRCG93, SMR01, Hes97]. **Dimensionality** [ABTZ14, GH14, OT09, Sma04, ZZ04, ZCC⁺16]. **Dimensionally** [MS20]. **Dimensions** [ABMR11, ABIGG16, AA02, BK99, BL23a, Ber95b, BGH19, Beu05, BM05, BMR03, BKS13, CM98b, CP07, CD20, Dk00, DS14, DK03, EZ11, EG01, FK00b, GGLT00, GK98, GC97, GML⁺21, HT17, HKKR19, HKLW21, HZZ20, HS94, JVG12, KKN18, KKR16, LAG14, LL19, Leh15, LCY⁺20, MXB15, MLL13, MY20, Moo00, NX12, NH12, Ong97, OT09, PV08, PWZ10, Pek12, PSSW15, RRR05, RR98, Sha12, SWT00, TCZC19, TT13, Tu07, WS07, WDE⁺99, WG18, WLLZ18, XB16, YTLI11, ZF14, ZWZ19, ZXY21, ZJB20, aKT18, Cai93, EOD93, HHRV93, MSS12, Smi93]. **Dimer** [YZZ19, ZDZ16]. **Diminishing** [WI12a]. **Dipolar** [TXZZ22]. **Dipole** [Rah96, WKM⁺07, vWBV09]. **Dirac** [AOS20, BK14, FKK⁺14, Rub12, SJD14]. **Dirac-Delta** [SJD14]. **Direct** [ALM19, ASS16, BACF08, BM95a, BIA05, BH14b, COZ96, CGO22, CCC17, CKXZ18, CILZ15, CIZ18, CHZ21, CPD17, DK10, DAE02, GHRR19, GG19a, GM14a, GSK04b, GBS19, GJ21, HG12, HG00, LAG14, LZ21a, LL00, LXdh16, Mir21, MS03, NNH99, PR09, PP12b, RT99, She94, She95, SWX16, SZZ21, SV00, WT16, XXdh⁺17, XOMN10, YMW07, BME93, BEM94]. **Directed** [CGO22, HÖU⁺19]. **Direction** [BF06, CG18, CCRT21, CCL⁺20, HV96, JSZ22, MO10, NWY10, NWY11, Rak21, Sta94, WY12, WJW21, WY13, YZ11, YYWY18]. **Directional** [BPT⁺14, CCFG23, EE14, EY07, ÖB05, RL17]. **Directions** [CJ95, GT19, FGM95]. **Director** [RG13]. **Dirichlet** [AO17, BK00a, BP06, CCG14a, CS12, EO15, Fli13, GL21, HJ18c, JP16, KL06, KP05, NXDS11, OK13, OWO14, PMH⁺16, SW16, Wan22, YCZ13, Zha94]. **Dirichlet-to** [Fli13]. **Dirichlet-to-Neumann** [NXDS11]. **Disaggregation** [KV13, DS96]. **Disappearing** [APZ13]. **Discontinuities** [ALRT17, GB98, GM14b, LS94, RH06, TB02, WL97]. **Discontinuity** [DQQ13, IT14, LCH09]. **Discontinuous** [AB17, AM19, AGH13, AFRV19, AM20, ABMP22, ABB23, ACCP13, BB13, BBHJ21, BDGK18, BCS11, BBT19, BDK12, BMV11, BKBT18, BG04, CQ22, CDG17, CR23, Cas02, CNP12, CKQ14, CDF18a, CT03, CW17, CHW17a, CHW17b, CMS17, CD02, CZ22, CVK13, CHH10, CDG⁺09, CS16, CGP19, CKRS07, DEM⁺20, DLM16, DMRR19, DGK21, DF99, DHE13, DWQY19, EKSW15, EVLW17, EIL01, FKMR19, FDS13, FRS19, FHL13, FK21, GKRNS19, GK11a, Gas13, GvdV17, GHH07, GL08, Gia18, GK19, Giu22, GG19b, GH99, GX16b, GC16b, GC17b, GY17, GX20, GSM20, GW04b, HA01, HSK19, HHM17, HHE10, HH02, HSMT20, HRD21, HHvR03, HLT16, HS01a, HS18, HS99c, HXB11, HXB13, HC20b, HLL⁺22, JWH08, Kan03b, KSMM18, Kim05, Kim08, KG14, KT08, KP06b, KW18, KO13, LM20, LI01, LLLX16, LSY19]. **Discontinuous** [LST20, LY20, LY14, LX16a, LSZ17, LLS22c, LK98, LCK21, MN07, MRFV18, MMT15, MRB23, MW22, MKRK13, NP17, ORST12, ØLW08, PCFN16, Paz20, PTT20a, PP08a,

PP08b, Pet05, PRSS11, PoH09, QS18, QS05a, QS05b, QS08b, RMC12, RG09, RSA05, SSDN12, Sch98, SKWK18, SSR21, SKPD22, SKP22, SD21, SH20, TLLK09, TCZC19, War13, WWM03, Whi15, WS18, WX21, XQX15, Xu04, XS08, XOMN10, YJXZ22, YHL19, YCS16, ZKN21, ZK14a, ZCZK14, ZCL⁺11, ZP18, ZWG21, vSRV11, vdVXX19].

Discontinuous-Coefficient [DF99].

Discontinuous-Continuous [Kim08].

Discrepancies [GPS12, MC94].

Discrepancy [CZ13]. **Discrete** [AP14, AN16, AB08b, AKM14b, ACD⁺08a, ACD⁺08b, BKM19, BT06, BST08, BPS13b, BPS13a, BSV19, Bur97, BHL22, CHKM13, CS10a, CW13, Che13, CW14, CW16c, CYDK21, CH11, DHJW08, DN19, DG16, EEO01, EdDP09, FH06, FT03, FGH⁺08, FK18, Gär09, GNOR14, GZYW18, GZW18, GLZ22, HHE10, HM10a, HH13, HPS06, HGPM14, ISS19, JV96, JLZ16b, KH22, KR21, Kof04, KZ16, KPW17, LdGK20, LCA08, LM17, LW20a, LSZ23, MRS04, MEHL16, MNvST13, MRKS21, MM07, MRL⁺17, NW22, OV07, PBWB14, PDG20, PRR05, PEdD12, Rah96, RSD⁺20, Reg96, RF10, RS02, Sai20, SBX⁺08, SW22a, SH20, SW10b, TZ14, VN03, WO09, WB00, WkZ15, ZD09, ZHY21, ZCS22, dZHY23, ZW03, ZRK15, ZNX14, vGEV07, AD96, HO93, Sch96].

Discrete-Dipole [Rah96].

Discrete-Ordinate [HHE10].

Discrete-Ordinates [AKM14b].

Discrete-Time [JV96]. **Discrete-Velocity** [BST08, HPS06]. **Discretisations** [Hun95].

Discretization [ABBM98a, ABBM98b, AGH⁺20, ACHZ21, AHH⁺23, AH20, ABR17, AM22, ABIGG16, BMV18, BSV19, BAS09, BP12, BJP⁺22, CCRT21, CJ05a, CEP20, CV16, DJP00, DT00, FHL13, GCS19, Gas13, GV98, HHvR03, HJP03, HH11, HZ16, HL17, HV07, JSZ13, KLV⁺16, KV20a, KMS15, KGR16, KG14, LDS11, LMW17, LD16, MGB18, PMH⁺16, Pet05, Pic10, RW22, SSR21, TBM21, TC12, WvdZSvB18, Zha22a, dVL10, Gre93].

Discretization-Error-Accurate [TBM21].

Discretizations [AD20, ADGM98, BJM03, BLY21, BYL13, BKMRB21, CGAD95, CMS17, CF23, CGX21, DD23, DT03, Doh21, DHP17, EHS⁺07, FH06, GJP⁺14, GZ19, HSMT20, HZ11, HMM⁺21, JK00, Kan03b, KKR21, Kye12, Lee10b, Lee10a, Lee12, LGR20, MMA98, PWZ10, PP08b, PSC18, DHM⁺23, QS03, SV08a, SKF18, SWN20, SK19, TW13b, TP21, TM14, TV98b, Ull10, UEE12, VV05, WGS17, WW03, YBHY15, vdVXX19, HPS22, MMPR93]. **Discretized** [Bjø95, DGB15a, GM14a, ISG15, KT08, LCK21, PS19b, RNR13, RLC08].

Discretizing [EMNS20, WLZ18].

Discriminant [AdVC00, CG10, CLN12].

Discussion [ABBM98b]. **Disease** [BF13].

Disk [MMS23, TC99, WTW17]. **Dispersion** [ALLK15, CGX21, DW15b, GK11a, Le 05, MRFV18, VSBH99, XS08, MP94].

Dispersion-Dissipation [MRFV18].

Dispersionless [ABL20a]. **Dispersive** [DLM16, GMO14, HLL⁺22, LSV17, LHL11, PS10a]. **Dispersively** [APS12].

Displacement [GY17, LY98, QRV21, SSR⁺22].

Displacements [AD18b, HH13].

Disruption [DMM⁺16]. **Dissection** [GBDD10, HR98a]. **Dissimilarity** [GLT09].

Dissipation [GK11a, GMS02, MRFV18, Roe98, TYZ19, XZ23]. **Dissipative** [AHZ17, CEOR18, CDGT01, GMO14, GLMS22, HX21, HS21, LSU11, LW16, Mal07, Sha21b, Sha03, WS95]. **Distance** [BtVÇG⁺10, CS11, CSS12, FB19, Gro02, LL17, RL18]. **Distance-2** [BtVÇG⁺10].

Distances [BBK06, LYLC21]. **Distillation** [And99, ZYZ05]. **Distinct** [FBF15].

Distorted [SY08, SYY09]. **Distributed** [AKK14, AKK18, AK04, ABL⁺20b, BKGv16, BDD⁺97, Bar12b, BBGS13, BCF13, BTY08, BtVÇG⁺10, BFJ00, CCPS20, ÇKAA22,

CHJ16, DS16, DGRZ15, GY06, GKK10, HKR02, HWD02, HV04, HL18, IBWG15, KMV99, KZK17, KL12, KZ16, MGDB19, PR96, Rag95, SS99, SE13, Sun96, TZ18, TD99, TTMA22, Wan07a, XXdH⁺17, Liu93]. **Distributed-Memory** [ABL⁺20b, BtVÇG⁺10, ÇKAA22, Gon15, MGDB19, PR96, Sun96, TTMA22, XXdH⁺17]. **Distribution** [AB02, ADR14, AT17, ALMT20, BLH02, BV16, DGS08, HHP21, KK02a, KB96, Luu15, OAA20]. **Distributions** [BSHL14, BT20a, CS14, Gub96, KTSB19, Man99, MFSY19, PF12, SBM07, SK19, TMM20, XC20]. **Distributor** [HL19]. **div** [DMMO05, Doh21]. **Divergence** [ABN21, BF14, DFW21, MS06a, Sch02, TZ18, Tor05, WWY09, XZ10]. **Divergence-Free** [ABN21, DFW21, Sch02, TZ18, WWY09, XZ10]. **Divergence-preserving** [Tor05]. **Divide** [HLD12, KMR19, LT09, LS13b, NH13, OX22, TD99, VXCB16, VTD12, LL93]. **Divide-And-Conquer** [KMR19, OX22, LT09, VXCB16]. **Dividing** [Hun96]. **Divisible** [IK10]. **DMD** [DMM20]. **DMPlex** [HKA⁺21, LMKG16]. **DNS** [BCM15a, Hof05]. **DNS/LES** [Hof05]. **Do** [HJKK22]. **Domain** [ABLS05, ACD23, AJS22, AJ22b, BMP14, BMP16, BO17, BJNN02, BL04a, BFJ⁺15, BSS23, BLB00, BRT07, BCLT15, BSS17, Bla98, BCCK16, BKFG19, BT13, BIA05, BHM19, BDG20, Cai95, CR23, CMS94, CGM⁺21, CHL06, CB22, CCV14, CGP22, CCG14b, CML⁺18a, CML⁺18b, DD13, Den97b, DLM16, DS95a, DW17, DSZ13, DW94, EG22, EG23, EHL05, FKK⁺14, Gar94, GBC⁺20, Gri95, GST23, GNPT18, HSU21, HMN⁺13, HLLM15, HRT03, HIT19, HN06, HKLW19, HHK19, HKL23, Hes98, HJJ22, HLY13, JFG13, JKKM01, JCL07, JZ00, KXS18, Kal20, Kla98a, KW00, KLR15, Kus97, Lar99, Lee13b, LN17, LPP19, LJ19, LW15, LBHH22, MRS04, MPRW98, MR94, Mu95, MZ19, MSV00, Nat95, Nat97, NP08, PS10a, PGW17, PL12, PV94, PV95, QSM19, QSV06, RL10, RBH06, RW01, RGG06, SRM⁺15]. **Domain** [ST98, Sto21, SD11, TS11, TZ14, TP09, Tie18, WZ22, WG00, XA99, YCC10, YBM⁺18, Yu01, YYY11, ZT17, ZND18, ZBK18, Zha22b, ZS02, Zim14, de 99, vLH14, vdZvBdB10a, Ain96, Cai93, Hes97, SS95, SS93c]. **Domain-Decomposition-Type** [TS11]. **Domain-Map** [vdZvBdB10a]. **Domain-Oriented** [Gri95]. **Domain-Preserving** [CGP22]. **Domains** [ACD23, Ama98, AGH13, Bar14, BK06, BN21, BWZ10, BOPGF06, CYVK15, CS12, CF05, DK11, DL19, DR13, DW15b, DHZZ18, EIJH20, FDFW07, FKW13, GS21, GPSY17, GMYL23, HG02, HHT03, HQR19, HT09, HW15, HLP23, HJ18c, HRS19, HLW13, ILK05, ISS19, JK07, KCL16, KL15, KR21, KLY05, KC16, KNV⁺16, LQH21, MRI21, MS17, NN18, OR18, RS03, RD21, SKF18, SY12, SK05, SXK17, SF08, TWYZ20, Wan22, XSC21, XT06, ZZ18, VB07]. **Dome** [Nie16]. **Dominance** [Saa05]. **Dominant** [LWZ13, Men22, QS08a, RM08a]. **Dominated** [Ber95b, CLK18, DMS01, GR05a, GM21, HR99a, Hei96, HY10, JX13, KMER22, Peh20a, RPM23, WX99, PCDB96]. **Doniach** [DG99]. **Donor** [MS98]. **Dosimetry** [DLM16]. **Dot** [CWC08, DOKM22, ORO05]. **Double** [AMVR17, BHG14, CKK20, HDOS23, Nie06, WK18]. **Double-Exponential** [AMVR17]. **Double-Layer** [CKK20, WK18]. **Double-Precision** [Nie06]. **Doubling** [Gee19]. **Doubly** [BCT07, DP98, PLVG⁺22, Slo02]. **Douglas** [FZB20]. **Down** [SCM10]. **Downdating** [AB16b, BPT93]. **DP** [AFS19, HKLW21, HPS22, KL06, KL10, KLR14, KKR16, KLRU17]. **DPG** [GMO14]. **DQDS** [LGP14]. **DR** [EMN17, LMW15b].

Drag [Hof05]. **Drift** [BS95, BHN10, BHM18, BBM⁺08, DMR17, Kla98a, Kla99]. **Drift-Diffusion** [BHM18, Kla99]. **Drift-Flux** [BHN10]. **Driven** [CBHB19, DEM⁺20, DEV16, DKS23, DMM18, DMM19, GDLS14, GPA18, GGB22, HC18, Hok20, IA14, MKW23, MP08, PGW17, QCJX21, RBG23, SSM⁺20, SW22b, TVV11, WDT22, XMRI18, YCN21, BBC⁺21b, Kös07]. **Driver** [BWB19, Der08]. **Driving** [BM11]. **Droplet** [GL22b]. **Dropping** [KRT16, May05]. **DRp** [PP12b]. **DSMC** [Ste11]. **DST** [ZLBC03]. **Dual** [ACCO00, BCS07, BO07, BC09a, CGM99, CW14, CLK18, DFG15, DFDM19, ELW20, FK18, HS06d, HQH⁺16, HSW08, IMS96, KR06, KM16, LPSB17, LN17, LPP19, LD03, NH12, PWGW12, Rad16, SSW21, WvdZSvB18, Zam16, Zha20, FCR93]. **Dual-Mesh** [CLK18]. **Dual-Porosity** [HQH⁺16]. **Dual-Porosity-Stokes** [HQH⁺16]. **Dual-Primal** [KR06, Zam16]. **Dual-Weighted** [ELW20]. **Duality** [BBT11, CHKM13, CJK10, CH11, FM16, Hof04, WW03]. **Duality-Based** [CJK10, Hof04]. **Due** [Men94]. **Dumbbells** [KP10]. **dummy** [MS93a]. **During** [May08]. **Dusty** [PL06]. **DWT** [ZLBC03]. **Dykstra** [BR05b]. **Dynamic** [AFK15, AK17, BBS13, Ber98a, BCFJ19, BB09, Cab94, CCFP12, CE17, DU19, DL23, DEP11, ES22, GMP19, GGLT00, GT19, HM10a, HBJ04, HEGH14, KKK16, LLZW19, LXS⁺08, LT20, MNU23, NNRW09, PR09, PVC17, RP01, SV08a, SK23, SSW98, VBA18, WZB⁺23, WMI09, WSA16, YH17, YH19, YP98, ZTK19, ZXY21, ten95]. **Dynamical** [AKT16, BS05a, BFN17, BCP15, CL23, CBG⁺19, CW12, EL19, EHY21, GDLS14, GGB22, HHW00, HID23, KEC23, LSU11, MTM08, MS18b, NK15, PN19, RPSS22, RBG23, RM08a, SHP07, Sma04, UWWP23, VFGS23, WZ21a, WTWB09, WSH14, YGS⁺21, YLG22, YWL17]. **Dynamical-System** [UWWP23]. **Dynamically** [BBSV10, CL23, CHW20, MM98, MMN00, MNZ15, SNB16]. **Dynamics** [AIP19, APvDG12, AE18, ACCP13, BLS09, BMTZ13, BOR97, BLR99, BCM15a, BQRX22, BBC⁺21b, BRK16, CL18a, CTB15, CGK13, DY06, EW00, FGL09, GL22b, GKM⁺17, GKRB16, HJMS07, ISG15, Jah04, JHJ12, Jay98, KN21, Kim05, LR10, Lau22, LL98a, LLS22a, LL11, LFWP08, NKTY08, NV08, NBA⁺14, NL20, OKF14, Peh20b, QDKW18, RWKW14, RWWK15, RN14, SDNL10, Sch94, Sha21b, Sha03, SP02, SZS97, Ske09, SAY03, ST22b, TKW08, TPW09, VS23, WGF08, YHS07, YDK22, Zim14, AP93, SRCC93]. **E-SAV** [LL20]. **Each** [CGL⁺13]. **Early** [LFBO08]. **Early-Exercise** [LFBO08]. **Earth** [KY14]. **Easily** [Yan19]. **Easy** [BBF⁺22, GG09]. **Eccentrically** [GP96]. **Eddies** [SL09a]. **Eddy** [AL07, AGHJ23, BST08, CCCZ10, EAS08, Hof04, JLZ16a, KL12, RH09]. **Eddy-Current** [AGHJ23]. **Edge** [BG10, BBMR03, Cas97, DEM⁺20, DG17a, GG19b, HHMS15, HO15, HHP22, HH16, HHMDC18, MNP07, PH13, PSC⁺16, RT01, TWL21, UDH23, Wal13, dVL10]. **Edge-Enhancing** [HHMS15]. **Edge-Preserving** [BG10, UDH23]. **Edge-Promoting** [HHP22]. **EDIIS** [CK19]. **EEG** [AFF⁺15, EVLW17, WKM⁺07]. **Effect** [FLM⁺05, HJP04, SHP07]. **Effective** [AHH06, CP05, CG17, EHL05, GLQ18, JZ13, Kye12, MCT⁺05, NV08, TG04, WS05, Xia21, XL20]. **Effects** [AAB⁺15a, BL23b, BER17, CDF18a, DS96]. **Efficiency** [AMM⁺11, BSA13, CD02, HJ98, KR22, Kra09, NL20, vHBTC12]. **Efficient** [AG18, AJR23, AS18, AFK15, AFS19, ACCO00, AM05, ABTZ14, BS08, BK07, BBMZ20, BB17, BS95, BCR11, BS05d,

BMTZ13, BDdSM11, BSSW13, BL07a, BS16b, Bja19, BT97, BFS16, Bol03, BV00, BR11, BBG⁺19, BBK06, BRK16, BHK12, CB98, CMS94, CDC19, CH02, Cha18, CL03, CHX15, CCC18, CLLW20, CD20, CN10, CV98, CJ99, CRV14, CD06, CPB19, CVW06, DTY20, DHL⁺23, DH03, DTR21, DF20, DP20, DAE02, DGP18, DSYG18, EW00, EHY21, Ema10, EPSU09, ES00, FLX21, FRS19, FDFW07, FNNB05, GS16, GNOR14, GMvdV19, GCB15, GLR⁺16, GST12, GKNW18, Gon15, GM14b, GM19a, GKT09, GKN18, GS02a, GSS22, GE96, GS21, GZT⁺19, HRT10, HAG17, HNS08, HJS99, HBJ04, HX21, HBSC97, HSY20, HJX23, HMW07, IBM01, JSCB20, Jin99, JW13, JLP18, KW07, KR23, Ket08, KZ00]. **Efficient** [KPP⁺16, KRDL18, KHW⁺14, KRS21, Lan19, LMKG16, LZ21a, LS13a, LLW16, LS22, LZ17b, LZ13b, LM14b, LLZ15, LCL18, LY18, LSZ23, LC05b, LD11, Luu15, MMRN15, Mac98, MBKR22, MH95, MXYB16, MLL13, MST15, MDM15, Mön08, MAK20, NH13, NN17, NLY23, OS98, OGO16, PKR⁺13, Paz20, PHJ11, PMH⁺16, PSS17, QOQOP99, RMR15, RY03, RW07, Ren15, RKL09, RS13, RS99, RO15b, SS98, SSW21, SSW18, SKWK18, SNB16, SSW12, Sha21b, She94, She95, She97, She99, SY10b, SY12, Slo02, ST11, STY21, SF99, SO09, TT07, TB99b, UEE12, VBA18, VDD19, VPP05, WZ18, WS06, Wan13, WLX⁺13, WWYX20, Wan22, WBFA09, WWH17, WB08b, WGF08, WCG23, Xia13, XSC21, XJS13, XC13, XCLQ20, ZZY09, YY18, YZL20, YHFG22, YP98, ZFLB15, ZZ18, ZWH21, ZMqCS21, dZHY23, DG95, LSM93, PCDB96]. **efficient** [RG94, Yav93]. **Efficiently** [KMV05, MV16, MHW22]. **Eigenbasis** [Liv08]. **Eigendecomposition** [HKO99, SDNC20]. **Eigenfunction** [BBKK97]. **Eigenpair** [Dul98, MB99]. **Eigenpairs** [BBP21, De 12b, GWMG03, MW01, VK15, YZ07, YZ08]. **Eigenproblem** [DMZ21, LZ99a, Oet99, VS17, LZ94]. **Eigenproblems** [AA13, BCR03, EPE05, GPP95, Jar19, LZ99b, LWSP22, PPB13, Sta07, SM07, SVX15, VYX16, LL93, ZAK15]. **Eigensolver** [BDvdG05, GPTV15, HJS99, HLTT97, KPT16, Kny01, Nik00]. **Eigensolvers** [AGSZ16, DMPV08, KXH21, MRV06, MS06b, PQOB14, SVX15]. **Eigenspace** [BL04b]. **Eigenspaces** [KPU21]. **Eigenstates** [AP19]. **Eigenstructure** [BCS07]. **Eigenvalue** [AF15, AH04, ADF⁺19, AMV22, BCS07, BLV18, BBB14, BYL13, CR16, CJ05a, CDY07b, CHH10, DN13, DJLZ96, ES19, EMM⁺99, ET01, rFS12, GJ17, GK03, GK18, GY02, GVMM14, GPT22, HLD12, HN22, HvdG96, HL10, HvdV03, HXX18, HHL15, HLM16, HLM03, JMM10, JKM14, JMR17, Kal20, KALO07, KH18, KSU14, Lan19, LRV22, LXV⁺16, LZ17b, LLW19, LSY19, LZ23, LMT18, LWK⁺16, MV00, MS06b, Mee01, MG12, MV21, NZZ06, NH13, Ng00, NvdP00, OX22, SG11, SW03, Sta07, TD99, VMM13, VXC16, WH15, WZ22, WXS19, XLS18, XXZ20, Xue18, YGB⁺05, YBHY15, ZLG98, vD03, CW93, DS93, MCJN94, MS93b, Tre97, YL93]. **Eigenvalues** [ARMNW10, AO17, AT15, BS05e, BM12, Bou01, BBO09, BGSV15, CCQ16, CP95, DS20, GGS19, GWBW22, HM20c, HLTT97, KM05, MT22, MS12, MN11, MY18, OK13, Rah00, RN14, SZ06, SBND11, SM07, SO10, SVX15, YBLH16, Tre93, LXES19]. **Eigenvector** [JKM14]. **Eigenvectors** [KD20]. **eigs** [WT01]. **Eikonal** [ABMR11, CV12, CV15, CCV14, FJP⁺11, FKW13, GK05, JW08, PC21, ZCL⁺11]. **Einstein** [BD04, BS05c, BL08a, BLS09, BMTZ13, BR19, BN00, BH08, LC21, TXZZ22, TCWW20]. **Elastic** [BDG20, CSW99, DKM14b, GSV20b, HMCK04, LL19, Lay06, LL97, LJL09, Min02, Sei95, SBHS19, TY00, VMG09,

ZWP21, LP06, TR93]. **Elasticity** [AIP19, AdWGV⁺20, AKMRB22, BYZ19, BCKK16, CLMM00a, CLMM00b, CPW15, CEP20, CF05, DZ08, GOS03, HH13, KPS19a, KW00, KR06, KC16, Kra08, MMT15, Pav98, PWZ10, VBT99, ZP20, CMV97]. **Elasticity-Poroelasticity** [AdWGV⁺20]. **Elasticity/Poroelasticity** [AKMRB22]. **Elasto** [FKTW10, LXX08, ABMP22]. **Elasto-Acoustic** [FKTW10]. **Elastodynamics** [BHG14, BRT07, BL04b]. **Elastohydrodynamic** [GB06a]. **Elastoplasticity** [GV09]. **Elastostatics** [Sch03]. **Electric** [AAB⁺15a, ATV07, BBGS13, BJ08, GLL⁺15, HSZ12, ZB12]. **Electrical** [BTLZN22, CHH19, GJ21, HHMS15, NPS22, Tim19, vdDA12]. **Electrified** [VPP05]. **Electro** [OH21]. **Electro-quasistatic** [OH21]. **Electrocardiac** [XLG⁺16]. **Electrocardiology** [FDE⁺06, PS11b]. **Electrodynamics** [BKMM10]. **Electroencephalography** [VP10]. **Electrohydrodynamics** [KS15a]. **Electrokinetic** [BHMx18]. **Electromagnetic** [AILP07, BCAG22, BS05b, BG98, BS06a, BCdF⁺20, CCC18, CHM02, DLM16, HA01, HN20, JL19, Kon21, LM15, MG07, PS10b, Rah00, SPS18, VLM22, YHL19]. **Electromagnetics** [CHL06, SFM20]. **Electromagnetism** [CDGS05, DKSW19]. **Electromechanical** [RDP08]. **Electron** [GHKL22, KKS13, LFJS14, WPL⁺13]. **Electronic** [BCK16, CDKL22, DLZZ17, DLY14, LWYxY18, LYL⁺11, Rub12, WMUZ13, ZZWZ14]. **Electrons** [KLLY20]. **Electrophysiology** [BFSN08, CWG10, TPQD22]. **Electrostatics** [BCR11, RKLM18]. **Element** [AE08, ABF99, AV14, ACHZ21, AG18, AJ21, AJ22a, AHN⁺20, ABN21, AGL13, ACK19, BB13, BH14a, BMV18, BMNV20, BMNV21, BCAG22, BCR11, Ban08a, BJNN02, BHV05, BL23a, BB10, BBB14, BBGS04, BDM⁺18, BS16a, BOF16, BCLT15, BMF19, BMM98, BBKT15, BC09a, BP13a, BPS13a, BLY21, BBS19, BBS22, BYL13, BV19, Bla97, BBMR03, BP13b, BJP⁺22, BKMM10, BCF⁺00, BK11, BHW99, BRBT12, Bur13, Bur14, BCM15b, Bur23, BG13, CGGGS15, CI19, CGQ10, CG99, CPV95, Car07, CM98a, CM98b, CBG12, CP03a, CK03, Cas97, CFKM18, COS21, CD02, CCCZ10, CMZ19, ICCVEKV17, CFM96, CGP19, CHH01, CVE13, CSW14, DY06, DB98, DLG97, DMMO04, DMMO05, DG98, DLTZ05, DKR12, DFJS19, DHP17, DEP11, DZ08, DW15b, DTY18, DMZ21, DGvdZ18, Egg18, EAOS21, EJJ08, ES17, EIJH20, EHW00]. **Element** [Fai03, FVV21, FS01, FHFR13, FGM08, FKTW10, FCF19, FK18, GJ08, GYZ11, GHMY18, GBS⁺22, GK11a, Gas13, Gee19, GL08, GKT09, GKS98, Gra14, GdLP⁺18, GC97, HHS⁺16, HHLZ21, HH02, HL09, HZXC16, HR99a, HV01, HY08, HJP03, HXX18, Hor10, HQH⁺16, HS01a, HS18, HY10, HK95, HS99c, HM20c, HLY13, HJX23, HSSZ09, ISS19, JV96, JK11, JHJ12, JKL22, JK05, JV01, JGZ06, JR96, KLV⁺16, KV20b, KV20a, KVV23, Kan03a, KL05, KRW20, KMS15, KKLS05, KLST06, KS07, Kir14, KO17, KP22, KG14, KZ16, KKK18, KS14, LW12a, LP11, LP13, LOSZ07, LZ21a, LSTY21, LP96, LLP98, LMR98, LMM18, Le 01, Le 05, LRP07, LP08, LDS11, Lee14, LPP19, LPMR19, LMM17, LHL11, LZ17b, LNz19a, LNz19b, LZ21b, LTW18, LKvBW10, LGR20, MT22, MRI21, MR04, MH17, MM14, MRT00, MLL13]. **Element** [MST15, Mic01, MTTV98, MT23, MS12, Moo00, MS18a, MAK20, MWY17, Mu20, MYZ21, MGH21, Nat98, NNRW09, NV98, NW22, NSK10, OSU10, ORST12, OX17, OQRY18, PRS12, PDTVM08, Pav98, PWZ10, PKD23, PSKG13, PMH⁺16, Pic10, PvdVvG17, PWGW12, PKA22, PC98,

QZZ14, RT01, RL18, RW21, RS03, RW01, RDP08, RV10, RLC08, RWW14, SMZ18, SCC17, Sar98, SJR09, SV08a, Sei23, SL09a, SZ06, SXL+22, SWT00, SSF16, Sta00, Ste01, Ste00, SL09b, Tal15, TKW08, Tau96, TBH23, Tou22, Ull10, VP10, VP14, VM13, Wal18, WK06, WLE+00, Wan01, WWY09, WH15, WZ22, WGS17, WMOZ22, Whi15, WMBT19, WH09, WKM+07, XL20, YSZ14, YK03, ZKN21, ZK14a, ZCZK14, ZLLT13, ZN05, ZHY21, dZHY23, ZMS10, ZJB20, ZK96, Ain96, CGP93, MMPR93, MP94, PSC+16].

Element-Based [CBG12, ICCVEKV17, KVV23, RW21].

Element-by-Element [FS01, SWT00, DLG97].

Element-Free [HV01].

Element-Structured [VM13].

Elementary [CVW06].

Elements [Ain07, AAD11, Ain14, AORW20, BRT07, BSX22, BS23a, Bla98, Bre96, Cao07, CSW99, CGP12, CDK19, CW18, Che98, CF05, CG07, CDPC13, DKSW19, GK18, GMvdV18, GMvdV19, GJ07, GPSY17, GSV18, HT00, HPS08, HDZ16, HR16, HTW+12, HLP21, HZZ20, ISG15, KKS21, Kup00, LO11, MMK23, MBM+16, MCB18, MT09, MAH22, MV21, MAK20, MNP07, NHSS13, NN14, Nie16, Ols07, PV08, PP12a, PZPR07, PRM09, PRSS11, RKL09, Ros97, Ros06a, SB10, Sch02, SF08, TX17, WS07, Wan01, WWY11, WSK99, ZWZ19, ZHS10].

Elementwise [LMR98].

Eliminate [SO18].

Elimination [CL11, GC19b, LRW96, LHL+22, LCY+20, Saa96, YYS16, Rag95, Wri93].

ELLAM [WDE+99].

Ellipses [Gro02].

Ellipsoids [Kue12].

Elliptic [ABLS05, AH20, AW15, AGH13, ADK+98, AP99, ARM23, BKGV16, BDS98, BJNN02, BBC+01, BK06, BF95, BAS09, BB03, BIYS00, BHW99, Bur13, BEH+19, BCDE21, CPV95, CPB13, Cas02, CCER12, CT03, CD02, CM15, CJ05a, CM99, CFH19, CML+18a, CML+18b, CRV13, CH11, CDN16, CGF21, CP17, DEV16, DFL20, DK03, EPR10, EF15, EGKS94, EMT09, EPV94, EIL01, Fro12, Fu21, GV19, Gar05, GGS19, GG19a, Gia18, GM14a, GXY15, GH99, GS00, GS21, HW15, HHS+16, HCRT13, HN06, HLT16, HRS19, HJZ23, HG00, ILK05, Jia14, JCL07, JGZ06, KCL16, KMW99, KS11, KLR15, Knu96, KT08, KBP17, Kus97, LP11, LP13, LV13, Lee09, Lee13b, LLW16, LY20, LY13, LXdH20, LNS15, LGR20, Lui00, MV94, MK08, MWY17, NRMQ13, NV98, Ols07, PL03, PS11a, PP08a, Pic03, PRSS11, QZZ14].

Elliptic [Rak21, Sch98, SY10b, SY12, ST00, ST23, Sta97, TY08, TPB17, TV98b, WR13, WZ18, Wan04, WHL18, WJS23, Xu94, YZ05, bZOW07, Cai93, Gre93, HHRV93, McG95].

Elliptic-Parabolic [LV13].

Elliptic-Type [Kus97].

Elliptical [PRM09, Ros06a].

Embedded [AP12, BH12, CKN06, Giu22, HRD21, HBL05, KP05, KP06b, LKvBW10, OKGG+23, ÖB05, PDE+17, SSVW17].

Embedding [AG21, CL18c, DFS17, DN97, GL18, GLT09, GS21, MDC08, CG93].

Embedding-Based [GL18].

Emerging [AHK+17, PDE+17, PK19].

Empirical [AN16, BEEM18, CS10a, DG16, DHO12, JK10, Kea97, PBWB14, PDG20, Sai20].

Employing [WWY11].

enabled [CGHT14].

Enabling [HvBW23, MKWG15].

Encapsulating [UA04].

Enclave [CHW20].

Enclosed [PHA18].

Enclosing [LHL12].

Enclosures [BBB14, DS20].

Encoded [NNRW09].

End [ZMK17].

End-Point [ZMK17].

Endpoint [AMVR17].

Energetic [DCL+21, Lee10a, LW20a, LWW22].

Energetics [BZ10].

Energies [DN19].

Energy [AK15, AAB+15a, ALI19, AN16, BPS14b, BW01, BJ08, BMR13, CGO22, CCKP21, CCC17, CYZ17, DK10, DJP00, DG09, Doh03, DS14, EL20, GJ08, GHMY18, GZW18, GZW20, GCN21, GMYL23, HSWW08, HKR16, HL20, HJP03, HJP04, HX21, HYW20, HS21, In99, JFSO23, KG14, KSW20, KWD22, KKR21, LW12a, LO19,

Li03, ILTZ21, MHW22, MNP07, NPS22, OST11, OWO14, QNNZ19, RWW14, Sha12, SY14, SXL⁺22, TYZ19, Vas10, WCS00, XZ23, YY18, Yan21, Yan18, ZHY21, ZWWZ21, ZYLW16]. **Energy-** [GMYL23]. **Energy-Based** [NPS22, Sha12]. **Energy-Consistent** [HSWW08]. **Energy-Corrected** [RWW14]. **Energy-Decaying** [AL19]. **Energy-Minimization** [JFSO23]. **Energy-Minimizing** [HKR16, KKR21, WCS00]. **Energy-Norm** [Yan18]. **Energy-Preserving** [EL20, MHW22]. **Energy-Stable** [HYW20]. **Energy-Transport** [BJ08, DJP00, GJ08, HJP03, HJP04]. **Enforced** [DMZ21]. **Enforcement** [DJMR23]. **Engineering** [JKR08, SBMR18]. **Enhance** [Zen16]. **Enhanced** [ADK⁺98, BCCSS21, EEO01, GG19b, HLM⁺09, HTH⁺16, JFG13, KM98, PDTVM08, PR22, Zim13]. **Enhancement** [ABIN20, DGP10, DS97]. **Enhancements** [DMM18, EG93]. **Enhancing** [DSA23, Gup17, HHMS15, NZZ06, TMA23, Wan12, ZH21]. **Enlarged** [GT19, Mou20]. **ENO** [CLTX15, DBSR17, GB12, JP00, JSZ13]. **Enriched** [EAOS21, Gia18, HY10, HM20c, LLW16]. **Enrichment** [OS15, ST23, SL09b]. **Ensemble** [AdWR17, GCR16, GC17a, JY21, LTT16, Lee21, LM14b, LM14c, LW19b, NRSD18, PDE⁺17, PMSI21, Rei13, UWY⁺15, YDK22, dWPR20]. **Ensembles** [AM04, YDK22]. **Entangled** [CL21]. **Entries** [ADL⁺12, ADLR15, CXY10]. **Entropic** [CFY18, TWK18, TGPK23]. **Entropy** [AHT12, ADM⁺15, BI09, BDMFSL04, CDC19, DGS08, FR10, PCFN16, Pup03, RSD⁺20, Sch19, WE13, WS20, Wu21, YWL21, ZWH⁺14]. **Entropy-Based** [AHT12]. **Entropy-Stable** [RSD⁺20]. **Entry** [BCT07]. **Enumeration** [AHJS01]. **Environment** [ADL⁺12, BS98, HBB⁺16, LCBD07]. **Environmental** [SBMR18]. **Epistemic** [LX12, LQX14]. **Epitaxial** [BHV05, JILGZ20, LL11]. **Epitaxy** [QZT11]. **Equal** [RMD08]. **Equality** [BDKR21, BMPS22, EFOS20a, GHN01, HD15, wLxY00]. **Equality-Constrained** [BDKR21, EFOS20a, HD15]. **Equation** [AAAH⁺19, AB16a, ABMR11, ADKM03, APS12, ALLK15, ABR17, ADGM98, ABIGG16, AB08b, AL99a, ABL20a, ATV07, AP12, AHV18, AGR20b, ABI00, AT23, BBP13, Ban10, BBHJ21, Bar12b, BPB07, BLS14, BLM22, BT97, BCM11, BGS09, BKKM22, BVV08, BV00, BK18, BP13b, BIA99, BTT13, BLM03, Bru15, BH23, BW09, BSS21, Bur97, BHL22, CG18, CCF14, CI19, CGK⁺98, CKS01, CL10, CFY18, CL22, CW22, CCG14a, CP03a, CP05, CP07, CZ10, CD13, CH08a, CDH98, Cha18, CF23, CLAT10, CD15b, CWX15, CCC18, CMZ19, CYDK21, CZ22, CS23, CIZ18, CGP22, CJ95, CGP19, CDZ22, DKDH20, DMMO05, DJT08, DLY16, DHJW08, DL19, DKKP14, DHM22, DKO12, Du11, DHZZ18, DP16, DKM14b, DV20, EL18, EL19, EHY21, EBR00, EMNS20, FF05, FJ99, FL04, FMP06, FHL13]. **Equation** [Fro12, FJP⁺11, FKW13, GCS19, GS98a, GMN02, GZ16, GHR19, GL22a, GR17, GAD⁺21, GMO14, GK98, GV98, GK05, GHR12, GHR13, GN22b, GD03, GL10, GX16b, HG98, HHT03, HHE10, HP14, HTMM15, HT13b, HHSW11, HRT03, HIT19, HJ18c, Hen05a, HSZ12, HX21, HCX22, HC98, HHSY22, HR99c, HW09, HV07, Jah10, JVG12, JLY08, JS10, JW13, KMW15, KA95, KMS15, KKF11, KS19, KL13a, KLZ22, KP10, KWG⁺20, KBG18, KL13b, KSW20, KRT21, KP05, KP06b, KS14, KO13, Lar99, LMM18, LMMR00, Lee10b, Lee10a, Lee12, LS22, LM05b, LJ19, LCD18, LZZ18, LWW20, ILTZ21, LB15, LY98,

LXK08, LX16a, LY16, LY18, LYZ23, LZ04, LX16b, LXYZ23, Luo19, MBKR22, MGG19, MRS04, MG11, MNBK10, MW03, McL12, MST15, MR01, MV06, MW16, MCV17, Nas09, NAS13, NMS06, NN19, OL98].

Equation [PWM22, PDH09, PR01, PTT20a, PMR16, Pet01, Pic10, PQR20, PC21, PV15, PBtTB⁺15, QS14, QZZ19, RBH06, RU01, RK07, ST16a, SBP04, Sch05, SKN19, SAB14, Sto21, Str94, Str00b, SD11, SSN19, TY08, TWZ21, VMG09, VB07, WXK04, WGT14, WY19, WZC19, WP19, WC22, WiOH08, WMOZ22, WH13, XKWY08, XS08, XSWG23, XZ23, YMW07, YTLI11, Yan22, YJXZ22, ZLLT13, ZLLT15, ZNZ16, ZND18, Zha96, ZD09, ZJC12, ZXY21, ZW03, ZzSpH14, Zhe07, ZLTA15, ZHDZ17, dCFC20, BDP96, CDH97, Elt96, JS93, Lie93].

Equation-Free [MBKR22]. **Equations** [ARMNW10, AH18, AC08, ACVZ12, AVZ13, AdS22, Abg09, APZ13, AHZ17, AGH⁺20, ACHZ21, AB19, AD21, ABD⁺17, ALI19, AJS22, AFK15, AOR18, AFOQ19, AOS20, ABN21, AM17, ACL09, ALJ99, AW15, And16, ANP00, ACN19, ABK11, ACD95, ADK⁺98, AA02, AS94, AC95, ADM10, ACCP13, BS08, BBSV10, BHN07, BGL08, BLH02, BP97a, BT06, BYK05, BJNN02, BOB⁺19, BK98, BK99, BH00b, BJM03, BWV15, BGN07, BGN08, BN00, BBH18, Bea20, BLB00, BDK⁺20, BG98, BM01a, BSS09, BBKS20, BKK⁺21, BL07a, BW11, BC09a, BS15a, BCC20, BHK14, BM08, Ber95b, BPS14b, BS16b, BCF12, BK10, BP12, BCM05, BGH⁺03, BHST08, BCM15a, BFS16, BKMRB21, BK18, BMSV97, BPR13, BS15b, BV09, BHT11, BBC07, BHMx18, BJP⁺22, BMV05, Bre17, BC99, BCCX21, BJ08, BSU19, BL03c]. **Equations** [BL05, BHW99, BOPGF06, BT16, Bur13, Bur14, BEPW98, BB02, BLL07, BHK12, BDW11, CGGGS15, CCFP12, CC16, CLMM00b, CLW13, CH09a, CG95, CB98, CLPS03, CP04, CZK15a, CZK15b, CZZK16,

CCG14a, CFR05, CHL20, CK17, CBG12, CM09, CCKP21, CCA03, CNP12, CV12, CV15, CCM08, CGK13, CDF18a, CK15, CCJ07, CCL⁺20, CRS21, CFGLT22, CWZ07, CHMR10, CM15, CJGX15, CK19, CSZZ20, CB22, CHWY23, CLST03, CGM00a, CVK13, CW06, Chr09, CLTX15, CCV14, CGP22, Coa12, CKK03, CG07, CV16, CCG14b, CGI11, CML⁺18a, CML⁺18b, CRV14, CRV13, CH11, CHL16a, CHL16b, DHS22, DEN21, DB98, DD13, DG98, DDGS16, DL20a, DLTZ05, DL19, DG09, DP10, DPS18, DYZC22, DT03, DAE02, DGGG09, DS17, DKK21, DKS23, DMSC18, DP03, DF99, DHO12, DHE13, DW15b, DL22].

Equations

[DTYY18, DCL⁺21, DY23, DGvdZ18, EPR10, EKSW15, EAOS21, EDGL12, Elm98, Elm99, Elm00, EEO01, EHS⁺07, EF15, ELtHR00, EOZ94, EM99, EIL01, FKQS17, Fan22, FS01, FBF15, FMW19, FGM08, FR15, Fis19, FM11, FSvdV98a, FJHM19, FGH⁺08, GJ08, GLR23, GW15, GS16, GK00, GASSS98, Gar97, GNOR14, GK03, GLT18, GLMN15, GN19, GRL10, GHST98, GW98, GXY15, GB98, GT06, GV16, Gra14, GK98, GMS18, GPS95, GXZ21, GN22a, GM15b, GNPT18, GdLP⁺18, GM19b, GRPK19, GW00, GZ19, GC16b, GC17b, GLW18, GS97, HG02, HO18, HHS⁺16, HW13, HSB20, HS05b, HL09, HZXC16, HKL⁺22, HHZ22, HNS08, HSS08, HJ98, Hel11, HJ18c, HRT13, HP20, Hen06, Her08, Hes98, HS99b, HLM⁺09, HLS98, HO94, HO96b, HBS00, HWZ19, HH11, HVW95, HV95, HRS19, HDF⁺19, HS99c, HTB⁺05].

Equations

[HHL07, HY14, HJX15, HZ16, HL17, HG00, HV04, HW09, HXB11, HXB13, HYC15, HYC16, HS21, HLL⁺22, HJX23, HK02, HPS22, IM99, ISG15, ILK05, JBH20, JL03, JR19, JW08, JJK23, JL11, Jia14, JP00, JX13, Jin99, JCL07, JLZ16b, JLZ17, JLP18, JK05, JP08, JL05b, JK00, JZ00, KV20b, KKK16,

KK18, KM11, KNN12, KGM⁺11, KM97, KK13, KS99, KLW02, KL05, KGGs10, KKN21, KPS19a, KZK17, KRR23, KZP20, KKS21, KS20, Kla98a, Kla99, KLR15, KR11, KPS19b, KLS08, KCB17, KOV15, KMR19, Kue12, KW15, KW10b, KQW04, KMRW97, KL00a, KNP01, KP09b, KLLM22, Kus97, KR12b, Kus00, Kye12, LFM22, LW12a, LS12a, LS99, LL17, LFH19, LCH09, LL22, LSTY21, LLD99, LU17, LV20, LLP98, Lay03, LL03a, Lee09, LMW15a, LE17, LLS13, LSW17, LM08, LM12, LNSZ06, LN05].

Equations [LPR98, LHL11, LLX15, LZ17b, LJ17, LWZ17, LSC18, LNz19a, LNz19b, LYZ20, LZ20, LM21, LZ13a, LT00, LLL08, ILN21, LW03, LSZ11, LPS13, LY14, LGW19, LXdH20, Liu20, LGCL21, LB06, Liv15, LFLS08, LCJ96, LCH99, LN04, LS23, Lu95, LCR20, Lui01, LXL11, LC23, LX16c, MPS18, MR09, MN07, MRI21, MGB18, Mal07, MMM⁺94, MK00, Mar09, MB00, MMR19, MSW05, MPRW98, MPW18, McL95, MKW23, MK08, MT96, MP08, MT99, MT97b, MT06, Mis01, MSS12, MRKS21, MB19, MN11, MS18a, MS07e, Mor23, MWY17, MZ19, MYZ21, MV06, MSV00, MTBT17, NKLW94, NZGK21, NT18, NS19, NV98, NFFP18, NBA⁺14, NSK10, Not12, Not17, Ökt05, OR02, OKD16, OKGG⁺23, PS18, PKNS14, PNW16, PJZ23, PS10a, PCFN16, PS19a, PL12, PL21, Pen00, PATF19, PT01, PP08b, PRR05].

Equations [PRM97, PSC18, PvdVvG17, PBV18, PP12b, PELY13, PS12, PSS17, Pul08, Pup99, QFW22, RMR15, Rah96, RPK18, RAB⁺14, RSD⁺20, RT01, RL10, RX17, RW11, RMB00, RC06, RG09, RW22, RNR16, Rim18, RW01, RtTBAI21, RW06, RWX07, RSA05, RD21, SMZ18, Sar98, Sch98, SV08a, SSW18, ST16b, SE11, SE13, SWN20, SY12, SWX16, SY09, SM94, SWT00, hSSW23, Sim07, SB05, SZP19, ST23, SvG08, SV11, Sta94, SMN10, ST98, SL22, SSH06, TLN14, TLLK09, TW05, TSX17, TYZ19, TC12, TSK09, TM14, TC99, Tor05, TTK16, TS14, VS04, Vil14, VS03, Wab05, WT23, WC03, WDE⁺99, WL01, Wan07a, WL08, WWY09, WWY11, WMC12, WB12, WRSZ18, WHL18, WYT18, WMHK19, WWM03, WGS17, WJS23, WE06, WvdZsvB18, WS20, WL20, WZ21b, WX21, XZB11, XQX15, XK02, XH05, XT06, Xu94].

Equations [Xu99, Xu04, XZ10, YCZ13, YJ13, YDF97, YCC10, YZK20, Yan14, Yan18, YHL19, YR12, YCY19, YLF23, YCS16, ZN16, ZK14a, ZCZK14, ZZK15, ZMK17, ZTBK18, ZS03, ZV05, ZCW10, ZCL⁺11, ZLS12, ZRTK12, ZTRK14, ZFLB15, ZFwCW15, ZZ18, ZCP06, ZFZ14, ZCQQ21, ZHL21, ZS02, ZFHS15, ZTM⁺16, ZPE12, ZKV99, Zyg11, bZOW07, iW11, AGC96, ABS96, ABCM97, ABCR93, Atk94, AO93, BZ96, Ber97, Bia94, Bøe93, CC97, DS95a, EOD93, ES96, Ena97, ED95, Gre93, HHRV93, HG96, Hes97, LK93, Lam97, LV94, LCW95, LSM93, MT97a, MS93a, MCJN94, MP94, PSB⁺06, PM95, She94, She95, SS95, WAS94].

Equatorial [Mar09]. **equidistant** [bZOW07]. **Equidistributed** [BKS98].

Equidistribution [Che94, CF97].

Equilibria [AEMM16, AHJS01, HBJ04, Kue12, LCJ⁺20].

Equilibrium [AAB⁺15a, CHL16a, PP05, TW96, WY19].

Equipped [RPSS22]. **Equispaced** [CCFG23]. **Equivalence** [Doh21, FKTW10, TSX17, WB99].

Equivalent [DH01, SCC17]. **Equivariant** [Tau96]. **Erasure** [ZGG17]. **Ergodic** [Vil15].

Ericksen [CGGGs15]. **Erratum** [BEM94, CDW14b, FGMP14a, FS13, Hri05, LB08].

Error [ABF99, AV14, AdVC00, Ain07, AD21, ABR17, AOR18, AOS20, AKMRB22, ASZ07, ATK12, ADLW19, BR02, BGGM22, Ber95b, BPS14b, BSX22, BS23a, BHL⁺20, BCM11, BP13b, BBT11, Bre99, BDW11, Cab94, CKOR16, CDKL22, CP04, Cao07, CGAD95, CF00, CP03a, CK03, CP07,

CWC08, CJ09, CRS21, Che94, CV94, Cho05, CCH15, CHM21, CWG10, CHH01, CE16, CPB19, DEM⁺20, Ded10, DP09, DFH⁺19, DOKM22, DEV16, DG16, DKW19, ELW20, EHW00, EMT09, FHL⁺23, FL02, GCS19, GLS08, GPW22, GGL07, GSS00, GSS22, GXZ21, HHS⁺16, Har08, HHW00, HM19a, HM19b, HM20a, HL98, Hof04, HR99b, HM20c, HWZ21, JSV10, KKP14, KLS⁺15, Kas95, KS99, KW10a, Kul12, KW15, LV07, LU17, LZZ18, Liu96, LK21, LPP09, LX16c, MBT21, MW22, Meu11, MNZ15, Nor07]. **Error** [OS15, OC03, OC05, PS02, PDH09, Pic03, Pic10, PS10b, Rad16, RKLM18, RL13, San10, Sch03, SZP19, SKJ⁺13, SSF16, TE07, TBM21, TO15, TP99, TBO10, WC03, WWY11, WRSZ18, WLLZ18, WCL⁺21, Wei94, WW10, Wic17, WSH14, WvdZSvB18, YFS21, Yan18, ZCK12, ZFLB15, Zha20, ZHS10, dLRT09, vLHH21, vdZvBdB10a, vdZvBdB10b, DG95]. **Error-Bounded** [DOKM22]. **Error-minimizing** [Wei94]. **Error-Oriented** [Wic17]. **Errors** [ACY⁺20, GK11a, G GK⁺04a, GMO14, GKRB16, GPS12, Hei13, HW99, LHR⁺18, Men94, RW97, Rub12, SX16a, Zim20, ten95, AGC96, SS93b]. **Errors-In-Variables** [ten95]. **Escape** [GDLS14]. **eSIF** [Xia21]. **Essential** [Sch09]. **Essentially** [CCJ21, CFR05, HKYY16, LLS22c, QS05a, QS08b, ZLS12, ZQ18]. **Estimate** [BR02, CPP⁺17, GJS19, KLS⁺15, Str93, Wat98]. **Estimates** [AOS20, AL07, BP13b, Bre99, CDH98, CF23, CAB04, DEV16, ELW20, GXZ21, GSV18, HHS⁺16, HZ11, HR99b, HM20c, HWZ21, JSV10, KL15, KL94, LD03, Meu11, PDH09, TBO10, WCL⁺21, WW03, ZCK12, ZHS10]. **Estimating** [AMHR13, CCPS20, GSO17, HSB12, HR14, HR16, KK16, Lei93, MW11, PVV11, SLO13]. **Estimation** [AK15, ABF99, Ain07, ALLK15, ABR17, AOR18, ATK12, AM05, BP97a, BG10, BF13, BCJ⁺21, BPS14b, BSX22, BS23a, Bla03, BESS19, BBT11, BM00, CP04, CBG⁺19, CCH15, CPB19, Ded10, DKW19, EHW00, EMT09, ES00, FB95, FKRH22, FR19, GLM22, GCB04, GM00a, GSS22, GK13, Har08, HCRT13, Hei13, Hof04, HTH⁺16, JKLZ18, JBL18, KH14, KR17, KS99, KLR98, KHU96, KHKL16, LV07, LX08, LM17, Liu96, MT19a, MS07d, Men22, MDG⁺18, Ng94, NRSD18, PHA18, PWG16, PCL⁺16, PS10b, RKLM18, RW13, RTH17, SPKB13, SW01, SXXN22, SSR⁺22, TP18, TE07, TO15, TTY16, TP99, WLP020, WWY11, WE13, WLLZ18, Win06, WSH14, WvdZSvB18, YR12, YSS07, ZBFN17, ZFLB15, ZTM⁺16, ZW16, vdZvBdB10a, vdZvBdB10b, Liu93]. **Estimator** [Che16, LPP09, Pic03, Pic10, Sch03, SSF16, WW22, WW10, WP20, HW99]. **Estimators** [CPG20, Rad16, Red99, SZP19, TV98a]. **Euclidean** [ACCO00, EAA21]. **Euler** [ABCM97, BQRX22, CBG12, CCM08, CDF18a, CK15, CGP22, CPR11, DDGS16, DLV17, DT03, EOD93, Ena97, GNPT18, HG02, Her08, KLS⁺15, KPS19b, KQW04, LK93, LLD99, LW03, LJL98, LSM93, MV06, NBA⁺14, RSD⁺20, SMN10, TKK16, TV93, WX21, Xu99, YC14, YLF23]. **Eulerian** [AHH12, AHR12, BCM15a, CQ22, GH18, Gra14, GPSY17, HL19, ISS19, KMER22, NSK10, SZZ21, WLE⁺00, WZET13, WT16, YWL17]. **Eulerian-Type** [ISS19]. **European** [AO07, FO08, OGO13, OGO16, Toi08]. **Evaluate** [BS98, Bar00, HS99a, PRM09]. **Evaluating** [DP07, Li10, MT23, OR18, Yun03]. **Evaluation** [AO07, Bar14, BWV15, BN98b, BKT21, BER17, BV98, CKK20, CBN02, CBS00, DP09, Far01, FM12, GJM94, GPK04, G GK04b, GBS19, HKF⁺13, In99, JLZ16a, JF16, Kea97, KKLS05, KLST06, KS07, KW11, LS12b, LHN96, LG09, LX14, MAK20, Nit99, OSU10, OW98, RMC12,

RV22, Ros06a, SNB16, YH17, YH19, ZV22, aKT18, BS94, SS93a]. **Evaluations** [Bot23, KHRvBW14, TZ14, TEE⁺17]. **Event** [GL15, Kof04, LLZ15, WLPU20]. **Every** [Fer98]. **Evolution** [AF22, And16, BEG⁺08, BGN07, BGN08, BGK15, CGKM16, Coa12, DHO12, EOZ94, Fis19, GN22a, HLNS19, JTZ08, JLZ17, KM97, KLS08, Kup00, LPS13, LFLS08, LMMW04, McL12, MK96, MRSS14, NS19, RS00, SL11, ZFLB15]. **Evolutionary** [ABN21, CDGT01, DCB22, DKZ09, DLZ10, ILN21, MPW18]. **Evolving** [CM09, CW16c, MRI21, NNH99, OX17, RD21, TN16]. **EVSL** [LXES19]. **Ewald** [JLXZ21]. **Exact** [BHNPR07, BLP14, BBR08, CFSZ08, DMR17, DN97, EFOS20a, EFOS20b, Fli13, HM20c, JP08, NHSS13, NMS06, Oli01, PDH09, PV08, PEC⁺14, Saa03, SBP04, SWU16, Str93, VS03, WMUZ13, YWG21, Yan18, ZH09, HLS93]. **Example** [CST16]. **Examples** [DKSW19, MT99, GM96]. **Exascale** [MRL⁺17]. **Exchanger** [VP14]. **Excitation** [CVK13]. **Excitations** [TXZZ22]. **Execution** [MZW09]. **Exercise** [LFBO08]. **Existence** [FLM⁺05, Gär09, Zyg11]. **Exit** [BP06, GDLS14, KTSB19]. **Expansion** [Bur97, CJGX15, DLY14, FUNB18, FMS17, GTK⁺17, MMS23, OC03, OC05, PDA09, RZ03, RO12, ZRTK12, aKT18]. **Expansions** [BBKK97, BDW11, CJ05b, CML⁺18b, FO08, FEL18, GI17, JNZ17, JK10, Kei09, RT05, Rub12, RN14, ST22a, SM15, TW09, Nat95, Nat97]. **Expectation** [LR10]. **Expectations** [ML11]. **experience** [Car93]. **experiment** [Ber97]. **Experimental** [AC22, BFI07, EHS19, GHKF22, HHP21, HHP22, LPSB17, RCC18, TBKF14, WCG23, BL03a]. **Experiments** [ABH03, APSG14, APSG16, AS18, ALM22, Ban10, BBC⁺01, BG12, CGP12, CGDD11, DTT⁺16, GMT98, HRV11, vdHCDD15, Kor93]. **Explainable** [BPS22]. **Explanation** [AS21]. **Explicit** [AVZ13, AdS22, AT20, ADP20, AV21, AAIH98, BPR13, BQR18, BB09, BK11, BHL22, CHAMR06, CZZK16, CR21, CS10b, CS10c, DW98, DG09, DMD⁺12, EJL03, FGS14, GKC13, GLQ18, GMM15, HS05a, HCRT13, JLP18, KCB17, KW10a, Lay06, LW22a, LL20, LD05, LMSSS97, MO00, NP17, ODN17, PKD13, RSD⁺20, SKWK18, SS93a, VS04, WL01, ZS02, Ena97, LK93, ZSB16, EG22]. **Explicit-Implicit** [ZS02]. **Explicitly** [DCP11, EPE05, Isa20]. **Exploiting** [AKA13b, ALM19, ABB⁺16, EL93, GRT05, HP21, MDC08, SLvdGK14, SBS98, SW03, SvG10a, VDD19, Wan12, ZMS21]. **Exploits** [HM19b]. **exploratory** [Sun93]. **Exploring** [ES18a]. **Explosive** [BBH⁺16]. **Exponent** [LCE22]. **Exponential** [AMVR17, AMH11, BDZ13, BMaK19, Bar12b, BM17b, BN13, BGH13, Bot23, Buv20, Buv21, CL22, COR13, CKOR16, CHKsL20, DLP05, FMYT16, HKYY16, HLS98, Hok17, HWZ19, HJX23, JL03, JL05a, KCB17, KBG18, LPS10, LW16, LYZ20, LL20, LT14, LCR22, MHW22, PS19a, RV22, RX18, SIDR15, SL09a, TLT12, YH19, vdEH05, OS95]. **Exponential-Polynomial** [RV22]. **Exponentially** [BB10, Lan10]. **Exponentials** [PPT11]. **Exponentiating** [Lee13a]. **Exponents** [BHW99, YWL17]. **Exposing** [BDO12, YS16]. **Expression** [IHTR12]. **Extended** [AKPRB08, BPS13a, BT21, DU19, DL23, DSS20, GH15a, GS19, HTW⁺12, HJKK22, KK16, PCD17, SPKB13, Ser06, Yun03]. **Extending** [BBH⁺16, LS20]. **Extensible** [HHLL00, KMA⁺12]. **Extension** [AG21, AP14, AT19, ACN19, BT04, Beu05, BHL22, GN22b, KO13, Pip13, RSA05, TT13, WJMT15]. **Extensional** [KP10]. **Extensions** [Cho09, CS12, DG16, DLP⁺21, FFS07, MH16, Nie06, XAW17]. **Exterior** [HHT03, KL13a, LY22, NHSS13, PTT20b, TET10]. **External** [DL20a, Tsy99, Tsy97].

Extraction [DEM⁺20, DHM22, DTV13, LLWxY20, MS07c]. **Extrapolated** [AL19, CS10b]. **Extrapolation** [ALZ14, BG20, BPR16, GSS12, HL09, HW09, JR96, JR98, KKR21, MMZ03, WTG12, WI12b, XKZ95, Ber97]. **Extrema** [KV96]. **Extremal** [De 12b, Zha96].

Extreme

[AAAH⁺19, AHJS01, BMP16, BBP21, DDF21a, rFS12, FH21, SR18, hSSW23].

Extreme-Scale [FH21, SR18]. **Extremely** [KLR15]. **Extremes** [Gri19]. **Extremum** [WI12a]. **Extruded** [TPT⁺16].

FA [IJ08]. **FA-SART** [IJ08]. **Faceted**

[RS00]. **Facing** [GM11]. **Factor** [GG94, GG95, LLJF21, WZSL12]. **Factored** [BK07, BBFJ16, BCFJ19, BT99, JFG15, KG18, SS93b]. **Factoring** [BH14b].

Factorizable [DT03]. **Factorization**

[ABLM17, ACD18, AVW13, BQQ08, BS99a, BSvD99, BCY21, BMMM08, But13, BHK20, CD19, CPV95, CLB21, CP15a, CIZ16, CL08, CKLN98, CGI11, CST⁺13, DW05a, FMRR13, FCF19, FKN⁺20, GDL07, GBDD10, GCD18, GE96, GG10, HS06c, HM19b, HRS10, HSTH18, IL16, JF16, KP11, KSW20, LY17, LXdH20, LXG⁺21, LGCL21, MSL13, MOHvdG17, May08, PHY20, PSLG14, PT08, QOSB98, RT10, RS99, SKO21, ST14a, ST14b, ST16b, SE16, SF08, Sun96, VM13, WGB97, WZSL12, Xia13, YTD15, ZJX14, CMV97, FGM95, MH95, Nag93, NP93a, PS93, Rag95, RG94, Rot96, SS93b].

Factorizations [AAB⁺16, DGHL12, LM99, MOKS12, Man95, MV16, MM95, MM98, MMN00, Sco17, Sch93]. **Factorized**

[BT00a, KKS13, KRT16, LNC05]. **Factors**

[Bol03, DO15, WWJ12]. **Failure** [GTK⁺17, GYZ23, LX12, LX14, LLZ15].

Failure-Informed [GYZ23]. **Fairly** [BK06].

Faithful [ROO08a, ROO08b]. **Family**

[CWC08, DGLL21, EG18, Mu95, Sei95, SZS97, SvG08, Tal15, Ton94]. **Far**

[CRV14, JL19, LS09]. **Fast**

[AdVC00, ABMR11, APSG16, ABIGG16, AT19, ABL20a, Ant22, ACD95, AKM⁺14a, ALZ14, ABB⁺04, AVW13, AIV98, AO93, BGL08, BZ10, BCR11, BMR10, BK98, BK99, BS05b, BOR97, BMaK19, Bar99, BR02, BN98b, BLB00, BACF08, BPT⁺14, BC02, BKH⁺22, Bit99, BB15c, BHM20, BD99a, BIA99, Bru15, CI19, CCY23, CD19, CDY07a, CDGS05, CV12, CCER12, CN93, CT94, CC08, CPG20, CWA14, CBN02, CCFG23, Cho01, CG10, CRT11, CX08, CRR18, CPD17, CGF21, DBC13, DD12, DFN12, DKGS15, DN97, DKO12, DKS19, DW15b, DKS21b, DR93b, EB96, ES96, EE14, EOZ94, EY07, EG01, FB21, FGMP13, FGMP14a, FGMP14b, Fis19, FWA⁺11, FSV22, FM99, FJP⁺11, FKW13, GHHH17, GH18, GW17, GR02, GV13, GLR07, GLQ16, GAD⁺21, Goe97, GY09, GHST98, GK05, GD07, GLN09, GrM10, HA01]. **Fast** [HT13a, HT14b, HO18, HJ07, Hel11, HG12, HA17, Hog13, HEGH14, HJJ22, HCX22, HR98b, HHSY22, HG00, Inv02, ISS06, JW08, JF16, JM18, JP11, KXH21, KK98, KV12a, KBK⁺08, KRR23, KP11, KBG23, KLZ⁺06, KW11, KW18, Kup98, KGT07, Lab05, LAG14, LQ19, LV20, LS94, LG97, LMPQ03, LCA08, LFB13, LCD14, Li10, LLX15, LZZ18, LYL⁺11, Lin16, LXdH20, LYLC21, LB12, LFLS08, LFBO08, LWK⁺16, LS02, Luo19, Lyo11, MG07, MG09, MG11, MBGV16, MMS23, MR07, MMR19, MSW05, MH16, McL12, MT23, Nag93, NAS13, NP96, NCT99, NL99, OAA20, OSU10, PNW16, PS13, PS11b, PRR05, PP13, PS03, PD15, PCD17, PT08, RO15a, RRR03, RRR05, RPSS22, RG20, RT05, RT99, Rum09, RS16, SKMF15, ST16a, SLFL06, Sch94, SC03, SWX16, SV00, SvG08, SKPD22]. **Fast** [SKP22, SVG10b, DFK23, Str94, SZW20, TW09, TN16, TZ18, TWK18, VGOR20, WO09, WB12, WG18, WZC19, WMOZ22, WYGZ10, XLS18, XH15, XJBS12, XC20,

XAW17, Yan19, YVB98, ZLBC03, ZNZ16, ZCL⁺11, vdSF21, ABCR93, BS94, MMM⁺95, MMMY96, Sch96, CRMC12, CD13, EMT99, LLS22b, RAT18, ZK14c]. **Fast-Hybrid** [ABL20a]. **Fast-marching** [TN16]. **Fast-Multipole** [EG01]. **Fast-wave** [RS16]. **Faster** [BM18, LLS22b, WJW21]. **Fatemi** [CCS⁺19, LPP19]. **FATODE** [ZS14]. **Fault** [AG17b, AG17a, HHLS15, SRM⁺15, ZGG17]. **Fault-Oblivious** [ZGG17]. **Faults** [SW15]. **FBSDE** [AAO23]. **FD** [LSW17, DFL20, SWN20]. **FDEs** [AMN15]. **fdf** [PYSG13]. **FDM** [BC06]. **FE** [DFL20]. **FE-FD** [DFL20]. **Feasibility** [DHN17]. **Feast** [KPT16, GPTV15]. **Feature** [DTV13, HA08, HGPM14, NS21, ZCZ04]. **Features** [MRV06]. **Feedback** [BBSW15, BSSW13, KK18, NMWI11, OSS22]. **Fejér** [XH15]. **Fekete** [GNYZ18, PZPR07]. **FELICITY** [Wal18]. **FEM** [AFOQ19, BC06, BF22b, BHK12, CF00, GM17, GH02, Sch03]. **FEM/FDM** [BC06]. **FEMs** [LWZ17]. **FENE** [KP10]. **Fermi** [Rub12]. **Ferrohydrodynamics** [ZHY21, dZHY23]. **FETI** [HKLW21, HPS22, KL06, KL10, KR06, KLR14, KKR16, KLRU17, RT01, Ste01]. **FETI-DP** [HKLW21, KL06]. **Few** [BBP21, GSR19, GHS⁺09]. **Feynman** [DYZC22]. **FFT** [GMSB16, LFBO08, ZZ18]. **FFT-Based** [LFBO08, ZZ18]. **FFTs** [MK93, Pel93]. **FFTW** [Pip13]. **FGMRES** [GNL21]. **Fibers** [WiOH08]. **Fictitious** [BRT07, BCCK16, BKFG19, For06, HRT03]. **Fidelity** [CC11, NKM10, TAY⁺19]. **Fiedler** [CQZ17, KT15]. **Field** [ABL20a, And17, ATV07, BBKT15, BCM15b, BFSN08, CS94, CCC17, CCL⁺20, CL03, CCCZ10, CS18b, CRV14, CGF21, DZ08, FTY15, GHMY18, GHHK15, GZYW18, GZW18, GV16, GX16b, GrM10, HSZ12, HKC⁺04, HJP04, Hri03, Hri05, JL19, JSCB20, JW13, KS17, LL22, LTT16, LB15, LY13, LS09, LK15, LL20, LW20a, LXL11, MM14, MKWG15, PvdVvG17, PV15, RAB⁺14, RWWK15, SY10a, SY14, SXL⁺22, TYZ19, TK13, WW22, WPL⁺13, WYT18, WMUZ13, Wic17, YY18, Yan21, BGPS21]. **Field-Effect** [HJP04]. **Field-Split** [LK15]. **Fields** [ABB09, BF16, BG20, CPH14, DHP17, DW15a, EAA21, GMS21, GS14, HR98b, JKL22, KZ16, OVV17]. **Fifth** [WDGK20]. **Fifth-Order** [WDGK20]. **Fill** [ÇAK11, Oli01]. **Fill-In** [Oli01]. **Fill-Reducing** [ÇAK11]. **Filled** [ODN17]. **Filling** [BH16, GST23, GMPZ06]. **Film** [ZWWZ21]. **Filter** [BM17a, FL08, GC17a, LM14b, NRSD18, PMSI21, YSK19]. **Filter-Trust-Region** [YSK19]. **Filtered** [BFS16, rFS12, LLWxY20, NN19, XMRI18]. **Filtering** [DSRMK17, GCR16, Har11, KXS18, KXH21, KMW99, KK16, LTT16, LXV⁺16, LKBJ18, NMS06, PR22, PR23, TO15, ZKN21, ZTK19, vSRV11, NP96]. **Filters** [AdWR17, AT15, CCO11, KBD21, MKRK13, NP17, RKLN07, XS16]. **FIM** [HJJ22]. **Fin** [MR04]. **Finance** [MSW05, WS05, WS06, Wan07b, Wan12, ZWH21]. **Financial** [HW14b, KKS08, Mar01, RO12]. **Find** [Goe94]. **Finding** [CGS02, CK98, CP95, FBF15, LZ01, LZ02, Liv08, Saa03, XYZ12, YZ05, YZZ19, ZDZ16]. **Fine** [BDO12, But13, CP15a]. **Fine-Grained** [BDO12, But13, CP15a]. **Finite** [AE08, ABF99, AV14, ACHZ21, Ain07, AAD11, Ain14, AG18, AJ21, AJ22a, ABHS22, AHN⁺20, AFS19, ABN21, AORW20, ADK⁺98, AGL13, AS05, AD06, ACK19, BB13, BH14a, BMV18, BMNV20, BMNV21, BCAG22, Ban08a, BJNN02, BOB⁺19, BHV05, BL23a, BB10, BBB14, BBGS04, BDM⁺18, BS16a, BOF16, BRT07, BCLT15, BMF19, BSS09, BMM98, BBKT15, BC09a, BP13a, BPS13a, BLY21, BSX22, BS23a, BCF12, BYL13, BV19, BP13b, BJP⁺22, BKMM10, Bre96, BHW99, BRBT12, Bur13, Bur14, BCM15b, Bur23,

BG13, BDPR22, CGGGS15, CCJ21, CH09a, CGQ10, CG99, CPV95, CM98a, CM98b, CCKP21, CSW99, CK03, CGP12, CLP08, CZ10, CDK19, CHKM13, CW18, CK15, CFKM18, COS21, CD02, Che05, CCCZ10, CMZ19, CLTX15, CFJT18, CGX21, CF05, CG07, CFM96, CDPC13]. **Finite** [CGP19, CHH01, CVE13, CH11, CSW14, DY06, Dar21, DMMO04, DMMO05, DG98, DLTZ05, DRFNP07, DFN12, DKR12, DFJS19, DHP17, DGLW16, DMSC18, DEP11, DZ08, DW15b, DTY18, DMZ21, DGvdZ18, Egg18, EAOS21, ES17, EHW00, EIL01, Fai03, FVV21, FV06, FHFR13, FGM08, FO19, FM11, FKTW10, FS02, FCM12, FL08, FCF19, FEM08, FL19, GCD21, GJ08, GYZ11, GW15, GHMY18, GBS⁺22, Gas13, GK18, Gee19, GL08, GHST98, GKT09, Gra14, GLC21, GJ07, GPSY17, GdLP⁺18, GC97, GLW18, HA01, HHS⁺16, HHLZ21, HH02, HL09, HZXC16, HR99a, HPS08, HZ11, HTW⁺12, HY08, HJP03, HXX18, Hor10, HQH⁺16, HS01a, HS18, HY10, HK95, HS99c, HZZ20, HLY13, HJX23, HSSZ09, Hun95, Hun96, ISG15, ILK05, IT09b, ISS19, JV96, JK11, JHJ12, JKL22, Jia14, JSZ13, JX13, JK05, JGZ06, JR96, JZ00]. **Finite** [KLV⁺16, KV20b, KV20a, KP09a, Kan03a, KL05, KMS15, KKLS05, KLST06, KS07, Kir14, KKS21, KO17, KP12b, KPS19b, KLY05, KLY07, KP22, KW16, KZ16, KKK18, KS14, KW10b, KTSB19, Kup00, Kwa99, Kye12, Ld12, LW12a, LO11, LP11, LP13, LZ21a, LSTY21, LP96, LLP98, LMR98, LMM18, Le 01, Le 05, LRP07, LP08, LDS11, Lee14, LNP15, LPP19, LPMR19, LSW17, LMM17, LOL13, LO14, Lem16, LHL11, LNz19a, LNz19b, LZ21b, LSY21, LSV13, LSZ11, LTW18, LP03, LKvBW10, Lu95, LGR20, LMMW04, LK98, MMZ03, MRI21, MH17, MM14, MRT00, MLL13, MC10, MB13, MBM⁺16, MCB18, MT09, Mic01, MTTV98, Min02, MSS12, MR18, MS12, Moo00, MS18a, MAK20, MWY17, Mu20, MYZ21, MGH21, MSV00, NN14, NN03, NNRW09, NV98, Nie16, NSK10, Not00b, ORST12, OX17, OQRY18, OL98]. **Finite** [OSS22, OSCE00, OKGG⁺23, PRS12, PDTVM08, PP12a, PKD23, PHW19, PL06, PSKG13, PMH⁺16, Pet01, Pic10, PPRS19, PvdVvG17, PWGW12, PRSS11, PKA22, PC98, QZZ14, QS03, QS08b, RMR15, RL18, RW21, RU01, RW01, RKL09, RDP08, RV10, RLC08, RWW14, SMZ18, SB10, SCC17, Sar98, SJR09, Sch02, SV08a, SL09a, SZ06, SXL⁺22, SYY09, SY18, SXXN22, SC02, SSF16, SK23, Sta00, Ste01, Str99, SL09b, Tal15, TB99a, TX17, TBH23, Tie18, TLH21, Tor05, Tou22, Ull10, VP10, WS07, Wal18, WLE⁺00, Wan01, Wan04, WWY09, WB12, WH15, WDG⁺18, WP19, WDGK20, WGS17, Whi15, WMBT19, WH09, WKM⁺07, XL20, Yam02, YSZ14, YCY19, ZLLT13, ZN05, ZJC12, ZLS12, ZWZ19, ZHY21, ZWP21, dZHY23, ZMS10, ZJB20, ZHS10, ZK96, ZQ18, ZLJ96, Zin00, dVM08, Ain96, CGP93, Elt96, MP94]. **finite** [PSC⁺16]. **Finite-Budget** [SK23]. **Finite-Difference** [ACHZ21, ABHS22, FV06, HZ11, JZ00, KP09a, LP03, Lu95, OSCE00, RU01, SXXN22, WDGK20, ZLJ96, Zin00]. **Finite-Element** [AV14, ACHZ21, CGGGS15, CGQ10, GJ08, HJP03, Le 01, Le 05, LRP07, LP08, LDS11, MTTV98]. **Finite-Time** [LSYY21]. **Finite-Volume** [CCKP21, FEM08, MSV00, ZJC12]. **Firedrake** [LMKG16]. **First** [Abg09, AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, ALMR17, AM05, BFS16, BLM03, BSU19, CLMM00a, CLMM00b, CP03a, CP05, DM13a, DFN12, ELJH20, EHLW20, ECH⁺23, FMM98, HZXC16, HJ18c, HT16, HO94, HO96b, HS01a, HMMS22, LL22, Lan94, LMMR00, LM15, LMM17, LW16, NKLW94, OKF14, PSC18, Sha21a, VC00, WJW21, ZCS22, ZPE12, HO96a]. **First-Kind** [DM13a]. **First-Kind** [NKLW94].

First-Order [AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, ALMR17, BLM03, CLMM00a, CLMM00b, EIJH20, FMM98, HZXC16, HO94, HO96b, HS01a, LL22, LMMR00, LM15, LMM17, Sha21a, WJW21, ZCS22, ZPE12, HMMS22, HO96a]. **First-passage** [HT16]. **First-Principles** [OKF14]. **Fisher** [DGS08, RU01, ZW03]. **FISTA** [WYL⁺22]. **Fitted** [Woo94]. **Fitting** [BLS06, BR14, BFI07, DGB15a, DGB15b, FS12, HW99, Hok17, LZ13b, LQZ22, LS00, NNT13, SL09a, ten95, OS95, FS13]. **Five** [CZ22]. **Five-Equation** [CZ22]. **Fixed** [AIL05, BCK21, CWY17, DBSR17, HV04, KS94, KM05, SW15, Van00, Ver96, ZD19, SS95]. **Fixed-Point** [BCK21, CWY17, Ver96]. **Fixing** [DHHR19, HY08]. **Flames** [HC95, SAY03]. **Flapping** [EKSS16]. **Flat** [ABLM19, FP07, QZZ14]. **Flexible** [CGL⁺12, CGL⁺13, CG19, DTY20, DHZ⁺21, GW17, GGPV10, HZ10, HD15, Not00a, PSFL20, RTH17, SBK13, SSM16, SV01, WO98, Saa93]. **Flexoelectric** [AAB⁺15a]. **Flight** [EKSS16]. **Flights** [CD15b]. **Floating** [And99, CWC08, DH03, DFH⁺19, Drm97, FDH⁺20, HP19, ROO08a, ROO08b, ZYZ05, ZH09, Hig93]. **Floating-Point** [And99, DFH⁺19, FDH⁺20, HP19, ROO08a, ROO08b, ZYZ05, ZH09]. **Floquet** [LZ17a]. **Flow** [AB17, AABM13, AL07, AHR12, AGPR19, AKM14b, ACW21, BM11, BHN10, BD04, BL08a, BGN08, BCT05, BSSW13, Ber98a, BPSV15, BSV19, BGPS21, BV20, BLVZ23, BBKW19, BIK02, BSA13, BEM17, BHR23, BMV13, BKBT18, CLDS19, CL97, CMS17, CP13, ICCVEKV17, CDB13, Cor98, DSW22, Egg18, Ein19, EHY21, EAS08, EMSW12, EdDP09, Fai03, FGO20, FL02, FHR14, FK97, GYZ11, GHTW00, GY09, GZW20, GGS08, GM11, GP96, Har08, HNU23, HHK19, Hei96, HK03, HR99b, HQH⁺16, HB97, HC98, HR99c, Hun95, Hun96, JMN01, JKMM01, JVG12, JY21, JWH08, KGGS10, KSMM18, KP10, KM98, KVMK01, KWD22, KWW13, Kup01, LVWW03, LHL12, LE10, Lay96, LL97, LW22a, LD16, LSM22, LJL98, LYLC17, LTW18, LC21, LH00, LZ04, LRGO17, LCY⁺20, MNRI19, MABO07, MJR05, MRT00, MS06a, MP20b]. **Flow** [MMS05, MZW09, MM07, NH12, OSCE00, PMSG14, PEEd12, PBV18, PM15, Rav02, Rav05, RJLW20, RSG17, SBHS19, SZZ21, SS10a, Slo02, Sma01, SU15, Sta00, SF99, SO09, TY00, TP09, Tim19, VY09, VS03, WLK06, WZET13, WTP21, WPT17, Whi15, WkZ15, Xu04, XW05, XZLX22, YYS16, YSS07, ZT17, ZZZ21, ZS23, ZHS10, SS93c]. **Flow-Control** [Ber98a]. **Flows** [AE08, AK15, AFRV19, ABB⁺04, BB13, BST08, BBKK97, BBSW15, BCLT15, BPS13b, BPS13a, BG05b, BB08b, BN21, BD99b, BC09b, CFGM11, CCC17, CEOR18, Cha07, CL03, CDF18b, CC12a, CLLY20, CS20, CZ22, CD01, CLK18, CBS00, CHH10, CCH15, DD00, DN19, Dor98, DL20b, EAS11, GJP⁺14, GC16a, GGZ02, GZYW18, GXZ21, HM98, HR99a, HPS06, HRvdZ22, HC20a, HSY20, IR98, KCZ15, KEF11, Lee14, LD05, LCK21, MCT⁺05, Man05, MBGV16, MM14, MP20a, MT99, NNH99, OW00, RHSK11, Ros06b, SA99, SL09a, SY10a, Ste11, TAY⁺19, VN03, WLE⁺00, XMRI18, YC14, ZCZ04, BY93, LL94, TR93, Tsy97]. **FLSQR** [GNL21]. **Fluctuating** [WSA16]. **Fluctuation** [BLH02]. **Fluid** [AIP19, AB17, ACF09, BQQ08, BC10, BB15a, BKFG19, CFGM11, CHV⁺18, CHH10, Cor98, CDFQ11, DY06, DP10, DL20b, ES17, ES00, EF05, FUNB18, FGS14, FHR14, GSV20a, GLQ16, GZYW18, GX20, HHK19, HSF07, IR98, JHJ12, KN21, KCZ15, KV05, LQR12, Lee14, LM15, LO14, Lem16, LFWP08, LL08, L XK08, MRT00, MKWG15, MEF09, NV08, ODN17, PRS12, PVV11, QS14, RR98, RW13, SCC17, SM17, SOTB21, SCM10,

SNB08, SF99, WLE⁺00, WLK06, WFG⁺20, XMRI18, Yan21, Zim14, ZVF18, vBdB05].
Fluid-Filled [ODN17]. **Fluid-Fluid** [FGS14]. **Fluid-Membrane** [RR98].
Fluid-Porohyperelastic [SOTB21].
Fluid-Saturated [SCC17]. **Fluid-Solid** [KCZ15, PRS12]. **Fluid-Structure** [ACF09, BQQ08, BC10, BB15a, BKFG19, CHV⁺18, CDFQ11, FUNB18, GSV20a, KV05, LQR12, MKWG15, NV08, PVV11, RW13, SM17].
Fluid-Structure-Interaction [vBdB05].
Fluid-Surfactant [Yan21]. **Fluidity** [ALMR17]. **Fluidity-Based** [ALMR17].
Fluids [DD00, Del14, DRW20, GHHK15, GZW18, In99, KW07, KP10, KMER22, Le 01, LXS⁺08, SY14]. **FLUPS** [CGC21].
FluSI [EKSS16]. **Flux** [ACCP13, BLMR02, BHN10, BBK21, BF16, EZ11, FEM08, FM07, GC16a, KQW04, LP23, PDH09, QNNZ19, WL97, WDGK20, YHS07, ZD19].
Flux-Based [FM07]. **Flux-Continuous** [FEM08]. **Flux-Free** [PDH09].
Flux-Vector [KQW04]. **Fluxes** [DK98, Mar94, QNNZ19]. **Fly** [TY11].
FMM [AAAH⁺19, ABC⁺14, GMSB16].
FMM-Accelerated [AAAH⁺19]. **FMV** [TW93]. **Fock** [KKF11]. **Focus** [Gro02].
Fokker [AB21, CK17, CYDK21, DKO12, DCL⁺21, GM20, HHZ22, KP10, Kus00, LMM18, LM05b, LWW20, LY14, ZLTA15].
Fold [ROO08b]. **Following** [FK00a, PHJ11, Wal99]. **FOM** [Meu11].
Force [BM11, OZ16, TP09]. **Forced** [Cab94, MNRI19]. **Forces** [BZ10].
Forchheimer [ACL09]. **Forcing** [WZ18, EW96]. **Forcings** [GZ19]. **Forecast** [YLG22]. **Forecasting** [CBHB19]. **Forest** [HKB21]. **Forests** [BWG11, IBWG15, WP98]. **Form** [AKA13a, APC04, BBHJ21, BL07a, BF14, BKKM22, CZ10, CJ05b, CGX21, DGK23, DMM19, DKM14b, HKO99, HMLH18, KHE07, OR02, PSC18, PTvR⁺14, Sch18, ST11, YH17, Lan93]. **Format** [ABC⁺23, ABLM19, BG14, BKK18, BKK⁺21, BNN23, CRO23, DKO12, GKK15, HRS12, KKF11, Kor15, KMSM14, KP17, KHW⁺14, OD12].
Formats [ABLM19, OSS22, RO15a, Rak21].
Forms [KM05, MG23, RF10, RS02, BGP94].
Formula [BCMM03, DYZC22, HT14b, PDA09, Ush01].
Formulas [CK17, GS19, Ske00, SSVW17, WTG12].
Formulation [BR19, BCLT15, BMM98, BH11, BPS13b, BGPS21, BLP14, Bjø95, BIK02, BLM03, BRBT12, CW07, CRMC12, CCM08, Del14, ERSZ17, EPSU09, GM17, GS16, GP99, Giv12, GDC⁺23, HMCK04, ISS19, JSZ13, KL06, KL10, KZP20, Kup01, LM08, LM20, LRV22, LLL08, LWW22, NV08, PHA18, Pat97, PEC⁺14, QZZ14, QRV21, RG09, RH09, SWN20, VLM22, WZET13, YGS⁺21, YPHH17, dZHY23, ZVF18, dVM08, FCR93, LSM93, Nat97, PM95]. **Formulations** [AMM⁺11, AdWGV⁺20, AKMRB22, AKM⁺14a, BB13, BHG14, BJP⁺22, DH01, GRL10, GKC13, GR04, HV07, KPS19a, LWCL03, MG11, MRFV18, PS11a].
Forward [BPR16, BRR18, BJW18b, BJW18a, CH09b, DP16, EVLW17, KY19b, MO10, MT06, VP10, ZS14, ZFZ14].
Forward-Backward [BPR16, DP16, MO10, MT06]. **FOSLL*** [LMW15a]. **FOSLS** [FMM98]. **foundation** [Ber97]. **Four** [AO17, MM14].
Four-Dimensional [AO17]. **Four-Field** [MM14]. **Fourier** [BLS09, CRMC12, EMT99, GHR13, GMS18, KBG23, RAT18, AW20, AT19, AD96, ACD⁺08a, ASS16, BS94, BBBV13, BMaK19, BKH⁺22, BR95, BR18, BVV08, BIA05, BHM19, BHM⁺21, BP22, BS06b, CI19, CFY18, CDY07a, CGC21, CD13, CPG20, DG17a, DGLW16, DR93b, EBR00, EB96, EKSS16, FO08, FMB13, Gar00, GGL09, GP16, Goe97, GHR12, HRD21, Heg95, HHvR03, HKM97, Huc08, Inv02, KV12a,

KRGO19, KM12, LSY21, Lyo11, MH16, NP96, NL99, NNH99, OW02, OGO16, Pek12, PP13, RGOY10, RO12, RO15b, Sch96, TBH23, WOW00, WO01, WM05, XAW17, Yin09, ZF09]. **Fourier-Based** [CGC21, CD13]. **Fourier-Cosine** [FO08, LSY21]. **Fourth** [AP12, BS05c, BGN07, BT97, FL19, GB06b, Hen05a, KT05, KR11, LR20a, LPR02, LD16, MT22, MN18, OKGG⁺23, PL03, RWX07, WP19, ZJC12, ZF14, Zha18a, ZWP21, ZzSpH14, She94, She95]. **Fourth-** [Zha18a]. **Fourth-Order** [AP12, BS05c, BT97, GB06b, Hen05a, KT05, LR20a, LPR02, MN18, OKGG⁺23, PL03, RWX07, ZJC12, ZF14, ZzSpH14, She94, She95]. **fPINNs** [PLK19]. **FQMR** [SV01]. **Fractal** [JK21, PD15]. **Fractional** [AN17, AG18, ALLK15, ACN19, ADS21, AF15, BKM19, BCF13, BWZ21, BHK12, CRMC12, CZK15b, CZZK16, CK17, CD15b, DMSC18, DW15b, DY23, FMYT16, FF15, Fis19, GR17, GAD⁺21, GN22b, GRPK19, GLW18, GZT⁺19, HO18, HP14, HLW00, HX21, HZ22, JILGZ20, JLZ16b, JLZ17, LHL12, LMM18, Li10, LWZ17, ILTZ21, LZK17, LX16c, MS17, MMR19, MY20, Nik13, PKNS14, PNW16, PLK19, SXX17, TSX17, TYZ19, TWYZ20, WB12, WMHK19, XCLQ20, XZ23, YTLI11, ZK14a, ZK14b, ZCZK14, ZAK15, ZLLT13, ZZK15, ZLLT15, ZMK17, ZTBK18, ZzSpH14, ZZ16, ZLTA15]. **Fractional-in-Space** [BHK12]. **Fractional-Step** [BCF13]. **Fracture** [BPS13b, BPS13a, BSV19, EdDP09, HTW⁺12, HGPM14, MM07, PEdD12, WW22, Wic17]. **Fractured** [AFRV19, AGPR19, CDF18b, SCC17]. **Fractures** [BGPS21, BHR23, FK18, MJR05]. **Fragmentation** [LGW19]. **Frame** [CDBH16, LFJS14]. **Frame-Based** [CDBH16]. **Framelets** [CCSS08]. **Frames** [Pir16]. **Framework** [ACHZ21, AD21, AGI16, ACD⁺08a, ACD⁺08b, BMNV20, Ban08a, BS16a, BBH⁺16, BMMR20, BBD18, BTGMS13, BOKCW20, CHH19, yCWHJ12, CKO15, DO11, DOKM22, DSZ13, DGvdZ18, FCF14, GLRS23, GHKL22, GH18, GvR22, GPA18, IA14, JHJ12, JMNS16, JSZ22, KLRU17, KR00, Kye12, LL19, Lee12, MFSY19, Men22, MKB22, MTBT17, OS14, Pek12, PXYY16, PMSG14, PBV18, PSFL20, San10, TC12, Til15, TTY16, WL13, ZAD⁺16, ZH21, ZBdAF20]. **Frameworks** [AMV22]. **Frank** [MZWG16]. **Fréchet** [AMHR13, HR14, KR17, LKvBW10]. **Free** [ARM⁺19, ABN21, AS06, BDM⁺18, BGM13, BDKR21, BTY08, BB15c, Bog14, Bur97, CCKP21, CFSZ08, CF23, yCWHJ12, DFW21, DFW22, DKS21b, FK00a, GHKL22, GL22c, GY02, GCG⁺19, GJZ18, HKF⁺13, HXW22, HV01, HQH⁺16, HY10, HHLW15, Isa20, KCZ15, KR22, KRDL18, KV13, KGT07, LP08, LT09, LXdh16, LTzT21, LLS22c, MBKR22, MS06a, MT99, MAK20, MYZ21, PDH09, Paz20, PTvR⁺14, RK07, Sch02, SXXN22, Str94, TY00, TZ18, WL01, WWY09, XZ10, YH17, YGS⁺21, vVKA11, vdZvBdB10a, vdZvBdB10b, ACW12, Bru15, Fre93, SKF18, TR93]. **Free-Boundary** [LTzT21, vdZvBdB10a, vdZvBdB10b]. **Free-Form** [PTvR⁺14, YH17]. **Free-Space** [Bur97, GJZ18, Str94]. **Free-Surface** [MT99]. **Freedom** [SV11]. **Freeform** [RtTBAI21]. **Frequencies** [ZTK19, WM93]. **Frequency** [AIL05, BS95, BKS16a, BER17, CLL20, CHL16b, DT95, Den97a, DHM22, ERSZ17, HV07, IJ08, KMW99, KK02b, LAG14, LQ19, LGCL21, OH21, RBH06, WY19, ZNZ16, Zim14, vLH14]. **Frequency-Adaptive** [IJ08]. **Frequency-Domain** [vLH14]. **Frequency-Limited** [BKS16a]. **Frequency-Stable** [OH21]. **Friction** [CEP20, GdLP⁺18, HMW07, HSW08]. **Frictional** [CHH01, HSWW08, Kra09]. **Friedrichs** [CHWY23]. **Fringe** [NNH99].

Fromm [DT00]. **Front**

[Aru12, BLGL11, BCS11, CL97, Dk00, GT98, GBCT10, GGL⁺98, GST⁺99, GM13, HC95, HY08, Hwa07, LS95, TWZ21].

Front-Fixing [HY08]. **Front-Tracking**

[GT98, GBCT10]. **Frontier** [vdBF08].

Fronts [DBC13, TN16]. **FROSch**

[HPR22, HRR23]. **Frozen** [DLY16, DL20a].

FSAI [JFG10, JF11, JFG13]. **FSAI-ILU**

[JFG10]. **Fuel** [BK00b]. **Full** [BQRX22, BT21, CGK⁺98, CGG⁺14, DLP⁺21, EZ11, FEM08, LW20b, MBVO13, OH21, PBC05, RGOY10, SKN19, TH17, YHC16, YBM⁺18].

Full-Space [YHC16]. **Full-Tensor**

[FEM08]. **Fully**

[ABR17, AW15, ABB23, AH06, AHH12, BLR14, BW01, CG18, CF00, FCC10, GZYW18, GZW18, GVMM14, HKA⁺21, HYC15, JWC21, JLZ16b, KS18, KPW17, LVWW03, LCK21, MRKS21, NT18, RSD⁺20, SKPD22, SKP22, TKCC13, Wic17, YCC10, YC14, Yan21, ZHY21, dZHY23, Lam97].

Function

[ACD23, AP14, AP01, ADH99, AM05, BR19, BCMW20, BLB00, BKT21, BJP⁺22, BCCX21, Bur97, DFQ14, DFW21, DFW22, EFOS20a, EFOS20b, FMYT16, FM12, FT03, Gar97, GS12, GST09, GST12, GL22c, GBS19, GD07, HQR19, Hei13, HR14, JK07, JK10, JK15, JBL18, KR17, KV96, KMV05, KK09, KL13b, KLY19, KHRvBW14, Kup01, LSH17, LW19a, LSW17, Men22, Mir21, MR94, OGO13, Pir16, Rad16, RT11, RM08a, SX16a, SX17, SQO02, TWJ⁺23, TLH21, TEE⁺17, WDG⁺18, Wen08, Wen10, WRS08, XEG06, XS17, XKWY08, ZKN20, ZSPL21, ten95, Car93, OS95, PM95].

Function-Based [Rad16].**Function-Related** [FT03]. **Functional**

[CAG⁺19, CCH15, DP17, DMN08, DKS21a, GHKL22, HSF07, HZ11, HRvdZ22, KY19a, KKR21, LY13, LD03, MP08, NR98, NMFP16, UWY⁺15, WL08, WH13, XZB11, ZKV99].

Functional-Differential [ZKV99].**Functionals** [AL07, GRPG01, Hof04,

MNP07, ÖB05, SCDM⁺10, SBP04].

Functions [AMVR17, AM18, ALLK15,

ACHN21, ACCP13, Bad21, BLMR02, Bal00, BO07, BT04, BN98b, BF13, BNP15, BGM09, BT20b, Bre17, CHR99, CGS02, CSZZ20, CBN02, CVW06, DFS17, DZSN09, DG17a, DGK98, EHL05, FL18, FP07, FLF11, FS08, GLR07, GC19a, GG21, GJZ18, HK17, HHSY22, JP16, JKY21, JZX⁺21, KL94, LLHF13, LW16, LSY21, LS00, MS06a, MS20, NH18, NSJ03, OR18, Rah13, Ros05a, SCW23, SB13, Str95, TV98a, TWW16, WSK99, Wel17, WTW17, WDT22, WJMT15, XYZ05, XAW17, XD21, ZCPM20, ZCK12, ZZ18, ZH21, dBMZ11, FS96, NCV06, Tan93].

Fundamental [AFF⁺15, AA13, SK05].**Further** [CLMM00b, GG95, LZ99a]. **Fused**

[BHL⁺20]. **Fusion** [PVK16]. **Future**

[EMT99]. **Fuzzy**

[CHX15, CRV13, vdHCDD15].

G [CGQ10]. **G-NI** [CGQ10]. **GaAs**

[CCM05]. **GaAs-Based** [CCM05].

Galerkin [LWZ17, PP08a, SBND11, AB17, AM19, AD21, AW15, AGH13, AFRV19, AM20, ABMP22, ABB23, BB13, BBHJ21, BDGK18, BBH18, BB15a, BS15a, BS16b, BLY21, BK00a, BT97, Bøe93, BCS11, BBT19, BDK12, BMV11, BSU19, BKBT18, BG13, BG04, CQ22, CDG17, Cas02, CNP12, CKQ14, CN99, CW17, CHW17a, CHW17b, CMS17, CZ22, CVK13, CC19, CHH10, CDG⁺09, CS16, CGP19, CGI11, CRV13, CPB19, CKRS07, DEN21, DLM16, DHJW08, DAE02, DMRR19, DGK21, DHE13, DWQY19, EKSW15, EAS08, EAS11, EAOS21, EVLW17, EPSU09, FKMR19, FS14, FF05, FRS19, FHL13, FK21, GK11a, Gas13, GvdV17, GHH07, GL08, Gia18, GLL⁺14, GK19, Giu22, GG19b, GGK04b, GN22a, GX16b, GC16b, GC17b, GY17, GX20, GML⁺21, GSM20, HHM17, HHE10, HS05b, HH02, HSMT20, HRD21, HW21, HHvR03].

Galerkin [HLT16, HS01a, HS18, HS99c, HJX15, HHSY22, HXB11, HXB13, HC20b, HLL⁺22, JBH20, Kan03b, KPS19a, KP21, KZK17, KSMM18, KS11, Kim05, Kim08, KL13a, KG14, KL13b, KT08, KW18, KO13, LS99, LV13, LLW16, LS12b, LM20, LLLX16, LST20, LY20, LZK17, LY14, LX16a, LSZ17, LTW18, LLS22c, Liv15, Log03a, Log03b, LMMW04, LCK21, MN07, MRFV18, MMT15, MRB23, MST15, MW22, MKRK13, MT23, Mor23, Mu97, MWY17, Mu20, MYZ21, NP17, ORST12, ØLW08, Paz20, PTT20a, PP08b, Pet05, PSS17, PoH09, QS18, QS05a, QS05b, QS08b, RMC12, RG09, RSA05, ST08, SKWK18, Sei23, She94, She95, She97, She99, SW16, SS10b, SSR21, Smi97, SKPD22, SKP22, SD21, Str00a, SL09b, SH20, SL22, TCZC19, TVV11, TY15, Ull10, UEE12, WRSZ18, War13, Whi15, Win10, WvdZSvB18, WS18]. **Galerkin** [WX21, XQX15, Xu04, XS08, XOMN10, Yan14, YJXZ22, YHL19, YCS16, ZKN21, ZCL⁺11, ZP18, ZWG21, vSRV11, vdVXX19]. **Galerkin-Characteristic** [EAS08, EAS11]. **Galerkin-Characteristics** [EAOS21]. **Galerkin-Projected** [SBND11]. **Games** [And17, AHJS01]. **Gamma** [GST12, KB96, Luu15]. **Gap** [ABLM19]. **Gappy** [PDG20]. **Gaps** [GK03, HLT16]. **GARK** [CR21, RSS20, SRS19]. **Gas** [BCM15a, BQRX22, CGK13, CF07, HC20a, KWD22, LL98a, LXL11, NBA⁺14, PL06, SMZ18, Ste11, TPW09, Xu99, YHS07, LL94, SRCG93]. **Gas-Kinetic** [LXL11, Xu99]. **Gaseous** [VN03]. **Gauge** [BHST08, Chr09, DLY16, FM16, GS16, GH13, OH21, vLHH21]. **Gauge-Invariant** [DLY16]. **Gaunt** [RY03]. **Gauss** [Alp99, AM95, BR02, BMF12, Bog14, CDC19, Day98, DMZ21, EJJ08, FMRR13, GK11a, GST19, HT13a, HNR17, JM18, KS17, Lan10, MR17, PZPR07, SMYS21, SVG10b, Swa02, TW09, TTMA22, Ver94, WG18, dSK11]. **Gauss-Quadrature** [KS17]. **Gauss-Trapezoidal** [Alp99]. **Gaussian** [AM04, ACW12, Bar12b, BGR10, BTGH12, CL18b, CS14, DLY16, DL20a, DN97, DW15a, Fan22, FM12, FLF11, Fra98, GC19a, GS14, JKL22, JSZ22, KOB20, LQ19, LLHF13, LCL18, LTG22, LD04, MC05, PF12, PM03, PRM09, Rag95, RPK18, Ros06a, Tan93, WTS94, Wri93, YR98, ZMD22, Zim13]. **Gaussian-type** [MC05, Tan93]. **Gaussians** [KLY19]. **GCROT** [HZ10]. **GCV** [RVA17]. **GDSW** [HKKR19, HHK19, HKK⁺22]. **Gear** [PS97]. **Gegenbauer** [GJ05, Jac03, Kei09]. **Gel** [WGF08]. **Gelation** [EW00]. **General** [AW21, ABK11, AH09, ADK⁺98, BK06, BCR99, BBD16, Bör07, CS99, CG95, CGG07, CCA03, CS10c, DO11, DN19, EFOS20b, FL08, GCD21, GHHH17, GW15, GL22c, HR96, HV01, HDZ16, Hum95, IFSJ21, JSZ22, KL15, KL94, KKS13, KHE07, KZP20, KHW⁺14, LCD14, LSC03, wLxY00, LXdH20, OST11, PDA09, QZZ14, RK07, Saa96, SZ99, SS99, SZW20, TGS08, Vas10, WMHK19, Wat04, WZSL12, WT16, Xia13, Xia21, XZB11, Zen16, ZV05, ZSB16, WTS94]. **General-Form** [KHE07]. **Generalised** [Kas95]. **Generalization** [HJKK22]. **Generalized** [AOR18, ABP18, BS05d, BLS09, Bet08, BZ15, BCH12, BGR10, CC16, CC09, CC12b, CBN02, yCWHJ12, CS17, CP17, DB98, DZ15, DF10, DRW20, EHL05, FCF14, FCC10, GH13, GK00, GN14, GR02, GLMN15, GY02, Hös94, HLW13, HDOS23, IT09a, JNZ17, Kal20, LV98, Lan19, LSV17, LMRS15, LCN14, Lee14, LS22, LL98b, LWSP22, LK04, Nas09, NV08, NvdP00, OB21, PEdD12, RMR15, SS98, SDNC20, SVG10b, SQO02, TLN14, VYX16, WK06, XLS18, XKWY08, Yan22, YR98, ZZK15, ZMK17, Zha97, ZLG98, BD93, BZ93]. **Generalized-Laguerre** [BLS09]. **Generalizing** [ET01]. **Generated** [ADGM98, HGPM14, KKT13, Mau95, RtTBAI21]. **Generating**

[CV93, FH21, GMS21, GKL08, KLY19, LST07, LN23, NSJ03, FS96]. **Generation** [AKM⁺13, ADM⁺15, BW09, CHR99, CWL⁺14, DF10, DKS21b, FHH⁺18, FSV22, GVP06, GDB⁺22, HW14b, HHR23, HBJ04, Kaw15, Knu96, KR00, LC08, LCL18, Mac98, MBM⁺16, ØLW08, SP03, SSW18, Sch18, SKF18, SK19, VGOR20, de 99, vdSF21]. **Generative** [GH14, KPPS14, YZK20, YDK22, YLG22]. **Generator** [GS14]. **Generators** [LSW02]. **Generic** [AD18b, BMNV20, KBG23, LGC⁺23, MRS16, Mor23, RS13]. **Genetic** [DTR21, FSV22, OW02, SBK18]. **Gennes** [TXZZ22]. **Geodesic** [CSB⁺18, CDZ22, MK08]. **Geolocation** [RMD08]. **Geometric** [AC04, AC05, AGPR19, BGN07, BGN08, BB05, BKS13, CHR02, CGG⁺14, GV15, GMT98, GCN21, HKLW19, HZ22, KH22, KP12a, KS07, KS15b, MTTV98, MPRS23, PKS21, RL17, SB10, SSW18, Tap22, TCKK18, WL11, WMBT19, WJS23, WE06, ZV22]. **Geometrical** [Du11, JW05, QL06]. **Geometrically** [AL99a, HLP23]. **Geometries** [AA00, AO17, BBKK97, CCA03, For95, HBL05, IP06, MBGV16, OKGG⁺23, PHA18, She99, Smi97, SAE10, TK13, TWW16, WTW17, ABCM97, She97]. **Geometry** [AGR⁺20a, AHT12, ADK⁺98, KMS15, KC16, PNP13, SXX17, Tad20, TW03, VZA⁺23, WWM03]. **Geophysical** [FHR14, SFM20]. **Geophysics** [CGL⁺12]. **Geostatistical** [Hri03, Hri05]. **Geostrophic** [BN21, CLP08]. **Geothermal** [AHN⁺20]. **Gerber** [LSYY21]. **Ghost** [GTK⁺17, HKB21, LXX08, OZ16, WLK06]. **Gibbs** [FP14, Hri03, Hri05, JBL18, TMM20]. **Gilbert** [BBP13]. **Ginzburg** [DJT08, GS16, Mu97, MDC98, NR98, VO19]. **Given** [BF16, SSDN12]. **Global** [BBKK97, BF22a, BTGMS13, CP04, CS20, CV94, CAG⁺19, CGDD11, EL20, FL08, GJP⁺14, GAMV13, GJM94, HCL23, KH14, KL13a, KW10a, Kul12, KW15, LV07, MS07d, PRM09, RW97, TGS08, VZA⁺23, vdHCDD15]. **Globalized** [vWBV09]. **Globally** [BK08, BM01a, CGO22, KLZ22, KK23, PBP14, TBKF14, XK08, YSK19]. **Glued** [DPV05]. **GMBACK** [Kas95]. **GMRES** [ADGP07, BCGR98, BDJ05, BKL⁺17, BG22, BM01a, CGL⁺12, CGL⁺13, CHP20, De 12a, DH21, DP03, DHZ⁺21, EMN17, FG98, GAMV13, GGL07, GGPV10, GT94, Jou94, KX96, LS05b, LMW15b, Meu11, Mor02, PP08b, Saa93, VL10, WOW00, WWJ12, RF07]. **GMRES-Based** [CHP20, Jou94]. **GMRES/CR** [GT94]. **Goal** [CPB13, CCH15, DMRR19, GSS22, LW12b, LW14, PDTVM08, RL13, SCW⁺17, WCG23, vdZvBdB10a, vdZvBdB10b]. **Goal-Oriented** [CPB13, CCH15, DMRR19, LW12b, LW14, PDTVM08, RL13, SCW⁺17, WCG23, vdZvBdB10a, vdZvBdB10b]. **Godunov** [DW97a, NMAB11, Pem93, ZMC94]. **Godunov-Type** [DW97a]. **Golub** [GSR19]. **Good** [HW14b, ST97, Ten98, Wan07b]. **Gordon** [BDZ13, GMYL23, GML⁺21, Zhe07]. **Gordon-Type** [GML⁺21]. **Governed** [ABBT⁺20, LU17, LN05, SS95]. **GPBi** [Zha97]. **GPBi-CG** [Zha97]. **GPS** [CP03b]. **GPU** [ACW21, BKH⁺22, BHL⁺20, BBD18, BTK19, CW17, CHJ16, DGK21, FMYT16, FHL⁺23, GHS⁺15, GHS⁺09, HEGH14, HJJ22, LSN17, LGH⁺13, MDM15, NAC⁺15, RL18, RNR16, RHSK11, VTD12]. **GPU-Accelerated** [GHS⁺15, ACW21, CW17, CHJ16, DGK21, VTD12]. **GPU-Based** [GHS⁺09]. **GPUs** [BNN23, DCP11, GLSTV16, YTD15]. **Grad** [LTzT21, PTT20a]. **Graded** [BKS13, CWL⁺14, LC08, SSW12]. **Gradient** [ACY⁺20, AS21, ABF96, BD04, BL08a, BMT96, BCT00, BBFJ16, BCP15, BCL99, CCY23, CM98a, CM98b, CRS⁺18, CCC17,

CEOR18, CDH98, CC20, CS20, DLZZ17, DK10, DFG15, DEC05, DKS23, Don06, DN19, Fie98, GW20, GS12, GHKF22, GY99, GRMS09, GZW20, GH99, GLC21, HCHY23, HR99c, HSY20, JvGVS13, Kny01, KS13, Kup00, Kus00, LCE22, LS16b, LGY⁺23, LC21, LSZ23, Mou20, NZZ06, NLY23, OPR23, Par17, SYEG00, SCM10, SM94, Spi16, SO97, TBO10, UWY⁺15, VHSP20, VMV15, WS07, WZGO21, WJW21, WTP21, WOP23, ZCPM20, ZN05, ZZWZ14, ZZZ21, Zim13, ten95, Car93, NP96].

Gradient-Based [GHKF22, VHSP20, ZCPM20].

Gradient-Enhanced [Zim13].

Gradient-Particle [Kus00].

Gradient-Weighted [CM98a, CM98b, Kup00].

Gradients [CJ99, GRPG01, GLZ22, NR98, Not00a, PF12, RN95].

Grain [BL23b, KLT06, Man99].

Grain-Size [Man99].

Grained [BDO12, But13, CP15a, WSA16].

Graining [AKPRB08].

Gram [BG22, GL03, Ste08].

Gramian [BB08a].

Gramian-Based [BB08a].

Grandchild [DT95].

Granular [BL23b].

granularities [BME93, BEM94].

GRAPE [NKTY08].

Graph [AGR⁺20a, BLV17, BGL⁺21, BTY08, BCK22, CCS97, FFS07, GKM⁺17, GS05, HL95, HS06c, HWZ21, KPPS14, LT09, LB12, MC09, NN17, OKLS15, RC23, Sch10, VSS14, WZSL12, ZZL22, JP93].

Graph-Based [RC23, FFS07].

Graphic [WHCX13].

Graphics [BBFJ16, BCFJ19, KMSM14, Nov15].

Graphs [Ash95, ABL⁺20b, CS11, DHPAH19, ES18b, FB21, FMS17, HÖU⁺19, KK98, KPÇA12, KPP⁺14, KV13, OWO14].

Grassmann [DS96, DH16].

Grassmannian [dSGS22].

Grassmannians [SL10].

Gravitation [TKK16, WX21].

Gravitational [LXL11].

Gravity [CK15, KPS19b, LRP07, Pet93].

Gray [TWZ21].

Greedier [LLS22b].

Greedy [BW18, BW21, ERL22, Lin16, MS07b, MS07a, MS13, Zha20, ZW16].

Greeks [KKS08, WWH17].

Green [Bur97, EHL05, ZZ18].

Greengard [Alu96].

Greenland [HPR22].

Green's [GJZ18].

Gremban [FMS17].

Grid [AT17, ALMT20, AG17b, AWW19, BN23, BACF08, Ber95a, BvW09, Bot23, CWX15, CJ05a, DF10, DGL⁺12, FL97, Fer98, GI17, GV13, GKT09, GR05b, GC16b, HKF⁺13, HHLS15, HBL05, HS94, ILK05, Jam98, Knu96, KR00, KRS21, LMPQ03, Lem16, LZ21b, LJL98, MS07a, MK08, MY18, NNRW09, OB21, PCFN16, Pet99a, Pup99, ROM18, SP03, SY10b, SY12, DFK23, TCZC19, TT06, WL11, WHCX13, WLZ18, WO01, Wu18, XBC96, Xu94, Yav98, ABCM97, Atk94, TV93, VBT99, CP13, NJ14, SAB14, ZTRK14, ZNX14].

Grid-Based [HKF⁺13].

Grid-Free [HKF⁺13].

Grid-Particle [CP13].

Grids [ABBM98a, ABBM98b, ADR14, AD20, AFRV19, ABMP22, AD06, BGOD08, Bea20, BH12, BCI22, Bit99, BL05, BKS98, CH94, CKV99, DFQ14, DMBB10, DRW20, EZ11, FS14, FUNB18, FS22, FO19, FEM08, Gär09, GGL09, GMSB16, GvR22, Giu22, GZW18, GOV06, HL20, Hen05b, Hen06, HH11, JKY21, JJK23, KN21, KH00, KP12b, LE10, LO14, LDM00, Mac98, MV09, Mau95, MBVOT22, NX12, PZZB15, Pet99b, RT01, RW01, RHSK11, SJR09, SR16, SNB16, TW05, TC12, VHSP20, Wan01, WM11, WK03, WPGR13, Wu99, Yam02, YPHH17, YYY11, Zen16, ZF09, Zie12, bZOW07, BZ96, Pet93].

GRINS [BS16a].

Groove [GL22b].

Groove-Textured [GL22b].

Gross [DK10, DP17, PQR20].

Ground [BD04, BL08a, BR19, DP17, DL22, LC21, LYZ23, TCWW20, VS17].

Ground-State [VS17].

Groundwater [JKKM01].

Group [GL18, KASL21, KV12a, MW08a, TGPK23].

Grouped [BPS22].

Groups [Mit08, XD21].

Growing [FV06, FFSS13].

Growth

[BHV05, Bol03, BCG⁺¹⁰, CS94, JILGZ20, KLT06, KW10b, SSM⁺²⁰]. **GRP** [SZZ21, WT16]. **GSOR** [HDOS23]. **Guarantee** [Tao22]. **Guaranteed** [CC06, CC11, LC05a, LC08, NN12, Wal13]. **Guaranteed-Quality** [Wal13]. **Guesses** [ACW21]. **Guidance** [Lee09]. **Guide** [GP16]. **Guided** [ASR⁺²³, Fli13, TH17]. **Guides** [CC12b].

h [ST98]. **Hadamard** [KP17]. **Haemodynamics** [CDFQ11]. **Hagedorn** [FGL09]. **Half** [DT00, GHTW00, HPZ19, LZK17, NN05]. **Half-Quadratic** [NN05]. **Half-Space** [DT00]. **Half-Staggered** [GHTW00]. **Half-toning** [GPS12]. **Hamilton** [Abg09, BFS16, BHT11, BL03c, CCFP12, CCF14, CC16, CFR05, DKK21, DKS23, GI99, HW13, HS99c, HJX15, JP00, KK18, KNP01, LNSZ06, LT00, LPS13, MN07, MK00, NZGK21, RR98, TW05, ZS03, ZHL21]. **Hamilton-based** [RR98]. **Hamiltonian** [AH17, AR99, BCF01, Ben01, BB05, BCCSS21, BL07b, BGH23, CBG16, DD23, DSL21, EL20, GLMS22, JWH08, KP12a, LSM22, MW01, MHW22, MNU23, PM16, SL22, WQX20, YJXZ22, YWL21]. **Hamiltonian-Preserving** [YJXZ22]. **Hamiltonian/Hamiltonian** [MW01]. **Hamiltonians** [GLQ18, JWH08, SH01]. **Hammerstein** [KNN12]. **Hand** [ARMNW10, ALM19, BCCI98, CGL⁺¹³, CB98, HR05, KMR01, LN04, MN11, SG95, Soo16, SO10, CW97]. **Hanging** [ACK19, ZMS10]. **Hankel** [CCY23, KG18]. **Hard** [BL07b, BL08b, dMGF17, KK13, LPY⁺²¹, TW13a, TWL21, TW95, ZSPL21]. **Hard-Sphere** [BL07b]. **Hard-Thresholding** [ZSPL21]. **Hardware** [SW15]. **Hardy** [NHSS13]. **Hari** [SDNC20]. **Harmonic** [AA02, BCAG22, BB10, BHNPR07, BCY21, BDG20, CGG⁺¹⁴, CWZ07, CHMR10, DLTZ06, EDGL12, HP20, HY14, JN10, LH19, MMT15, MZ94, OR18, PL12, RL10, RGG06, RT05, VK15, VYX16, VO19, Xue18, YWG21, LX16b]. **Harmonics** [FF05, MMS23]. **Hartree** [KKF11]. **Hash** [CRR18, RNR13, TAHR15]. **Hash-Based** [RNR13]. **Hastings** [Wal14]. **Having** [JW05]. **HDG** [BT16, CSS12, Fu21, MTBT17, RW22]. **Head** [CHH19, WKM⁺⁰⁷]. **Heart** [Gob08, KLJ10, WiOH08]. **Heat** [ACL09, BK98, BK99, CIZ18, Don06, DP16, EAS08, EBR00, GS98a, GR17, HHP21, HT13b, KS14, LG09, MST15, MW22, MB19, PNP13, SK05, Str94, SD11, VP14, VB07, WMOZ22, Xu99, dCFC20]. **Heavy** [ABL^{+20b}, CHL16a, WY19]. **Heavy-Tailed** [CHL16a]. **Heavy-Weight** [ABL^{+20b}]. **Held** [ST16b]. **Hele** [ZLY⁺¹⁸]. **Helmholtz** [AGR20b, AT23, BZ96, Bar14, BBS22, BFK03, BGS09, BIA99, BIA05, BTT13, CD13, CWX15, CG17, CGX21, CGP19, CRV14, DHM22, DV20, EEO01, ED95, EOV05, EIJH20, GMN02, GZ16, GH13, GAD⁺²¹, GMO14, GHR12, GHR13, GD03, HRT03, HIT19, HZ16, HL17, HW09, KMW15, KK02b, KKS21, KL13a, KRT21, LQ19, Lar99, LMMR00, LJ19, LY16, LB06, Liv15, MRS04, PATF19, PELY13, SAB14, Sto21, TET10, WZC19, YBLH16, ZND18, ZZ18, vGEV07]. **Hemodynamics** [BCF13, FGS14]. **Hermite** [GML⁺²¹, AHV18, BS05c, BLS09, Bia94, BR95, HOY03, HCW20, KLY19, MS07d, MS17, SV13, Tan93, VMM13, WB00, XH15, ZCQQ21, Zim20]. **Hermitian** [BCR03, BGLY05, BGL06a, CGL⁺¹³, CT94, FF94, FGN93, Fre93, FS08, GLMS22, HSCTP04, KXH21, KPT16, KMR01, Lan19, LXV⁺¹⁶, LWSP22, MS06b, PPB13, Sta07, SM07, SVX15, Tre93, VD10, VK15, VYX16]. **Hessenberg** [BK17, AKK18, KT15]. **Hessenberg-Triangular** [AKK18, KT15]. **Hessian** [BGR16, BBR08, BTGH12, DM16, FLX21, FWA⁺¹¹, HM10a, KH14, LMSSS97, Mön08, PABG11, WMUZ13].

Hessian-Based [BTGH12, FLX21, KH14].
Hessian-vector [LMSSS97, BBR08].
Hessians [ABBT⁺20, GTMP07, Sch18].
Heston [GM21, HiH18, iW11].
Heteroclinic [LMR97]. **Heterogeneous** [BLS14, BGS09, BK17, BOKCW20, CSS10, CHW17b, CMS17, CYVK15, CDB13, CK07, EOVS05, GV19, GC19b, HMRR19, HMN⁺13, KK02b, KLL⁺16, LZ04, MCL19, MB19, PELY13, RSG17, WPT17, YS16]. **Heuristic** [GG18, HR96, MZW09, JP93]. **Hexagonal** [WL11, ZF09]. **Hexahedral** [RW01, SJR09].
Heyman [DS96]. **Hidden** [TB02]. **Hiding** [GAMV13]. **Hierarchical** [AA00].
Hierarchical [ABBT⁺20, ABLM19, BG14, BH22, Bör09, BTK19, BIA05, BFI07, CPS20, DKXS18, EGLS21, Ett16, FVV21, FHH⁺18, Fra98, GRS⁺15, GKS98, GMPZ06, HKO⁺23, HS06c, HLR18, ILW17, JTZ08, KGA23, KD20, LS20, LO11, MDC08, OS14, Ong97, OVV17, OSS22, PCD17, RW07, SLO13, VW98, ZBdAF20, Ain96]. **Hierarchically** [GCG⁺19, Nov15, WLX⁺13]. **Hierarchy** [AGJT21, FR15]. **High** [ACVZ12, Abg09, ADR14, AT20, Ain14, AJ21, ABHS20, ACG20, AHT12, ADGM98, ABIGG16, AT19, ADK⁺18, ABL20a, ANP00, AM20, ABMP22, BCAG22, BB17, BT06, BOB⁺19, BPS22, BMF19, BAFF00, BM08, BBF⁺22, BBH⁺16, BM05, BPR99, BG20, BBD16, BF22a, BZ15, BLR14, BQRX22, BER17, BV16, BTT13, BF22b, BP06, BTWG08, BCDE21, CI19, CL11, CL18b, CLL20, CCJ21, CSS93b, CR23, CCKP21, CDK19, CS18a, CW18, CGV18, CMM00, CCSS03, CW15, CDF18b, CLAT10, CD15b, CJGX15, CEP20, CMO10, CFJT18, CAG⁺19, CK94, DW97a, DW98, DHHR09, DTR21, DKR12, DKK⁺19, Doh21, DMRR19, DKK21, Dor10, DS16, DWQY19, DL20b, DMD⁺12, DKM14b, ES22, EFHT23, EG22, EG23, EIL⁺09, FHFR13, FMW19, For06, FSV22, FM07, FK21, GH07, GH15b, GM17, GL22a, GG19a, GM14a, GG19b].
High [Gob08, GZW20, GV16, GH14, GN22a, GN23, GM15b, GM19b, GX16b, GC16b, GLW18, GX20, GM04, GN07, HHT03, HLD12, HJ18a, HSMT20, HJ07, HBL05, HRT13, Hen06, HC20a, HMM⁺21, HV07, ISG15, IFSJ21, JBH20, Jam98, JK07, JK11, JW13, JLZ17, JZ00, KK18, KP09a, KH22, KK98, KL05, KPL13, KV05, KK02b, KP22, KW16, KS14, Kup98, Ld12, LFM22, LO11, LAG14, LQ19, LS95, LFB13, LOL13, LL00, LG09, LLLX16, LYZ20, LP23, LT00, LSZ11, LGW19, LLZW19, LGCL21, LSPRV21, LSM93, LX16b, LCR20, LNA⁺11, LX16c, MXB15, MXYB16, Mat18, MC10, MRS14, MZDK22, MW22, MAK20, MDC08, NZGK21, NHSS13, NX12, NJ14, NH12, NS06, NKM10, ODN17, Ols07, OR18, PT99, Paz20, PKD23, PL06, PVK16, PDA09, PSDF12, PPB13, PJ96, QS18, QS08b, RKLN07].
High [RW07, RMB00, RMC12, Ros05a, Ros06b, STCK21, SRS19, Say15, SLvdGK14, SKWK18, SY10b, SY12, Sma04, SD10, SC98, Ste16, Str99, SJD14, TW05, TCZC19, TAY⁺19, TBH23, TT20, TMM20, TM14, TPB17, Van20, VB07, VGOR20, Vil15, WZB⁺23, WS05, WMC12, WBTG18, WSK99, Wel20, Wen08, Wen10, WMBT19, Win06, WRS17, WSX17, WS20, Wu21, WZ21b, WX21, XB16, XQX15, XH05, Yan22, YZZ19, YCS16, ZNZ16, ZS03, ZLS12, ZSB16, Zha18b, ZHQ20, Zha22a, ZFZ14, ZLTA15, ZHL21, ZV22, ZLJ96, Zin00, ZBdAF20, bZOW07, dSGS22, vdHCDD15, BSMM16, BY93]. **High-Accuracy** [Dor10, GL22a, JZ00, ZLJ96, Zin00].
High-Dimensional [BPS22, BF22a, BTWG08, CL18b, CAG⁺19, DTR21, ES22, EFHT23, FSV22, GH14, GN22a, GN23, GC16b, HJ07, JK07, KK18, LSPRV21, MXYB16, MZDK22, NZGK21, NJ14, PVK16, RW07, SY10b, SY12, Sma04, Ste16, TMM20, WZB⁺23, WS05, bZOW07, dSGS22, vdHCDD15, DKK21].
High-Fidelity [NKM10, TAY⁺19].

High-Field [GV16]. **High-Frequency** [BER17, KK02b, LQ19, LGCL21, ZNZ16].
High-Index [YZZ19]. **High-Level** [FHFR13]. **High-Order** [ADR14, ABHS22, AHT12, ADGM98, ABIGG16, AT19, ADK⁺18, AM20, ABMP22, BCAG22, BT06, BOB⁺19, BMF19, BBF⁺22, BPR99, BBD16, BZ15, BLR14, BTT13, BF22b, BCDE21, CI19, CR23, CCKP21, CDK19, CS18a, CW18, CGV18, CMM00, CDF18b, CEP20, CMO10, CFJT18, DW97a, DW98, DKR12, DKK⁺19, Doh21, DMRR19, DWQY19, DKM14b, EG22, EG23, GH07, GM17, GM14a, GZW20, GM15b, GM19b, GN07, HHT03, HSMT20, HRT13, Hen06, HMM⁺21, ISG15, JBH20, JLZ17, KP09a, KL05, KPL13, KP22, KW16, LO11, LL00, LYZ20, LCR20, MC10, MAK20, NS06, ODN17, Ols07, OR18, Paz20, PKD23, PDA09, PJ96, QS18, RKLN07, RMC12, Ros05a, STCK21, SRS19, Say15, SC98, Str99, SJD14, TBH23, TT20, TM14, TPB17, VB07, VGOR20, WMC12, WSK99, WMBT19, WS20, Wu21, WZ21b, WX21].
High-Order [XH05, Yan22, ZS03, ZHQ20, ZFZ14, ZV22, ZBdAF20, ABL20a, CSS93b, LSM93].
High-Performance [BB17, Mat18, PPB13, Van20, WRS17].
High-Resolution [BAFF00, CCSS03, FM07, HBL05, Kup98, Ld12, LFB13, LOL13, LT00, PL06, Ros06b, BSMM16].
high-Reynolds [BY93]. **High-Speed** [HC20a]. **Higher** [AABM13, AL97, BCR11, BM11, BR19, CG07, DFS17, DL23, DS14, DGP18, DS97, GMvdV18, GMS21, HLP23, ILK05, Kye12, LZG20, LE10, Lin06, LMRS21, LD04, MGG19, PWF18, Pem93, PRM97, RRR05, VVM12, WGT14, XH15, YSS07, Zha18a, dVM08, vdVXX19, ZMC94].
Higher-Dimensional [DFS17, LD04].
Higher-Index [AL97, PRM97].
Higher-Order [AABM13, BCR11, DGP18, GMvdV18, GMS21, ILK05, Kye12, LMRS21, PWF18, VVM12, YSS07, dVM08, Pem93, Zha18a, ZMC94]. **Highly** [AKT16, BMP14, BHT00, CSS09, GH99, HA01, HW14a, HMN⁺13, HX21, HSY20, Ket08, KC16, KWG⁺20, KR12b, LXYZ23, OGO16, RSG17, Sch98, Vil14, YP98].
Hilbert [ZK14c, AE95, TY08]. **Hilliard** [GHMY18, KW07, AL119, BS15b, HYW20, XSWG23, XZ23]. **Histograms** [CSB⁺18]. **Historical** [CRS⁺18]. **HITS** [FLM⁺05]. **HLLC** [BCLC97, CLLY20, Gur04, Pel18]. **HLLC-Type** [CLLY20, Gur04]. **hm** [MRK20]. **hm-toolbox** [MRK20]. **Hodge** [GH13, KH22]. **Hodge-Star** [KH22]. **Hodgkin** [BN13, CRS20]. **HODLR** [MRK20]. **HODLR2D** [KGA23]. **Hodograph** [RV22]. **Hole** [FNL⁺19, Pet99b]. **Hole-Cutting** [Pet99b]. **Holistic** [NL20]. **Holm** [LX16a, ZLZ22]. **Holonomic** [KM11]. **Homoclinic** [LMR97, LCH99]. **Homogeneous** [KS19, YZ07, YZ08, GM17].
Homogenization [AB17, CC16, HP20, Kna98, YHFG22]. **Homogenized** [GLL21]. **Homology** [PSKG13]. **Homotopy** [LZ99a, Oet99, TVV20, WWYX20, ZLG98, ZFwCW15, LL93]. **Hopf** [BFR23, EMSW12, GM96, MCJN94, WAS94]. **Hopfield** [Wan07a]. **Hopping** [CL18b]. **Horizon** [AFS19, OSS22]. **Horn** [SWB16]. **Horseshoe** [UDH23]. **Householder** [DHHR09, MOHvdG17, YFS21]. **hp** [AJ22a, HS01a]. **hp}-Adaptive** [HS01a]. **hp-Version** [AJ22a]. **HPC** [AKK14, CHV⁺18, GKK10]. **HQRRP** [MOHvdG17]. **HSS** [GLR⁺16, MRK20]. **HSS-Structured** [GLR⁺16]. **Huber** [HW99, RSNR17]. **Hughes** [GM13]. **Hull** [AP01, Gre03]. **Human** [WiOH08]. **Hunter** [XS08]. **Hutchinson** [Che16]. **Huxley** [BN13, CRS20]. **Huxley-like** [BN13]. **Huxley-Type** [CRS20]. **Huygens** [Luo19]. **Hybrid** [AG18, AJ22a, Alp99, ABL20a,

BB13, BBP21, BC10, BC06, BCSS14, BBD18, BNN23, BCDE21, CPS20, CP13, CDF18b, CLL13, CEP20, CP15b, CS17, CFH19, CDN16, CGDD11, DW98, DP10, DGLW16, DRW20, FR15, FS12, GJLX16, GH07, GRS⁺15, Gon15, GKK10, HL20, HKLW21, HKB21, HEGH14, HMM⁺21, JcS21, JWH08, JP14, Kar96, KK02a, KSB11, Kof04, LW12a, MRT00, PEdD12, DHM⁺23, RT10, RVA17, ST17a, TTSM08, VTD12, WDG⁺18, WC23, WKKP13, WS15, ZCQQ21, ZH09, vdHCDD15, FS13].

Hybridizable

[CDG⁺09, CS16, FKMR19, SSR21].

Hybridization [DKL⁺19]. **Hybridized** [BEH⁺19, HRD21, WMBT19]. **Hydraulic** [SBK13]. **Hydro** [LXK08].

Hydro-Elasto-Plastic [LXK08].

Hydrodynamic

[CCKP21, CYZ17, GZYW18, GZW18, HNS08, LXL11, OB08, ZYLW16].

Hydrodynamical [ANP00, BI09].

Hydrodynamics

[AT17, ALMT20, ADK⁺18, DW97b, DKR12, Gon15, STCK21, WSA16, WT16, Wu21].

Hydrogen [VS17]. **Hydrostatic** [ABB⁺04, BSA13]. **Hyper** [HvBW23].

Hyper-Differential [HvBW23].

Hyperbolic [AM18, ADP20, AH09, AD06, AGH00, BLH02, BBK21, BF16, BBSW94, BGGM22, BBF⁺22, BPR99, Bjø95, BR09, BPR13, BT20a, BBC⁺21b, Bur14, Bur23, CR23, CPPR12, CCER12, CDF18a, CLL13, CK94, DM13a, DMMO04, DH95, DRFNP07, DGLW16, DS16, DBSR17, DB07, FS05, FK21, GvdV17, GB12, GSW17, GS00, GPSY17, GW00, HH02, HL09, HK17, Hol99, HS01a, HC20b, IT09a, JT98, JW05, KPL13, KNP01, KPP07, KPW17, KEC23, LPR02, LLLX16, LSZ17, LLS22c, LMMW04, Mar94, Nor07, RSW10, Rim18, RSA05, SL11, ST17a, Ser06, SDNC20, SMR01, SJD14, TW12, TCZC19, Tor12, TW95, Van95, Vil09, WC03, WDG⁺18, ZQ17, dLRT09, Pem93, LD16].

Hyperbolic-Elliptic [CCER12].

Hyperbolic-Parabolic [AH09].

Hyperbolic-Type [GW00]. **Hyperbolicity** [DEN21]. **Hyperbolicity-Preserving** [DEN21]. **Hyperbolization** [TM14].

Hypercube [BME93, BEM94, CG93].

Hyperelastic [BMR13, SSJB17].

Hyperelasticity [GC19b]. **Hypergraph** [AKA19, AKA13b, ÇAK11, CCQ16, CQZ17, GBDD10]. **Hypergraph-Based** [GBDD10].

Hypergraphs [KPÇA12].

Hyperinterpolation [AW21].

Hypernetted [BPP07]. **Hyperrectangles** [Say15]. **Hypersingular** [Car07, CP07, GGK04b, HS99b, ST98, ZXY21].

Hyperspectral [BNP15, SKMF15].

Hyperspheres [TGC94]. **Hypersurfaces** [PP97]. **Hyperviscosity** [SWN20]. **Hypre** [KALO07].

I/O [AGL10, HKA⁺21]. **I/R** [MIS03].

IBOR [LSPRV21]. **IC** [BT00b]. **Ice**

[ALMR17, BSA13, HPR22, ISG15, PMSG14, TPT⁺16]. **Icosahedral** [WL11].

Icosahedral-Hexagonal [WL11]. **Ideal** [CCJ21, CLTX15, CFJT18, DW97a, Gur04, HRT13, MRS18, WS18, YHS07, ZMC94].

Identical [BLMS21, BLMS22].

Identification

[AHDK14, ABP18, BU15, BCH12, CT03, EHS19, HKL⁺22, HID23, JL20, KGM⁺08, KGM⁺11, KZ00, KG18, LS16a, PSDF12].

Identifying [AD15, EMSW12]. **IDR**

[SS10b, SvG08, Son12]. **IEEE** [MRV06].

IEEE-754 [MRV06]. **Igatools** [PMCA15].

Ignition [BK00b]. **iHDG** [MTBT17]. **II** [ABBM98b, AHT12, ADH99, ACD⁺08b, BT06, BS23a, BG05b, BM10b, Bur14, CM98b, CW14, CHL16b, DB94, DF99, EG23, FGMP14b, GS02a, GHR13, GM96, Hes97, KGGS10, LP08, LNZ19b, Log03b, MMY96, NN17, Nat97, Pem93, PMSG14, ROO08b, She95, SY12, SKP22, SM07, VW98, WTW17, YZ08, ZLBC03]. **II**.

[CPV95, SVX15]. **III**
 [ABH03, GS02b, Hes98, She97]. **III**
 [BS07, Bur13, Bur14, CH17, CCS98,
 FKN⁺20, HR96, HvBW23, KO99, Lan10,
 LM17, MFJ19, NM13, PS01, Reg96, RS02,
 SBC93, TO15, VW94, Di 95, HO93].
Ill-Conditioned [BS07, CH17, CCS98,
 FKN⁺20, MFJ19, PS01, Di 95].
Ill-conditioning [SBC93]. **Ill-Posed**
 [Bur13, Bur14, HvBW23, KO99, Lan10,
 LM17, Reg96, RS02, TO15, VW94, HR96,
 HO93]. **ILU** [Bol03, CPV95, CMV97,
 Gup17, HS06c, INS05, JFG10, KOV15,
 MW13, Saa96, SZ99, Saa03, Saa05]. **ILU0**
 [GM15a]. **ILUM** [Saa96]. **ILUs** [BS05f].
ILUTP [May05]. **Image**
 [Ami94, BV03, Bar12a, BDE08, BDR18,
 BMR13, BNFS13, CDBH16, CCS⁺19,
 CGM99, CMM00, CCSS03, CC03, CC11,
 CJK10, CMSS06, DEC05, DGP10, DMN08,
 FNNB05, FNB06, GY05, GMS02, GLN09,
 HM05, HHM07, HHM08, HW01, HW03,
 Hen05a, HLMR96, HS06d, HDB08,
 HHMDC18, KY03, KRDL18, KHKL16,
 LFB13, LRT11, MR17, MB17, MGDB19,
 NWY10, NWY11, NP14, NN05, NNT13,
 SSM⁺20, WBFA09, WNC08, ZWZ⁺13].
Image-Driven [SSM⁺20]. **Image-to-mesh**
 [CC11]. **Images**
 [BBSW16, BNP15, CCSS08, CC10, GHS⁺09,
 HLZ13, LQZ22, Mit08, NO98, ZZY09, Gu93].
Imaging [AILP07, AKLP10, ACHN21,
 CHH19, CGM⁺21, CJN13, CHKsL20,
 DEM⁺20, FHR14, HHP22, JBL18, LTG22,
 MSL13, Tim19, XK08, dSK11]. **Imbedding**
 [PV94, PV95]. **IMEX**
 [BR09, BBM⁺15, BMV13, EG23, GML⁺21,
 PL21, WvdZSvB18]. **IMEX-DG-S** [PL21].
IMF [VM13]. **Immersed**
 [AL02, AC04, AC05, AM19, BMD016,
 BKFG19, CBF17, DK03, FGMP13,
 FGMP14b, FK00b, GY06, Giv12, HHLZ21,
 JP01, KP06a, KLJ10, LHL12, LL97, LL03a,
 LP04, MP20b, MR18, TLLK09, TP09, VP10,
 WFAP15, XW05, FGMP14a]. **Impact**
 [Kaw15, SCS04]. **Impedance**
 [BCH12, BTLZN22, CHH19, GJ21,
 HHMS15, KH00, vdDA12]. **imperfect**
 [LP06]. **Implementation**
 [ABH03, AH06, AW11, BMP14, BP97b,
 BBC⁺01, BG12, BB02, CD20, CVW06,
 Drm97, DG99, DSYG18, FN94, GCB15,
 GLR⁺16, GMT98, HS05b, HKR16, HWD02,
 HS17, HMR09, HC98, JK21, KR06, KBG23,
 Leh15, LZ99a, LXES19, LT14, MCT⁺05,
 MLL13, McL07, NRSD18, SCM10, ST00,
 VW98, WL13, XH15, ZK96, FGN93, Göt94,
 Heg95, Log03b, Smi93]. **Implementations**
 [BDM⁺18, GKNW18, Ket08]. **Implemented**
 [CPG20, Yan19]. **Implementing** [EFOS20a,
 EFOS20b, LST07, LZ99b, Van20, YYWY18].
Implicit [AT20, ADP20, ALJ99, AAI98,
 AHH06, ACF09, BF06, BZ15, BPR13,
 BBM⁺15, BQR18, BW01, BHK12, CB98,
 CZZK16, CCM08, Che16, CR21, CCG14b,
 CS10b, CMSS06, CPB19, DW98, DHL21,
 DLM16, DFW22, DMD⁺12, DB07, EL20,
 Ena97, EF05, GH18, GRL10, GKC13,
 GNS22, GX16b, HC05, HMR09, HYC15,
 HPS22, JSZ22, JWC21, JLP18, JR96, JR98,
 KSMM18, KW15, LL02, LM05b, LCK21,
 MR09, MNS07, MO10, NNRW09, NW22,
 NKM10, ODN17, OS98, PP05, QS18, Rak21,
 RHL⁺21, RMC12, RG09, Sem10, Ske00,
 SKPD22, SKP22, TKCC13, VV05, VD10,
 VS04, WSA16, XZLX22, YCC10, YC14,
 ZEG19, ZTBK18, ZSB16, ZLZ22, ZS02,
 dLRT09, vdVXX19, BCT05, BQRX22,
 GC16a, KS13, Lam97, Lie93, TV93, vd97].
Implicit-Explicit
 [AT20, ADP20, AAI98, BPR13, BQR18,
 CZZK16, CR21, CS10b, DW98, GKC13,
 JLP18, ODN17, VS04, ZSB16].
Implicit-Modal [KSMM18].
Implicit-Solvent [WSA16].
Implicit/Explicit [DMD⁺12]. **Implicitly**
 [BCR03, BR05a, DPF15, FGO20, JN10,
 LVWW03, PHA18, Say15, ST16b, SSW98].

Importance

[EBSS⁺¹¹, Kaw17, Kaw18, Kol99, MDG⁺¹⁸, QDKW18, WLP020, ZWH⁺¹⁴, ZWH21].

Imposed [BBS19, BBS22, MRB23, Vil09].

Improve [DJ07, HJKK22]. **Improved** [ACdS⁺¹¹, AMH12, ALRT17, AL07, BGH⁺⁰³, DM16, DDF00, DG16, FO19, GLZ22, HL95, HR98b, JSPC97, Joe95, Lee10b, LGP14, MP20b, MT19b, Mit23, Nik00, OX22, PQOB14, Pol16, RX17, TLH21, ZF14]. **Improved-Quality** [Joe95].

Improvement [BGS17, BDE08, TEE⁺¹⁷].

Improvements [BMR10, Cho01].

Improving

[AAB^{+15b}, BDJ05, BTLZN22, CZ13, GSS00, GG10, HR98a, KV13, LLS22b, MS06b, NL20, PDE⁺¹⁷, RF07, SRI⁺¹⁸, vSRV11].

Impulse [CC08, Cor98, MIS03]. **Impulsive** [YZY09]. **Inaccuracies** [CSS09].

Inaccurate [Kou09, TEE⁺¹⁷]. **Incident**

[ABL20a]. **Incident-Field** [ABL20a].

Including [CAB04, CGX21, JSV10, LM12, LM21, MN11]. **Inclusions**

[AIL05, AILP07, CHZ21]. **Incomplete** [BS99a, BSvD99, BMMM08, CLNZ16, CP15a, GST12, GG10, HSTH18, KN21, KLN20, LL17, LM99, MOKS12, MG07, Man95, Meu01, MM95, MM98, MMN00, Nap23, PSLG14, RT10, ST14a, ST14b, ST16b, SKN19, VM13, WGB97, WZSL12].

Incompressible [AMMR10, AMM⁺¹⁰, ABM⁺¹³, AB19, AABM13, ACW21, BB13, BBSW15, BCLT15, BSSW13, BL07a, BW11, BS15a, BBKW19, CPW15, CRS21, CC12a, ICCVEKV17, CHH10, CST⁺¹³, DSW22, DD00, DL17, DLTZ05, EAS11, EAOS21, EMSW12, Fai03, FMW19, FGO20, FF05, GHTW00, GHST98, GK98, GGS08, GXZ21, GM15b, GM19b, HSB20, HHK19, HB97, JK00, KGGs10, KCZ15, KPS19a, KOV15, KBG18, Kup01, LW12a, Lay96, LL03a, LPMR19, Lui01, LCY⁺²⁰, MS06a, OSCE00, PWZ10, PT01, PSC⁺¹⁶, SBHS19, SY10a, SWT00, hSSW23, SF99, SO09, TLN14,

TLLK09, TAY⁺¹⁹, WGS17, WG20, ZHS10, ZVF18, ABS96, ABCM97, SS93c].

Inconsistent [BW21]. **Incorporate** [LP03].

Incorporates [Bol03]. **Incorporating**

[IP06, McG95]. **Increasing**

[MKRK13, RZTK⁺¹⁵, vSRV11].

Incremental [KGM⁺⁰⁸, ZCC⁺¹⁶].

Indefinite [BHT00, CKY98, CPS11, DKXS18, EPV94, GW98, GG03, HS06a, HSCTP04, MM19, MGW00, NV98, PV95, SIS96, ST98, VK13, XS17, dSL05].

Independence [FL18, FK00a].

Independent

[AD20, BBC07, BVW03, CKLL16, DP10,

HTB⁺⁰⁵, JK12, MXB15, MR07]. **Index**

[ABST13, AL97, BBC07, GPS95, GW00, MB00, MB02, MS93a, MMVW13, NPS22, PRM97, RMB00, RNV17, Sch05, TBKF14, YZZ19, Lam97, MT97a]. **Index-**

[ABST13, Sch05, Lam97, MT97a].

Index-Aware [ABST13]. **Indexing**

[BG12, ZS99]. **Indicator**

[ACHN21, Ber98b, Pic03, ZWG21].

Indicators [QS05a, VR16]. **Indices**

[HAG17]. **Indirect** [CGR14]. **Induce**

[SvG10a]. **Induced**

[CC98, DMM⁺¹⁶, Kla98a, KWW13, LRP07,

LP08, NG18, SE16]. **Inductance** [MS07c].

Induction [HS99a]. **Inductionless**

[LNZ19a, LNZ19b]. **Industrial** [ERSZ17].

Inequalities [BW96, WC23]. **Inequality**

[BL07b, KB08, KP12a, Lee13b, wLxY00].

Inertia [CP95, LRP07, SWW08].

Inertia-Gravity [LRP07].

Inertia-Revealing [SWW08]. **Inertial**

[BRR18, WS95, RST93]. **Inexact** [BN05,

BRR18, BVW03, CK02, CL11, CSW10,

EV13, FSvdV98a, GY99, GRMS09, GC19b,

GHKS14, HYC16, KW00, KHRvBW14,

LOSZ07, LK15, LHL⁺²², LR20b, LW20b,

LCY⁺²⁰, LC23, NWY11, SBM07, SS03,

SV01, Wic17, YDF97, Car93, EW96].

Inextensible [LHL12, LO19]. **Inf** [HS06d].

Inf-Convolution-Type [HS06d].

Infeasible [HS06d]. **Inference** [AWA⁺18, DKM14a, HXW22, LW12b, LW14, MKW23, Peh20b, QFW22, Rei13, UWWP23, YGS⁺21]. **Inferences** [FL18, GR04]. **Infinite** [APSG14, APSG16, AS18, Bla98, BTGMS13, Coa12, GJ17, GM98, GKNW18, GMYL23, HLP21, JMR17, NHSS13, PMSG14, PSSW15, SD11]. **Infinite-Dimensional** [APSG14, AS18, BTGMS13, PMSG14, APSG16]. **Infinite-Variate** [GKNW18]. **Infinitely** [IK10]. **Infinitesimal** [CR21, FR23, RSS20]. **Influence** [BCCI98, EHL05, KS15b]. **Information** [CLNZ16, DGS08, EBSS⁺11, GRT05, GKRB16, KKP14, KdS05, MGG19, PVK16, UG19, YTT21, Car93]. **Informed** [BT20a, CYDK21, GYZ23, HJKK22, LPY⁺21, PLK19, WTP21, YZK20, YZL20, ZGK20, YDK22]. **Inherent** [KW10a]. **Inhomogeneity** [LLS19]. **Inhomogeneous** [ABBM98a, ABBM98b, AM19, BCAG22, BV20, CHZ21, FDS13, Kon21, LQZ22, ZCZ04, ZB12]. **Initial** [ACW21, BHP98, CGAD95, Cas05, CV94, DKO12, FS02, For06, GG13, HJ18b, IM97, LV07, LZ21a, LMM18, LK98, Pat97, Rán93, Sar97]. **Initial-Boundary** [FS02, For06, LZ21a]. **Initial-Value** [GG13]. **Initialization** [FLM⁺05, GB98, KOB20]. **Initialized** [CRO23]. **injection** [SS95]. **Inline** [FDH⁺20]. **Inner** [DHZ⁺21, EMN17, GGGL10, GY99, HJ19, OKdSG17, Won16, Saa93]. **Inner-Iteration** [DHZ⁺21]. **Inner-Outer** [GGGL10, GY99, OKdSG17, Saa93]. **Innovations** [Kea97]. **Input** [AA14, BTWG08, JML22, NS21]. **Input-Output** [NS21]. **Inputs** [BBC⁺21b, CJGX15, CAG⁺19, JLP18, KKN21, KP21, LZ20, XH05]. **Insect** [EKSS16]. **Insertion** [CC12b]. **Insights** [DMM19]. **Inspirals** [FNL⁺19]. **Instabilities** [CSS09, MIS03]. **Instability** [LP04, Mat95]. **Instationary** [And17, LP22]. **instructions** [Goe97]. **Insulators** [ACdS⁺11]. **Integer** [JF16, VLM22]. **Integral** [AAAH⁺19, AHK⁺17, AL99a, ATV07, ADS21, AC95, ACD⁺08a, ACD⁺08b, BHK14, BLM22, BQR18, BV98, BIYS00, BS06a, CDK21, CDY07a, CP03a, CP05, CP07, CCA03, CCC18, CB22, CC18, CGMV05, DO11, DD13, Du16, GCS19, GL22a, GS18, GPK04, GK98, GM23, HW15, HO18, HS05b, Hel11, HJ18c, HS12, HS99b, HW09, HV07, JVG12, KX96, KL13a, LS99, LL11, LXYZ23, MG11, NKLW94, Nas09, NAS13, Nit99, PATF19, PRM09, PS19b, QZZ19, Rah00, RU01, Ros06a, RD21, ST98, TW03, VGOR20, VPP05, WC22, XEG06, XZB11, XCLQ20, YCZ13, YR98, ZXY21, ZB12, iw11, ABCR93, Atk94]. **Integral-Equation** [MG11]. **Integrals** [BT13, BD99a, Car07, EJJ08, GKNW18, GGK04b, Inv02, ISS06, KKS13, LS12b, Li10, LW16, MAH22, PDA09, Wen08, Wen10, Yum03, YK03]. **Integrate** [BS15a]. **Integrated** [IT14]. **Integrating** [LLJF21]. **Integration** [AT19, BCR99, BL07b, BV09, BGMW17, CSS09, CKN06, DHL⁺23, DEP11, Elb06, FFK⁺14, GV07a, GH18, GM98, GC16a, GNS22, GS02a, GS19, HS97, JSPC97, KP12a, KKN18, LS12a, Lau22, LL03b, LD04, Man05, McL95, Mic01, Mis01, PBP14, Pat97, PS19a, PVC17, PP12b, RMR15, STCK21, Sei23, Ske00, Tap22, Vil15, WSZ14, Yum03, ZS14, AGC96, Rán93]. **Integrator** [AE18, BDZ13, BLR99, BV16, Cas05, EL18, GG13, HJX23, KBG18, KL00b, TT20]. **Integrators** [AB16a, AMH11, AV21, BB05, BCSS14, BCCSS21, BT19, Buv20, COR13, CRS20, CMO10, DMD⁺12, DSL21, FMYT16, GDB⁺22, HLS98, Jah04, KM19, LV20, LW16, MW08a, MMVW13, MHW22, SZS97, Vil15, CSS93a, LMSSS97]. **Integro** [AH18, SE11, ZV05]. **Integro-Differential** [SE11, AH18, ZV05]. **Integrodifferential** [MSW05, Win10]. **Intensity**

[LQZ22, MR17]. **Intensity-Preserving** [MR17]. **Interact** [Men94]. **Interacting** [KKP14, LL22]. **Interaction** [ACF09, BQQ08, BR19, BC10, BB15a, BKFG19, Bur23, CHV⁺18, CDFQ11, FUNB18, FGS14, FKTW10, GSV20a, Gu93, HDB08, KV05, LL22, LQR12, LW20b, MKWG15, NV08, PVV11, RR98, RW13, SOTB21, ZVF18, vBdB05]. **Interactions** [AKPRB08, DW97a, DCL⁺21, GGM01, HHLZ21, JLXZ21, LT21, XC20, ZZZ21]. **Interactive** [DTT⁺16]. **Interconnecting** [LOSZ07]. **Interest** [GV07b, LQX14, MNvST13, ZBFN17]. **Interface** [AL02, AC04, AC05, AdWGV⁺20, BMDO16, BP13a, BEH⁺19, BCDE21, BFSN08, CFGM11, DL17, DQQ13, DFL20, DK03, ES17, EHS19, FKQS17, FK00b, GGLT00, GGZ02, GDC⁺23, HLLM15, HCRT13, HBSC97, JW05, JLY08, KMW99, KGR16, KLT16, KS15b, KSW20, LHL12, LO19, LL97, LL03a, LI01, LWCL03, LY20, LD05, LGR20, MR18, Mu99, NKM10, QS14, QSV06, Rei18, SSVW17, SF99, TLLK09, Wan04, WCHZ14, XW05, ZEG19, ZD09, ZF14, Zha18a, ZLY⁺18]. **Interface-Preserving** [SF99]. **Interface-Strip** [QSV06]. **Interface-Type** [JW05]. **Interface/Multigrid** [AL02]. **Interfaces** [AWW19, BG20, CG99, GSV20a, KBP17, MJR05, MK96, MRS16, WP19, ZWP21]. **Interfacial** [HM98, MR18, SF99]. **Interior** [ACCO00, BHT09, BB08b, BCL99, CMS17, CSW10, CFM98, rFS12, GvdV17, GHKS14, KV20b, KM16, Pla98, PBJ⁺96, RG07, RN14, SVX15, TK13, VK15, WWY11, ZG23, dMHJM00]. **Interior-Point** [ACCO00, CSW10, CFM98, GHKS14, Pla98, PBJ⁺96]. **Intermediate** [FNL⁺19, Pat97]. **Intermediate-Mass-Ratio** [FNL⁺19]. **Internal** [DQQ13, Hwa07]. **Interpoint** [LL17]. **Interpolant** [AS16, Ber00b]. **Interpolants** [EM99, FM12]. **Interpolating** [AF11, AMV22, BT19, Har11, Hol99, KW10a, Por01]. **Interpolation** [AGSZ16, AD18a, AWW19, AN16, AKM⁺14a, BLS06, BLB00, BEEM18, BG21, BKH⁺22, BCK⁺18, BCF⁺00, Cai95, CD19, Cao07, CV07, CD15a, CW15, CS10a, CH94, CCFG23, CW12, DEM⁺20, DD12, DFQ14, DMBB10, Doh07, DKS21a, DG16, DHO12, GL18, GLS13, GD07, HV01, Isa20, ILW17, JKY21, Kog22, KLY19, KLZ⁺06, KP07, LW19a, LR99, LSY21, LN04, MH17, MS07d, MC10, MS20, NK15, NX12, NX13, OST11, PBWB14, PDG20, PATF19, PRM09, PJ96, SV13, Sai20, SBK18, SCW23, TGC94, VMM13, Vas10, WCS00, WB00, WTG12, Wel17, Wel20, WRS08, XH15, XZ10, XZ14, ZN16, ZCK12, ZHQ20, ZZ16, ZH21, Zim20, vHBTC12, AE95, Anj93]. **Interpolation-Based** [BG21, CCFG23]. **Interpolations** [RKLN07]. **Interpolative** [BCY21, LY17, PHY20]. **Interpolators** [PLVG⁺22]. **Interpolatory** [BBBG11, GSW13, Men22, dSGK⁺15]. **Interpretation** [BGMW17]. **Interpreting** [SS10b]. **Interrupts** [LNP15]. **Intersection** [SV08b]. **Interval** [BDMFSL04, CGS02, GCB04, Kea97, McL12, SXXN22, SV03, Yun03, Jam96]. **Interweaving** [MSB⁺15]. **Introduction** [Elm98]. **Introductory** [BV19]. **Intrusive** [GLL⁺14, GLMN15, GN19]. **Invariance** [BB05]. **Invariant** [ARM⁺19, BP12, BDF08, BV16, BDE08, BBK06, CR23, Chr09, CGP22, DLY16, DDF00, DB94, EL01, EL03, EG22, EG23, FD03, GPSY17, GNPT18, HKM97, LLD99, LSU11, LX16a, RWDL19, VP11, Wu21, YY18, ZLZ22]. **Invariant-Domain** [EG23]. **Invariant-Domain-Preserving** [EG22]. **Invariant-Preserving** [ZLZ22]. **Invariant-Region-Preserving** [Wu21]. **Invariants** [CHAMR06, SBS98]. **Invasion** [WP98]. **Inverse** [AB08a, AMH12, APSG14, APSG16, AS18, AVBTG17, AA13,

ABBT⁺20, ADL⁺12, AHDK14, AC22, BCS07, Ban08a, BL03a, BYZ19, BSHL14, BH20, BC06, BK08, BMT96, BT98, BT00a, BCT00, BBFJ16, BCFJ19, Bol03, BS05f, BESS19, BT01, BGR16, BDR18, BBR08, BTGH12, BTGMS13, BGMW17, BJW18b, BJW18a, BH14b, CPS20, CDGS05, CBG12, CK23, CYDK21, CS98, Cho00, CDY07b, CN10, CCO11, CEO11, CS17, CGM00b, CHM02, CPD17, DSZ13, EMSW12, FLU⁺20, FWA⁺11, GSO17, GNL14, GY02, GS98b, GHR12, GHR13, GMS18, HHP21, HN20, HvBW23, HC05, HCRT13, HAS20, HP94, Hös94, HZ22, JFG15, JKM14, JL19, JZX⁺21, JcD521, KY19b, KLZ22, LLZ08, LM14a, LZ17b, LLSX21, LWG10, LNC05, LY22, LPY⁺21, LvL21, MWBG12, MZ94, NP10, NRS18, OGO16, PVV11, PMSG14, QZZ19, RKvdDA14, RCC18]. **Inverse** [SSW18, SKN19, SSC⁺15, SCW⁺17, SLO13, SSR⁺22, TS11, TPQD22, TBKF14, TTY16, UG19, WZ03, WBS⁺17, WBTG18, WG20, XYGO01, XK08, YG15, YBHY15, ZN16, ZGA10, CS97, Nag93, Tre97, MG09]. **Inverse-Based** [BS05f]. **Inverses** [BT99, BGMR01, GH97, HWS05, KRT16, LS20]. **Inversion** [AdSK19, AGHJ23, ADLW19, ASS16, BT21, BTGMS13, CCC17, CG21, CG17, CGMV05, DDE⁺20, DF21, GST12, HFL⁺16, Lee21, LYL⁺11, Luu15, MWBG12, MBVO13, OD12, PDC99, QQSvdG01, RT10, TH17, UDH23, YBM⁺18, dSGK⁺15, vLH14]. **Invert** [LPS10, ZTK19]. **Inverting** [GGM01, GMV99, Wei99]. **Investigate** [vD03]. **Investigation** [BV19, Dar21, Lan10, PBJ⁺96]. **Investigations** [LL00]. **Inviscid** [ABC00, FL02, HDF⁺19, In99, LH00, PM15]. **Involving** [AOR18, CG18, DTR21, DY23, FF05, KP09a, PDA09, RKvdDA14, SSW18, TWYZ20]. **Ion** [GST⁺99, XL20]. **Ionic** [XJS13]. **Ions** [GJLX16]. **iPSC** [Rot96]. **iPSC/860** [Rot96]. **IRBL** [BCR03]. **Iron** [HHP21]. **Irreducible** [XD21]. **Irregular** [BOPGF06, ILK05, JZ13, KK98, LQH21, Liu20, SKF18, SV03, WL04]. **Irregularly** [Har11, PYSG13]. **Irreversibility** [WW22]. **Irreversible** [ST22b]. **Isaacs** [BHT11, HW13]. **Isentropic** [Egg18]. **Island** [ABM⁺13, LL11]. **Islands** [BM95b]. **Iso** [YZ08, YZ07]. **Iso-Homogeneous** [YZ07]. **Isogeometric** [AB19, ABPW21, BPS⁺14a, BCdF⁺20, BDS20, CDPC13, DKS19, HLT16, HLNS19, PMCA15, ST16a, SD21, WSP22, dVPS⁺17, dIRRG19]. **Isometric** [BMP22]. **Isometry** [BBK06]. **Isometry-Invariant** [BBK06]. **Isoperimetric** [GS05]. **Isosurfaces** [Wal13]. **Isothermal** [RJLW20]. **Isotropic** [CMM⁺07, GLQ16, JLY08, KR14, KLY19, MMM⁺94, PABG11, SCC17, MMM⁺95, MMY96]. **Issue** [Elm98, Elm00, GW04a, JKR08, Tum10, Vas07]. **Issues** [DG98, FFMT96, HR05, Wan07a]. **Itô** [BRW10, GS14]. **Iterants** [BM95b]. **Iterated** [BL08b]. **Iteration** [AMM⁺10, AEFM17, AFK15, AP99, BBGS13, Bog14, BGH13, CGL⁺13, DH95, DEC05, DJLZ96, DHZ⁺21, DL22, EEO01, EMSW12, EN08, GGGL10, GW98, GY99, GWBW22, Gu15, GD07, HHLW15, JKM14, LM15, LP22, LLWxY20, LY13, LW20b, LR98, SQO02, TY00, Ver96, WMUZ13, YBHY15, YP98, ZMS21, vNLB04, Atk94, CGP93, LZ94, TT96b, Ver94, vd97]. **Iteration-Free** [Bog14]. **Iterations** [AD20, BDE08, CS98, Fer98, GPP95, HJ19, KMT98, Mit23, OS98, PL03, vLHH21, ES96, NP96]. **Iterative** [AGR20b, BBP21, BHN07, BGL08, BYZ19, BG10, BCC⁺15, BGS17, BER17, BC99, BMMT14, BC08, BC09b, BNFS13, CJH11, CH17, CH18, CHP20, CK23, CMK11, CJN13, CL21, CN10, CS17, CDPC13, CRV13, DW97b, DW98, DJMR23, Dax03, DS00, Den97b, DJ07, DYZC22, DHHR19, Elm98, Elm00, FB21, FFMT96, FS01, FS11, FDH⁺20, FJP⁺11, FKW13,

GLRS23, GH13, GRT05, dMGF17, GV98, GHS⁺15, Gri94, GO09, GrM10, GS97, GP96, HHRV93, Hag00, HW01, HS99b, HD15, HJJ22, HK95, JW08, JSV10, KR12a, KM98, LVWW03, LK93, LCBD07, LCN14, LW19a, LLX15, LLS22b, LY98, LR20b, LCJ96, LGH⁺13, MS07c, MKSG10, MM19, MK00, MS06b, MPW18, MSM14, MG12, MCJN94, MO21, MDG⁺18, MTBT17, NKLW94, Nat98, NAC⁺15, NS19, NFFP18, PNW16, PS13, PW98, PRR05, PF94, PR96]. **Iterative** [RW11, RH09, RtTBAI21, RV10, Rüd94, SS98, SG11, ST17b, SG95, Sim07, SH14, SC98, SZW20, Sun95, TET10, TW13a, TLT12, UA07, UEE12, Vas07, VW94, VO96, WPL⁺13, WX99, WYL⁺22, WNC08, WC17, XL20, XZLX22, Yan94, ZW94, vdVY00, Bia94, CN93, DS96, Lie93, MMPR93, PCDB96, Smi93]. **Iteratively** [BM01b, GNL21, KASL21, Lan10, RVA17]. **IV** [She99, ZLBC03]. **IV/MD** [ZLBC03]. **IVP** [vd97].

J [BEM94]. **Jacobi** [BHT11, CCFP12, CCF14, DKK21, DKS23, HW13, KK18, NZGK21, ZHL21, Abg09, AH04, BFS16, BL03c, CC16, CFR05, Drm97, FSvdV98b, GST19, Göt94, GI99, HT13a, HL10, Hoc01, HS99c, HJX15, HHLW15, HJ19, JP00, KNP01, LNSZ06, LT00, LPS13, MN07, MK00, NvdP00, Nov15, Nov23, RO18, RZTK⁺15, SB98, TW05, YDF97, ZS03]. **Jacobian** [AMB⁺94, CG18, CV98, GJP⁺14, Knu96, KR00, RtTBAI21, SBND11]. **Jacobian-Weighted** [Knu96]. **Jacobians** [PT08, TB99b]. **JCP** [DSA23]. **Jet** [BLGL11, PC21]. **Jets** [PL06]. **jInv** [RTH17]. **Joint** [AGSS19, MFSY19]. **Jointly** [Bar12b]. **Jordan** [Aru12]. **Joseph** [HLLM15]. **Journey** [SvdGP16]. **JSC** [DSA23]. **Julia** [KBG23, RTH17]. **Jump** [AM05, BMD016, CH08a, KL11, Lay06, LZ16, MEHL16, Toi08, Wan04, XW05, dFL05]. **Jump-Diffusion**

[AM05, CH08a, KL11, Toi08]. **Jumping** [CGM00a, KRGO19]. **Jumps** [DMR17, GDC⁺23, Kaw15, Wel17]. **Justification** [Li03].

Kac [DYZC22]. **Kaczmarz** [BW18, BW21, DHN17, DSS20, DHZ⁺21, HNR17, vLHH21]. **Kaczmarz-Type** [DHZ⁺21]. **Kadomtsev** [KR11]. **Kahan** [GSR19]. **Kalman** [KK16, LTT16, Lee21, LM14b, NRSD18, PMSI21]. **Kansa** [KCL16]. **Kantorovich** [DF10]. **Karhunen** [CML⁺18a, SA97, SAY03]. **Kármán** [CC97, CGM00a, DP03]. **Kawasaki** [CGO22]. **Keller** [HS21]. **Kernel** [AGI10, BMaK19, BzCS11, CCJ21, CD19, CP03a, Che13, CWA14, CL18c, DKDH20, DU19, GLS13, GJZ18, ILW17, JKY21, KS18, MXB15, MXYB16, MR07, NH18, Nas09, RLC08, SRS12, SL22, TY08, XKWY08]. **Kernel-Based** [AGI10, BzCS11, CCJ21, CL18c, GLS13, ILW17, JKY21, SL22]. **Kernel-Independent** [MXB15, MR07]. **Kernels** [AT19, ABP18, BV98, CCFG23, DEM⁺20, EY07, GHHH17, GR02, GP18, HM20a, LL22, LCD14, LXZ20, Pla15, PS01, WMSG09, ZZZ21, DR93a, Goe97]. **Khatri** [DMM20]. **Killed** [DYZC22]. **Kind** [CP03a, CP05, NKLW94, ZCP06, ABCR93, Atk94]. **Kinds** [ZFZ14]. **Kinematic** [BMV13, PDC99]. **Kinetic** [AT20, BK18, CL18a, CHL16a, CHL16b, DP10, FY14, FR15, GV16, GKR16, GC16b, HHLZ21, Jin99, Kla98a, Kla99, LS12a, LFH19, LS13a, LM08, LM12, LXL11, MBS22, PL21, WT23, WMC11, WY19, Xu99, YJ13, YHS07, BPR13]. **Kinetic-Diffusion** [MBS22]. **Kinetical** [Dor98]. **Kinetical-Consistent** [Dor98]. **Kinetics** [CE16, IP06, YS16, Ver94]. **Kinks** [BG20]. **Kirchhoff** [GSV18, GSV21]. **KKT** [AVBTG17, KRT21]. **KL** [LZ04]. **KL-Based** [LZ04]. **Klein** [BDZ13, GMYL23]. **Knot** [BB15c]. **Knots** [PS03]. **Kogbetliantz** [Göt94]. **Kohn**

[DLY17, DL20a, LY13, YMW07]. **Koopman** [DMM19]. **Korteweg** [Yan22]. **Kou** [Toi08]. **Kriging** [CDW14a, CDW14b, YTT21]. **Kronecker** [BL03b, BD05, DO15, FT03, Ull10]. **Krylov** [BG05a, BG05b, CGK⁺98, CC12a, KWG⁺20, MPS09, PBC05, AA02, AGHJ23, BvG15, BBM11, BG05a, BKT21, Bot23, BHP94, CR16, CKD13, CCSY98, CPS11, CS14, CG19, DKZ09, DLZ10, DR13, EEO01, EN08, EN09, GW17, GY02, GOS12a, GT19, GD07, GVMM14, HL98, HPS22, JMM10, KFR21, KR17, KR99, KVMK01, LMRS15, LMT18, LL08, LWZ13, LBHH22, LT14, MR17, MB17, Mou20, NG18, OKdSG17, OW00, PS02, PF12, PdSM⁺06, PT01, Ruh98, SBK13, SSM16, SW01, ST94, SS03, Soo16, TE07, Tor12, TS14, VMM13, Wal99, Wei94, ZG23, ZYSL15, dSO21, vdVY00]. **Kullback** [PSSW15, SKO21]. **Kuramoto** [APS12, PWM22]. **Kutta** [CSS93b, Cas05, VS04, Zbi11, AGC96, AM17, AGH00, BM17b, BR09, BPR13, BBM⁺15, BRW10, CQ22, CHAMR06, CGAD95, CL23, EM96, EG22, Fis19, GMM15, HMR09, Jay98, JWC21, Ket08, KCB17, LLJF21, MNS07, McL07, MRS14, MHW22, OS98, PT99, PPR05, PKD13, Pat97, QS05a, QS05b, RHL⁺21, RSD⁺20, RM08b, SS93a, SKPD22, SKP22, TVA02, TLT12, TP99, VV05]. **Kutta-Based** [GMM15]. **Kutta-type** [AM17].

L1 [XZ23]. **Label** [SMR16]. **Lack** [BCCI98]. **Lag** [PT99]. **Lagrange** [PBC05, BB15a, BS15a, BLS14, BG05a, BG05b, CC12a, CS23, GLL01, IT09b, KL15, KMW99, KW00, LC21, LNS15, YHC16]. **Lagrangian** [BW11, AT17, ALMT20, AS16, AVBTG17, And17, AHH12, AHR12, BMTZ13, BSMM16, BO06, BP13a, BF14, BCV13, CQ22, CPH14, CTB15, CDF18a, CF07, CJY16, DKR12, FCR93, FMW19, FGO20, FL08, GT06, GPSY17, HM10a, HVK18, ISS19, KMER22, Kor15, LFM22, LL02, Lay03, LW20a, LL94, LH00, MABO07, MR17, MB17, NSK10, OB08, PS19a, Ros05b, RLM⁺00, STCK21, hSSW23, DFK23, WLE⁺00, WZET13, Wic17, ZD19, ZCQQ21, dFL05]. **Lagrangian-Based** [BW11, BO06]. **Lagrangian-Remap** [BCV13]. **Laguerre** [BS05c, BLS09, DJLZ96, LZ94, LZ99b, Nik00]. **LAMG** [LB12]. **Laminar** [JMN01]. **Laminated** [Li03]. **LAMMPS** [WSA16]. **Lanczos** [WXS19, ARMNW10, ADRS95, BCR03, BR05a, BF01, CKD13, DGK98, rFS12, FGN93, GH15a, GJ17, GT94, JN10, LXV⁺16, MS93b, MN11, Ng00, PPS22, RG98, SZ00, Ste02, YC99, ZTK19, ZS18, ZMS21, vdEH05]. **Lanczos-Based** [CKD13]. **Lanczos-Type** [RG98, ZMS21]. **Land** [HPR22, XK08]. **Landau** [AB16a, AHK⁺17, BBP13, CS23, DJT08, GS16, LM05b, LWW20, Mu97, MDC98, NR98, VO19]. **Landscape** [GCN21]. **Landweber** [BDE08]. **Langevin** [AWA⁺18, CDK21, KM11, Lau22, LS22, ST22b]. **LAPACK** [AMT10, DMPV08]. **Laplace** [ACN19, BS94, Bar14, BWV15, BSS17, CK03, Che13, DYZC22, ED95, Nak98, OK13, Pet01, WLZ18, Wei99, YCZ13, ZV22]. **Laplacian** [AN17, AG18, ADS21, AO17, BLV17, BGL⁺21, BI00, CQZ17, CS16, DS20, GGM01, GN22b, HKL23, LB12, MY20, NN17, TWYZ20, WZGO21, XEG06, vGEV07]. **Laplacians** [HWZ21, SXK17, XCLQ20]. **LAPW** [SDNC20]. **Large** [AVBTG17, ACG20, AL07, BCR03, BS05a, BW18, BW21, BST08, Ban08a, BS05b, BOR97, BSSW13, BBKS20, BT03c, BHT09, BPSV15, BDF08, BTY08, BESS19, BS99b, BCL99, BMPS22, BTWG08, BTGH12, CFR05, CDGS05, CGK13, CCQ16, CN10, CP15b, CS17, CG17, CSW10, CFM98, DDMQ18, DS00, DD00, DJT08, DLP05,

DKZ09, EAS08, EPE05, FWA⁺11, FSvdV98a, FB95, FGH⁺08, GGS19, GLSTV16, GSR19, GN23, Gug16, HN19, HMST11, HMAS17, HPS08, HLS98, Hof04, HL17, HJ19, JR19, JN10, JZ13, JSZ22, KFR21, KS20, KV13, Kus97, Lab05, LM00, LAG14, LT09, LWG10, LZ13b, LXdH16, MGDB19, MWBG12, MS04, MW01, Men22, NNRW09, NvdP00, NLY23, OKF14, PS18, Pen00, RZTB22, RS02, RMD08, RM08a, Ros15, Ruh98, SBR06, SWW08, SWB16, ST17a, Sim07, SC02, SvG08, SVX15]. **Large** [Tor12, TS14, VDD19, WPL⁺13, WWYX20, WYL⁺22, WM05, WT01, WS15, WRS17, WXS19, Xia13, Xue18, YPN⁺01, YGB⁺05, YMM14, YSK19, ZYSL15, ZCC⁺16, AMB⁺94, BHP94, Dax93, DLG97, JS93, ST94, TW93]. **Large-Eddy** [BST08, EAS08]. **Large-Particle** [SC02]. **Large-Scale** [AVBTG17, BCR03, BS05a, Ban08a, BSSW13, BBKS20, BHT09, BTY08, BCL99, BMPS22, BTWG08, BTGH12, CN10, CP15b, CS17, CSW10, DDMQ18, FWA⁺11, FB95, HMAS17, HPS08, JR19, KFR21, KS20, LT09, LWG10, MWBG12, Men22, NLY23, OKF14, PS18, RS02, RM08a, SBR06, SWW08, SWB16, Sim07, SVX15, VDD19, WWYX20, WYL⁺22, WM05, WT01, WRS17, Xue18, YPN⁺01, YGB⁺05, YMM14, ZYSL15, ZCC⁺16, BESS19, BHP94, ST94, TW93]. **Largest** [HR16]. **Laser** [CBK18]. **Lasso** [AW21, KASL21, WYL⁺22]. **Latency** [GAMV13]. **Latent** [ZS99]. **Lattice** [BS08, BYK05, BGGM22, CLDS19, CKN06, DSB99, Del14, FKK⁺14, HHSW11, HHR23, HLL00, HYC15, HYC16, JK00, LL03b, Rei18, Rei20, SR16, SBX⁺08, SSR⁺22, WS06, Wan07b, ZZY20, Elt96, MDA22]. **Lattices** [SLO13, SSN19]. **Launch** [EHW00]. **Law** [AGH00, CHR02, DMZ21, FMR06, G GK⁺04a, ISS19, TW17]. **Lawrence** [DG99]. **Laws** [AB02, AD06, BLMR02, BF16, BBSW94, BGGM22, BPR99, BT20a, BBC⁺21b, Bur23, CGV18, CW13, CW14, CW16c, CLL13, yCWHJ12, CK94, DGLW16, DS16, DBSR17, DB07, FK19, FK21, GR05a, GB12, GMS02, HH02, HBL05, HC20b, JT98, JSZ13, KL00a, KNP01, KPP07, KPW17, LPR00, LPR02, LLLX16, LD16, LST20, LN03, Mar94, NMAB11, PPR05, PPRS19, QS18, QS08b, SL11, ST17a, SMR01, SJD14, TW12, Tor12, TLE12, TW95, WDG⁺18, YHQ12, ZD19, ZQ17, dLRT09, BH97, Pem93]. **Lax** [JSZ13, Kol99, LD16, MR01, QS03]. **Layer** [AK09, AH09, ADM⁺15, Bar14, BWV15, BHNPR07, BS06b, CKK20, CM98c, FV06, Far01, HKB21, KP09b, LG09, LXYZ23, TT96a, WK18, YWG21, ZV22, aKT18]. **Layered** [CCC18, DG99, GL22a, HIT19, LLS19, LXYZ23, WZC19]. **Layered-Medium** [LXYZ23]. **Layers** [BK18, Dur16, Gar94, HMRR19, LM12, LS12b, Luo19, MT19b, RH06, TW96]. **Leading** [Che05, LLW19]. **Leaf** [KTB14]. **Lean** [LB12]. **Leapfrog** [Tie18]. **Learned** [HLP21]. **Learning** [ACD23, ASR⁺23, ALM22, AT23, BGM09, BCP15, CHWY23, De 12b, DHL⁺23, DTR21, EPSS22, GHK14, GRPK19, GDB⁺22, HRP20, HHZ22, HKLW19, HKLW21, HLX23, JML22, LL22, LCG21, LC²23, NZGK21, PWM22, QCJX21, SM19, TP21, TPQD22, TWJ⁺23, UWWP23, WZB⁺23, WRB⁺15, XKKN22, YDK22, ZGK20, dBMZ11]. **Least** [AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, AS22, ALMR17, AD15, AMT10, BLH02, BGM13, BT03c, BDKR21, BS99b, BW96, BKMM10, BLM03, BMMT14, CLMM00a, CLMM00b, CPV95, Car10, CHP20, COS21, CAS11, CC19, CP17, DDF⁺21b, DMMO04, DMMO05, DG98, DP20, DL23, DMM20, DSS20, EHS⁺07, FMM98, FGHO97, FS11, FNB06, GW17, GI17, GKK15, GNYZ18, HN22, HLMM06, HLM⁺09, HP21, Hok17, HM20b, HY10, HY14, HJLZ18, JR19, KR18, KMS15,

LSH17, LMMR00, LFB13, Lee14, LM15, LMM17, LRS02, LD11, MWY17, NP14, NP17, PE00, PP97, PBtTB⁺15, QOQOP99, RDB16, RtTBAI21, ST16b, ST17b, Sco17, ST19, SX16b, SMYS21, Sta00, Str93, TZ14, TLH21, TBO10, WWYX20, Wat98, WPT17, XS16, You94, YYWY18, ZCC⁺16, ZWZ⁺13, ZNX14, ten95, BR95, Dax93, NP96].

Least-Degree [NP17]. **Least-Squares** [AMM⁺11, AV14, ALMR17, AD15, AMT10, BGM13, BDKR21, BKMM10, BLM03, CPV95, COS21, CC19, CP17, DMMO04, DMMO05, DG98, FS11, GNYZ18, HN22, HLMM06, HLM⁺09, HY10, HY14, JR19, KMS15, LMMR00, Lee14, PBtTB⁺15, RtTBAI21, ST17b, Sco17, ST19, Sta00, TZ14, WPT17, XS16, ZNX14].

Least-Squares-Based [MWY17].

Lebesgue [LCE22]. **Legendre** [BK00a, BMF12, Bog14, EJJ08, HT13a, HT14a, HT14b, IBM01, JM18, She94, Swa02].

Leibler [PSSW15, SKO21]. **Leja** [CKOR16, FLU⁺20, NJ14]. **Lemma** [CV94].

Length [CS23, MH16]. **Lens** [LW20b].

Leslie [CGGS15]. **Level** [ARS21, AJR23, AGHJ23, BC10, BP13a, BH11, BSX22, Bre00, CDG03, CGG07, CGL01, CDM⁺13, Cho09, CJ05b, DS00, DKPS17, DV20, EPV94, Fai03, FHFR13, FM07, HKR16, HL20, HRR23, HHvR03, KKV13, KKP14, KL15, KS13, KKK18, Lan98, LCG21, LQH21, LYLC17, MB17, MO00, MO10, MvdM21, NKM10, QL06, RS00, SF99, TKW08, TWJ⁺23, Tu07, VZA⁺23, Vog16, WHL18, WWM03, Wen10, WZ19, ZCE06, Cai93, LWSP22, NCV06].

Level-Set [AGHJ23, CDM⁺13, LCG21, LQH21, RS00].

Levels [ABB⁺16, RNR16]. **Levinson** [Str00a]. **Levy** [SB13, BLM22, CD15b, GDLS14, IT09a, LZ16, LFBO08, ZK14c].

Liapunov [CCJ07]. **libMesh** [BS16a].

Libraries [DARG13]. **Library** [BMaK19, BS16a, BKH⁺22, CGC21, KVV23, LXES19, MXYB16, NAC⁺15, PMCA15, RTR⁺16, ZS14]. **Lid** [TVV11]. **Lid-Driven** [TVV11]. **Lie** [MW08a, Mis01]. **Lifshitz** [BBP13, AB16a, CS23, GM20]. **Lifting** [SV03]. **Light** [GPZ17]. **Lighthill** [BCV13]. **Lighthouse** [JMNS16]. **Lightning** [BT22]. **Lightweight** [DKKP14]. **Like** [BGOD08, CL21, DMML05, JL20, KO99, KP11, KLZ22, WG00, WM11, ABCR93, BN13].

Likelihood [ACW12, HXW22, TV98a, Zim13].

Likelihood-Free [HXW22]. **likelihoods** [WTS94]. **Limit** [ACO98, BS18a, BCK16, BPR13, CDN16, CHL16a, CHL16b, DJT08, DLV17, DPS18, GKD05, JLY08, KSB11, Kla99, LS12a, LM08, LS23, ZD09].

Limit-Cycle [KSB11]. **Limitations** [RLG98]. **Limited** [BL03a, BKS16a, BGR16, BLNZ95, GG09, KLS08, LM99, LWZ13, MIS03, SSDN12, Sta07, SM07].

Limited-Memory [BGR16]. **Limitier** [AS06, GK19, JX13]. **Limitier-Free** [AS06].

Limitiers [MB13, QS05a, QS05b, Ser06, Zen16, vdVXX19]. **Limiting** [GB12, GNPT18]. **Limits** [GV16, XS08].

Line [BD99a, HV96, LZK17, OS15, PR22, SV08b, SV21, YY18, ZHDZ17, HHRV93].

Line-Relaxation [HV96]. **Line-Surface** [SV08b]. **Linear** [ARMNW10, AB08a, APSG14, AS18, AW20, ABST13, AHT12, AF11, ABE⁺17, ABCP08, ACD95, AD15, AKM⁺13, ACW21, BGLY05, BW18, BW21, BS95, BDJ05, BCCI98, BH20, BvG15, BDdSM11, BL04b, BM95a, BT98, BBKT15, BM01b, BHK14, BCCK16, BW96, Bre99, BC99, BCMM03, BMMT14, BC08, BC09b, BK11, BMPS22, BS23b, Bur23, BEPW98, CS99, CLMM00a, CLMM00b, CPW15, CGL⁺13, CB98, CGG07, CJH11, CdSG21, CH17, CH18, CNP12, CS96, CN99, Che98, CJGX15, CYZ17, CLB21, CG10, CLN12, CF05, CHM02, CS10c, CPD17, CFM98, DDF21a, D'A00, DLY14, DB98, DH01, DHN17, DMMO04, DH21, Ded10,

Del14, DKXS18, DMRR19, DS14, DHZ⁺21, ES18a, Ema10, EOZ94, EMNS20, EGKS94, EPSU09, Ett16, FGMP13, FGMP14a, FGMP14b, Fan22, FH06, FWA⁺11, FT03, FMR06, FG98, GG13, GHMY18, GvdV17, Gee19]. **Linear** [GMvdV19, GNL14, GG03, GZYW18, GB98, GG05, GPA18, GGB22, GOS03, GT19, GN23, GLMS22, GW00, HR05, HN19, HS06a, Hag00, HCRT13, HN06, HAS20, HZ10, HPZ19, HM20a, HP21, HG12, Hof04, HRS12, HDF⁺19, HSCTP04, JFG10, JZ13, JSZ22, JP08, Jou94, Kas95, KLR98, KZ00, KP21, KM18, KW00, KR06, Kra08, KSV16, KMR19, KMRW97, LM00, LV98, LFH19, Lee13b, LR20a, LM08, LM17, LLZ08, LLZ09, LSN17, LZ21b, LW12b, LZK17, LXdH16, LB12, LKBJ18, LCJ96, LN04, LvL21, MPS18, MKSG10, Mar09, MB02, MRB23, MKB22, MYN20, Meu11, MW13, MN11, MZ19, MGW00, Nat98, NP08, NMFP16, Ökt05, OD12, PNW16, PDH09, PdSM⁺06, PSB⁺06, PL21, PSA99, PBJ⁺96, PMSB12, PN19, QOQOP99, Rah96, RG07, Roe98, RX18, RTR⁺16, RKW20, SZ99, SS99, ST08, SBP04]. **Linear** [ST16b, ST17b, Sco17, ST19, SX16b, Sma04, Smi97, SvG08, SKPD22, SSC⁺15, SCW⁺17, Sta94, SO10, Str93, Sun95, SSB08, SW10b, TCZC19, TT07, Ton94, TMA23, UDH23, VBT99, VM13, VK13, WLX⁺13, WM05, Wil09, WC17, WG19, WCG23, XS17, Yan94, ZGA10, ZTBK18, Zha97, ZV05, ZS14, ZYSL15, ZSB16, ZHY21, ZP20, ZCQQ21, ZSPL21, ZGG17, ZFHS15, ZTM⁺16, Zim14, ZLJ96, Zin00, dSL05, AM95, Atk94, CV93, CW97, Fre93, JS93, Kor93, LV94, LJ93, Lie93, Pol16, Rán93, WTS94, YZ05]. **Linear-Quadratic** [Ded10, HN06, PMSB12, CV93]. **Linearization** [HRvdZ22, HAN19, KT15, Slo02, vdZvBdB10a, vdZvBdB10b]. **Linearized** [BTGMS13, BT16, HG02, HNS08, HBS00, KLN20, Mu97, OB08, WY12, WY13]. **Linearizing** [AM22]. **Linearly** [BBM⁺15, EL20, GNS22, GKL08, LST07, ZLZ22]. **Lines** [CCC17, HRT13, KMT98, WYT18, WH13]. **Linesearch** [BS03, Toi96]. **Linkage** [CCS⁺19]. **Linked** [CDY07b]. **Lions** [HJN17]. **Liouville** [AF15, Bou01, LV10, YJXZ22, ZAK15]. **Lippmann** [ABIGG16, LY18, ZNZ16]. **Lipschitz** [HC21]. **Liquid** [AAB⁺15a, AEMM16, BLGL11, CYZ17, MMRN15, RG13, VPP05, ZWWZ21, ZYLW16]. **LMF** [Ber00a]. **LMF-Based** [Ber00a]. **Load** [BB17, Bas98, ÇKAA22, GPTV15, Ten98]. **Load-Rebalanced** [BB17]. **Loads** [ACO98]. **Lobatto** [GK11a, PZPR07]. **LOBPCG** [DSYG18]. **Local** [AMM⁺11, ABH03, ABHS22, AM17, BYL13, Bla97, BVV08, BHM19, BHM⁺21, BEOR17, BS18b, BG04, CCF14, CL11, CJGX15, CML⁺18a, CML⁺18b, DTY20, DG09, Doh07, EL20, EN16, EPV94, FS22, FRS19, FMB13, GGKM07, GMM15, GX16b, HRP20, HRD21, HW21, JP16, JK11, JED10, Joe95, JK21, KKK16, Kan03b, KRGO19, LZ02, LJ95, LQZ22, LWSP22, MRS18, Mar94, Mau95, NXDS11, PDC99, QL06, Sch10, SStM23, SP16, TX17, TVV11, TBH23, TT20, TEE⁺17, WI12a, XS08, YCZ13, Yu01, YSZ14, FCR93, Joe93, TV93]. **Locality** [ABKS16, AKA13b]. **Localization** [EMM⁺99, GM14b, SBR06, TP18, VP11]. **Localized** [AP19, CF00, DLY17, DFQ14, HM14, KR23, OS15, PBWB14, RAB⁺14, ST23, WLE⁺00]. **Locally** [ARM⁺19, AHR12, AMP00, DLM16, EÜ09, HHMDC18, Kny01, KALO07, LZ17a, LLW16, MS13, QZZ19, Sha99, Str95, SL09b, Tor05, VK15, VYX16, Wan01, Zha18b, Zha22a, Zim14, Ain96]. **Locating** [FD03, KV96, KMV99]. **Location** [ABD⁺17, GS12, HKLW19]. **Locking** [Mee01]. **Lodgepole** [WP98]. **Loève**

[CML⁺18a, SA97, SAY03]. **Loewner** [AGI16, GPA18, IA14, PGW17]. **Log** [CSZZ20, KASL21, UEE12, WR13, CSB⁺18]. **Log-Composite** [KASL21]. **Log-Normal** [WR13]. **Log-PCA** [CSB⁺18]. **Log-Transformed** [UEE12]. **Logarithm** [AMH12, AMHR13]. **Logarithmic** [AS05, AS06, CP03a, KKT13]. **Logarithmic-Kernel** [CP03a]. **Logically** [CH09a]. **Logistic** [TTY16]. **Lognormal** [RNV17]. **Long** [DD23, FTY15, GASSS98, Gob08, GKRB16, HS97, Jah04, LLL08, LT21, XKWY08]. **Long-Range** [LT21]. **Long-Term** [DD23, HS97]. **Long-Time** [Gob08, GKRB16]. **Long-Time-Step** [GASSS98, Jah04]. **Longest** [HO15]. **Longtime** [HWZ19]. **Look** [Cho09, FGN93]. **look-ahead** [FGN93]. **Lookup** [CWG10, GBS19]. **Loop** [AHN⁺20]. **Loops** [AL99b]. **Loosely** [BKFG19]. **Loss** [HHP21]. **Lossless** [AKW17, WH13]. **Low** [AAB⁺15b, ABLM17, ABLM19, BK16, BMF19, BKS16a, BT03c, Bja19, BKS16b, BDS20, BSS21, CCY23, CA16, CD19, CW18, CL23, CLLY20, CGMR05, CL08, CC18, DGLL21, DM13b, DHHR09, DKXS18, DLV17, Doh21, DS17, DBA19, EPSS22, EL18, Ein19, EL19, EHY21, ERSZ17, Elm99, ES19, FWA⁺11, FM16, Fu21, GU17, GNL14, GN19, dMGF17, GCD18, HM19b, HP19, HGZ17, JWC21, Ket08, Kir14, KP22, KSU14, KSV16, KMR19, KPU21, KEC23, LE17, LS13b, LJ17, LLWxY20, LT21, LLJ22, MKB22, NBA⁺14, NRO22, Paz20, PKD23, PW15, Peh20b, Pel18, Pen00, PCD17, RO15a, RO18, RZTB22, RAT18, SZ00, SSC⁺15, SB15, SH20, SV21, TYUC19, UWWP23, VD10, WS05, WLL⁺15, War13, ZZL22, ZHS10]. **Low-Complexity** [Kir14]. **Low-Dimensional** [CL08, EPSS22, Peh20b, UWWP23]. **Low-Frequency** [ERSZ17]. **Low-Mach** [CLLY20]. **Low-Memory** [JWC21, SH20]. **Low-Order** [BMF19, CW18, Doh21, KP22, Paz20, PKD23, ZHS10]. **Low-Profile** [DHHR09]. **Low-Rank** [AAB⁺15b, ABLM17, ABLM19, BK16, BKS16a, Bja19, BDS20, BSS21, CCY23, CA16, CD19, CL23, DM13b, DS17, DBA19, EL18, Ein19, EL19, EHY21, ES19, FWA⁺11, FM16, GU17, GNL14, GN19, dMGF17, HM19b, HGZ17, KSU14, KMR19, KEC23, LE17, LS13b, LLWxY20, LT21, LLJ22, MKB22, NRO22, PW15, Pen00, PCD17, RO15a, RO18, RZTB22, SZ00, SB15, SV21, TYUC19, ZZL22, KSV16, SSC⁺15]. **Low-Storage** [CC18, Ket08, War13]. **Lower** [BGS17, Bre00, CXY10, HP21, Hok20, LQX14, SDH21]. **Lowest** [Ain07, BBKT15, DK98, LTW18, MMA98, DHM⁺23]. **Lowest-Order** [BBKT15, DK98, LTW18, MMA98, DHM⁺23]. **LQR** [BBKS20]. **LSMR** [CP15b, FS11]. **LSRN** [MSM14]. **LSTRS** [LRSV11]. **LU** [CP15a, CKLN98, GDL07, GBDD10, GCD18, KN21, PT08, WZSL12]. **Lubrication** [GB06a]. **Lumped** [BCF13, GMvdV18, GMvdV19, KLJ10]. **Lumping** [Sch13]. **Lyapunov** [EL01, EMSW12, Kue12, LW16, PS18, Pen00, Sim07, YWL17]. **Lyapunov-Type** [EL01]. **M** [AFF⁺15, BOF16, EZ11]. **M-Matrix** [EZ11]. **M/EEG** [AFF⁺15]. **MAC** [HLW13]. **Macaulay** [VD23]. **Mach** [BQRX22, CLLY20, DLV17, NBA⁺14, Pel18]. **Machine** [ASR⁺23, BP97b, BGM09, GRPK19, HKLW19, HKLW21, ST94]. **Machines** [BDS98, BZ12, BFJ00, GAMV13, TW93]. **Macro** [JS10, LLS13, LM08, LM12, MBKR22, PV08, VS23]. **Macro-Elements** [PV08]. **Macro-scale** [MBKR22]. **Macroscopic** [BK18, Cha07]. **Made** [GG09]. **MADNESS** [HBB⁺16]. **Magma** [RWKW14, RWWK15]. **Magma/Mantle**

[RWKW14, RWWK15]. **Magnetic** [CPH14, CCL⁺20, DEM⁺20, ST03]. **Magnetohydrodynamic** [CLTX15, HRT13, NH14, Ros06b, Tor05]. **Magnetohydrodynamics** [AMMR10, AMM⁺10, ABM⁺13, ABC⁺16, ABC⁺21, ALJ99, BT06, CCJ21, CRS21, CFJT18, DW97a, DW98, Gur04, LFM22, NvdP00, WG20, WS18, ZMC94]. **Magnetostatic** [Lab05, PSA99]. **Magnetostatics** [BBMR03, GLL⁺15]. **Magnitude** [CLNZ16]. **Magnus** [KM19]. **Makes** [Ske09, WJW21]. **Making** [JZ13]. **MALA** [TMM20]. **MALA-within-Gibbs** [TMM20]. **Malliavin** [CPG20, WR13, ZRK15]. **Management** [LMKG16, PWG16, YCN21]. **Mancino** [CPG20]. **Manifold** [BBSW16, MRSS14, RPM23, SCW23, Sma01, TP21]. **Manifold-Valued** [BBSW16, SCW23]. **Manifolds** [BCF01, BGH23, CEOR18, DH16, DG20, LL17, LLD99, LSU11, LYLC17, NRO22, QZZ14, RO18, SWN20, SW22a, SW22b, WS95, ZZ04, Zim20, vVKA11, RST93]. **Manipulation** [MBM⁺16]. **Mantle** [RWKW14, RWWK15]. **Manufacturable** [SSW12]. **Many** [AL99b, BKK18, CL18a, DGK23, GH15b, GKN18, KMV05, LXZ20, OT09, RTR⁺16, SM07, XCS16, vdDA12, RKvdDA14]. **Many-Body** [CL18a, LXZ20, XCS16]. **Many-Core** [GKN18, RTR⁺16]. **Many-Particle** [BKK18, GH15b]. **Manycore** [FKMR19]. **Map** [CV16, CRV14, vdZvBdB10a, BG10, CPP⁺17]. **Mapped** [CW16a, GSW17, HHSY22, LO14, Lem16]. **Mapped-Grid** [Lem16]. **Mapping** [Ama98, BT03b, Ban08b, DP98, DS97, DV98, GH14, HW94, HL95, MYN20, Nas09, NAS13, Por01, WK18, YCN21, ZF14, Zha18a, de 99, CDH97, PS93]. **Mappings** [AAB⁺16, And08, DLTZ06, HQR19, Vas10]. **MapReduce** [CGHT14, KPP⁺14]. **MapReduce-enabled** [CGHT14]. **Maps** [CGGP19, EL01, EL03, GGKM07, HT09, NXDS11, NS21, SO15, VO19, dSGS22]. **Maps-Based** [dSGS22]. **Marching** [ABMR11, BZ15, Cho01, CDGT01, DBC13, KM97, PC21, Yan19, TN16]. **Marine** [SBMR18]. **Marker** [MCT⁺05, NKM10]. **Markov** [BLM22, BBB⁺11, BKS16b, CKBT16, CE17, Day98, DS00, DMM⁺08, DMM⁺10b, DMSW10, DMM⁺10a, EHL06, FVV21, GaP08, KTSB19, Kus97, SBM07, TY11, VS23, WZGO21]. **Markov-Modulated** [BLM22]. **Markovian** [BD05, Peh20b]. **Martensitic** [NWW97]. **Masking** [GTK⁺17]. **Mass** [AJ21, AJ22a, AH06, CL97, CD20, FNL⁺19, FL19, GMvdV18, GMvdV19, GMYL23, HRT10, HLMM06, HLM⁺09, HCX22, KLY05, KLY07, KWD22, LR12, LP03, MRI21, MR17, RCLO18, Sch13, SBHS19, ZS23]. **Mass-** [GMYL23, MR17]. **Mass-Conservative** [FL19, MRI21]. **Mass-Conserving** [CL97, HLMM06]. **Mass-Lumped** [GMvdV18, GMvdV19]. **Massive** [BSV19, KPP⁺14, MDC08, PVK16]. **Massively** [BRK16, CFM98, DGR⁺17, FNL⁺19, GCB15, GAMV13, HW94, HGRW16, JHJ12, KMER22, KR22, Pip13, SR16, ZSD⁺10, MH95]. **Master** [DHJW08, Jah10]. **Matched** [AH09, BHNPR07, CM98c, Dur16, HMRR19, LXYZ23, Luo19]. **Matching** [Ami94, ABL⁺20b, DHPAH19, GLT18, HW01, KH00, KPP⁺16, LLS19, San10, SSJB17, WPGR13]. **Matchings** [HS06a]. **Material** [ADK⁺18, BW01, HHLZ21, SPS18, Sha21a]. **Material-Energy** [BW01]. **Materials** [AHT17, AFMP15, EIL⁺09, SP03, SBX⁺08, WRB⁺15, YHFG22, ZCW10, TCCK18]. **Matérn** [CWA14, JKL22]. **Mathematical** [ACCP13, BHN10, GLL01, GR04, GKT09, KK13]. **Mathematics** [Mar01, WKM⁺07]. **MATLAB** [BK07, BT04, GKD05, MRK20,

SR97, Wal18]. **Matlab/C** [Wal18].

Matrices

[AKA13a, ARS21, AJ22b, AJR23, AT15, APÇ04, BDD⁺97, BN05, BGL06a, BK16, BOR97, Ben01, BHT00, BDvdG05, BC13, BL99, Bör07, Bör09, BTK19, But13, BHK20, ÇAK11, Che13, CGMR05, CV98, DLP05, DHHR09, DPV05, Di 97, DHM22, DW05a, EK10, FH21, FS08, FKN⁺20, GWMG03, GMvdV19, GSR19, Gug16, HMAS17, Han95, HJS99, HK00, HWS05, HLTT97, Ips01, JN10, JP11, KGA23, KKT13, KKLS05, KLST06, KS07, KS23, KOV15, KMSM14, LLHF13, Lee13a, LSC03, LS13b, LNC05, LYL⁺11, MO08, Mar16, MV16, MMR19, MRK20, Meu01, Mön08, NP10, NL99, Nik00, Not00b, OX22, PKNS14, PCD17, QS08a, RT99, Ros15, Saa96, SCTP04, SO18, SSH06, UA04, UA07, VD10, VL10, VK15, Vir07, Wan97, WS15, Xia13, Xia21, XC13, ZGA10, AMB⁺94, BW93, CS97, Di 95]. **matrices** [FS96, FF94, FGN93, Gut93, Jin95, Lan93, May08, Nag93, NCV06, Tre93, Tre97, BM12]. **Matrix** [AJ21, AJ22a, AKA13b, AA14, AMH11, AMH12, AMHR13, AMHR15, AM18, ARM⁺19, ABBT⁺20, ADL⁺12, ABLM19, ACW12, AKM⁺14a, AD15, AVW13, ABB⁺16, BBP21, BCT07, BSH16, BDM⁺18, BGM13, BSS09, BDKR21, BF95, BFK03, BLM22, Bja19, BC13, BESS19, BCK22, BGH13, Bot23, BTK19, Bru15, BG12, BSS21, CCY23, CKOR16, CA16, CD19, tVÇAU10, Che16, CIZ16, CL08, CGI11, DM16, DKGS15, DN97, DKK⁺19, DHP17, DGB15b, DGK98, DKW19, DCP11, EZ11, Elb06, EBSS⁺11, FHH⁺18, FMYT16, FHL⁺23, FK00a, FSvdV98b, FS08, FKRH22, GH15a, GSO17, Gar97, GKM⁺17, GCG⁺19, GG21, GT94, GG94, GWBW22, GHS⁺15, GKN18, GCD18, GL10, GG95, Hag02, HW94, HR14, HR16, HK17, HPZ19, HC21, Hös94, ILW17, IL16, KXH21, KR17, KT15, KAU18, KL94, KP11, KS20, Kna98]. **Matrix** [KR00, KR22, KRDL18, KMR19,

KHW⁺14, KV13, LS20, LV98, LPS10, LLWxY20, LSY21, LXdH16, LXG⁺21, LLJ22, MV00, MKSG10, MB99, Mat95, MDM15, MAK20, MZWG16, NH18, Ng00, NRSD18, NRO22, OKLS15, OD12, Paz20, PSS17, PV94, PV95, QQSvdG01, RO18, RX18, RN14, Ruh98, RCLO18, SIDR15, SvdGP16, SZ00, Sim07, SLO13, SQO02, SSR⁺22, TS11, TW13a, TYUC19, TPT⁺16, UA04, Van20, VSS14, VD23, WSZ14, WLL⁺15, WH09, WP20, XC20, YPHH17, YB09, Zha96, ZJX14, Zim20, vVKA11, vdEH05, BR95, Jam96, Nat97, OA93, YL93]. **Matrix-Dependent** [Kna98]. **Matrix-Free** [ARM⁺19, BDM⁺18, BGM13, BDKR21, FK00a, GCG⁺19, KR22, KRDL18, LXdH16, MAK20, Paz20, vVKA11, ACW12, Bru15]. **Matrix-Matrix** [AA14, BG12, GHS⁺15]. **Matrix-Valued** [GG21, DGB15b]. **Matrix-Vector** [AKA13b, KHW⁺14, KV13, LXG⁺21, MDM15, UA04, WH09]. **Max** [GG94, GG95, HSTH18]. **Max-Min** [GG94, GG95]. **Max-Plus** [HSTH18]. **Maximal** [TCDS21]. **Maximization** [ZLWZ18]. **Maximum** [ACW12, AW11, BI09, DGS08, FH06, FK19, GY09, IMS96, JX13, LI01, LLLX16, LYZ20, LLJF21, ILTZ21, LY14, RGG15, SY18, TV98a, WBTG18, XQX15, YCY19, YWL21, ZLS12, Zim13]. **Maximum-Principle-Preserving** [XQX15]. **Maximum-Principle-Satisfying** [LLLX16, LY14, ZLS12]. **Maxwell** [APZ13, AHZ17, ACHZ21, AA02, BBB14, BGH⁺03, BHST08, BV09, CGG⁺14, CFGLT22, CWZ07, CHMR10, DGGG09, DF99, DTY18, DMZ21, EKSW15, EDGL12, ERSZ17, GMS18, HP20, Hen06, HH11, HTB⁺05, HY14, HHLW15, HHL15, JL05b, JZ00, LHL11, LX16b, MCL19, McG95, MP94, MS12, MSV00, NHSS13, OH21, PS10a, PL12, PKS21, PSC18, RMR15, RT01, RL10, RW01, RGG06, SSW18, ZCW10, ZZ18]. **Maxwellian** [Gos12b]. **May**

[KHU96, RMB00, TW95]. **MCMC** [Bar12a, BH20, FL18, MWBG12, PMSG14]. **MCMC-Based** [Bar12a]. **McMillan** [Hok20]. **MD** [ZLBC03]. **MD-DCT-II** [ZLBC03]. **MD-DCT-IV** [ZLBC03]. **MD-DCT-IV/MD-DST-IV** [ZLBC03]. **MD-DST-IV** [ZLBC03]. **MD-DWT** [ZLBC03]. **Mean** [And17, Bru18, CS94, Don06, GDLS14, Hof05, KS17, KS15b, KKK18, LL22, LTT16, MT97b, Ren15, RW06, Tim19, VP14]. **Mean-Field** [KS17, LL22, LTT16]. **Mean-Square** [MT97b, RW06]. **Means** [AAB⁺15b, ABCP08, XCLQ20, ZWG21]. **Measure** [BGMW17, SG04]. **Measure-Theoretic** [BGMW17]. **Measurement** [CAB04]. **Measurements** [GP16, HTH⁺16, KBV09, MS03, PDTVM08, RKvdDA14, vdDA12]. **Measures** [AOS20, BJW18a, Cao07, KTSB19, LCN14, PSSW15, RGOY10, SW22b, WK06]. **Measuring** [Hua05, Kaw15]. **Mechanical** [AL99b, BPT19, CSS10, HW09, RN14]. **Mechanics** [BTB05, BDPR22, ES17, ES00, GRPG01, Lee13a]. **Mechanism** [LL02]. **Mechanisms** [HS16]. **Media** [AE08, ABBM98a, ABBM98b, AB17, AM19, AD18b, AFRV19, AGPR19, BL23b, BGS09, BC09b, BEM17, BOKCW20, BHR23, BKBT18, CLDS19, CHW17b, CDF18b, CCC18, CDB13, CCH15, DL17, DLM16, FHR14, GM17, GYZ11, GJP⁺14, GL22a, GY17, GW04b, HMRR19, HIT19, HRvdZ22, HY14, HSSZ09, KK02b, Kon21, KWD22, LVWW03, LE10, LOL13, LY98, LLZ15, LZ04, LCK21, MJR05, PS10a, RJLW20, Slo02, TTSM08, WLE⁺00, WZET13, WZC19, WPT17, YYS16, ZT17, YGCP96]. **Medial** [JED10]. **Median** [CCS97, GL22c, Str93]. **Medical** [HDB08]. **Medium** [AHR12, BYZ19, CZ22, CK07, DBC13, LHL11, LLS19, LXYZ23, LRGO17, SCC17]. **Meets** [MZWG16, YZL20]. **MEG** [HCHS13]. **Melnikov** [XYZ05]. **Melted** [AHT17]. **Membrane** [AB21, CS18b, DZ08, RR98]. **Memory** [AKK14, AAB⁺16, ABL⁺20b, BBSV10, BDD⁺97, BT03c, BtVÇG⁺10, BFJ00, BGR16, BLNZ95, ÇKAA22, DJ07, Gon15, GKK10, GKN18, HKR02, HWD02, JWC21, KRDL18, LM99, LWZ13, LFLS08, MGDB19, McL12, OAA20, PF94, PR96, Sta07, SM07, Sun96, SH20, Til15, TD99, TTMA22, VMV15, XXdH⁺17, ZV05, NP93a]. **Memory-Aware** [AAB⁺16]. **Memory-Efficient** [GKN18, KRDL18]. **Merge** [Oli01]. **Merging** [GL22b, GHS⁺15, GKN18, Ros97]. **Merit** [ZSPL21]. **MESFET** [BI09]. **Mesh** [AHK⁺17, AFMP15, AKM⁺13, ADM⁺15, BB17, BLH02, BBSW94, BGGM22, Ber98b, BVW03, BHR96, BW09, BWG11, BH17, CCPS20, CHR99, CHR02, CPB13, CDK19, Che94, CWL⁺14, CC06, CC09, CC12b, yCWHJ12, CLK18, CRR18, DPF15, DDGS16, DLTZ05, DLTZ06, DMRR19, DKS21b, EHLW20, FK00a, FR10, FCC10, FJP99, GVP06, GT98, GW20, GHTW00, GMT98, HHM08, HKA⁺21, HO15, HR07, HB97, HR99c, Hua05, HA08, IS17, JTZ08, JP97, Knu01, LMKG16, LPR98, LY20, LC05a, LC08, LCL18, MMRN15, MN07, MNRI19, MH17, MCB18, MP08, MYZ21, MGH21, MM07, Ols07, PWF18, PP05, Pol16, RL17, RH06, RWX07, SR18, SKF18, SL09a, SRI⁺18, SMR01, Tra95, VGOR20, WC00, WH15, WP19, WCHZ14, XOMN10, YHQ12, ZJC12, ZAD⁺16, ZHQ20, ZWP21, ZSD⁺10, Zie12, de 99, CC11]. **Mesh-Adaptive** [MH17]. **Mesh-Free** [yCWHJ12, DKS21b, SKF18]. **Mesh-Independent** [BVW03]. **Mesh-to-Mesh** [CRR18]. **Meshes** [AJ22a, AKS05, AD18b, AMP00, BMNV20, BMNV21, BB17, BGPS21, BBD16, BKS13, BH16, Cai95, CQ22, CH09a, CDG17, CGZ99, CHW17a, CHW20, CFJT18, CKRS07,

DKK⁺19, DFJS19, DGK21, DBSR17, EFHL09, FCZE14, FCM12, GW15, GHH07, GK19, Gob08, GS19, HSMT20, HKB21, HH16, HG00, ISG15, JV96, JHJ12, KZP20, KWG⁺20, KZ16, KKR21, LNSZ06, LJ95, LTW18, MLL13, MB13, MTTV98, MKRK13, MV21, PABG11, RKLN07, RL18, SB10, SV08a, Sha99, SY08, SYY09, SV03, SC02, Tal15, TAHR15, TPT⁺16, VBT99, ZS03, ZHQ20, ZMS10, ZP18, ZP20, ZQ18, Ain96].

Meshfree [BM17a, BWZ21, COR13, COS06, WJS23].

Meshing [BH00a, BL04a, BSV19, HGPM14, VO19].

Meshless [FDS13, Lin16, SK19, SL22, TPB17].

Mesoscale [BRK16, RG09, YC14].

Message [BS98]. **Meta** [TCKK18].

Meta-materials [TCKK18]. **Metabolic** [LNA⁺11]. **Metallic** [PS10a, ZMqCS21].

Metamaterials [CCC18, HLY13].

Metastable [Kue12]. **Method** [AB17, AdS22, AM19, AG21, ACY⁺20, ABMR11, AG17b, AG17a, AG18, AS22, AD18a, AD19, AHN⁺20, AFF⁺15, APSG16, ALMR17, ABN21, AA13, Ama98, ALJ99, AF11, ACCO00, AAO23, And17, AKBM21, ABPW21, ABMP22, AF15, AHDK14, AP12, ABCP08, AH04, AH06, AW11, AHH12, AHR12, AGHJ23, AP99, ACCP13, BA05, BS08, BN23, BMNV21, BCR03, BBP21, BS05a, BGL06a, BW18, BW21, BMR10, BLMR02, BT03b, BO07, BHV05, BJ01, BS05c, BLS09, BDZ13, BMTZ13, BS18a, BL23a, BGOD08, BV03, BG10, BSHL14, BDGK18, BB10, Bar99, Bar05, BOF16, BRT07, BBC⁺21a, BC06, BK08, BG98, BM01a, BEEM18, BSS09, BL04b, BMDO16, BPT⁺14, BM95a, BMT96, BCT00, BH12, BP13a, BLS14, BPS13a, BM01b, BHK14, BV20, Bet08, BK04, BLP14, BK00a, BFN17, Bjo95, BT97, BCSS14]. **Method** [Bla03, BI09, BLGL11, BGH⁺03, BCCK16, BU15, BBD16, BBB⁺11, BCP15, BPR16, BB08b, BB03, BT20a, BER17, BBMR03, BS96b, BCL99, BIA05, BTT13, Bru18, BH23, BOPGF06, BTGH12, BDS20, BSS21, BWZ21, BCM15b, BCDE21, BG13, BG04, BORTP19, BFSN08, CG18, CC16, CW07, CL10, CLW13, CFY18, CL18a, CL18b, CDK21, CQ22, CWY23, CCJ21, CGL⁺13, CH09a, CKOR16, CB98, CG99, CHR02, CP04, CGO22, CGL01, CCC17, CV15, CKQ14, CCS97, CCS98, CDH98, CGM99, CP13, COS21, CFGLT22, CL03, CDF18b, CWZ07, CCCZ10, CM15, CHX15, CJY16, CCC18, CKXZ18, CMZ19, CZ22, CL18c, CVK13, CPS11, CCA20, CCFG23, Cho01, Cho09, CEP20, Cho05, CILZ15, CIZ18, CHZ21, CDB13, CK07, CJK10, CBK18, CDG⁺09, CS16, CGM00b, CHM02, CP95, CBF17, CMSS06, Cor01, CVE13, CH11, CPD17, CDN16]. **Method** [CDZ22, CKRS07, CFM98, DBC13, DY06, DM13a, DLZZ17, DEN21, DK10, DFG15, DB98, De 12b, Ded10, DJT08, DLY16, DT95, Den97a, DLM16, DYZC22, DT00, DFJS19, DGK⁺16, DMRR19, DFL20, Don06, DFW21, DFW22, DG16, DMM19, DHE13, DR13, DZ08, Du11, DW15b, DS16, DL20b, DTYY18, DMZ21, DCP11, DGL⁺12, DGRZ15, DK03, DLP⁺21, DF21, EPR10, EKSW15, Egg18, EAS08, EAOS21, EEO01, EPE05, ELW20, EKSS16, EVLW17, EMNS20, ES17, EP06, EIL⁺09, FKMR19, FGMP13, FGMP14a, FGMP14b, Fai03, FO08, Fer98, FDS13, FCZE14, For06, FW97, FÖ21, FN94, FL08, Fro12, FM07, FJP⁺11, FKW13, FL19, FK18, FR19, GJ17, GHHH17, GSO17, GJLX16, GV07a, GYZ11, GJP⁺14, GHMY18, GL22b, GL22a, GH13, GKV00, Gar05, GBS⁺22, GH02, GBCT10, GN14, GvdV17, GW20, GJ05, GLT18, Gia18, GKNW18, GM14a, GR02]. **Method** [GN19, GK19, Giu22, Giv12, GMP19, GLQ18, GSR19, GMS21, GY99, GMV99, GY02, GRMS09, GXY15, GC19b, GCN21, GMO14, GOS12a, GLL21, GM19a, GH99,

GKT09, GJZ18, GS00, GS02a, GS02b, GOS03, GST23, GO09, GHKS14, GV09, GXZ21, GS21, GN22a, GN22b, Gug16, GC97, GX16b, GC16b, GC17b, GY17, GLW18, GSV20b, GSV21, GN07, HM05, HHM07, HRT10, HG98, HJN17, HQR19, HSK19, HP14, HM98, HN20, HW14a, HR07, Haz08a, Haz08b, HLLM15, HZXC16, HR99a, HRT03, HIT19, HKR16, HLW00, HBL05, HRT13, Hen05a, Hes98, HSZ12, HP94, HC95, HL10, Hoc01, HY08, HXX18, HJJ22, HV95, HR99b, HQH⁺16, HB97, HY10, HS99c, HTB⁺05, HY14, HJX15, HLZ19, HC20a, HHSY22, HJZ23, HS94, HJMS07, HXB13, HLY13, HYC15, HLM16, HC20b, HJX23, HDOS23, HMM⁺21, IT09a]. **Method** [IK10, In99, Jac03, Jah10, Jam98, JP16, JMM10, JKM14, JMR17, Jar19, JW08, JN10, JZX⁺21, JLYZ23, JED10, JWH08, JLXZ21, JK05, JG02, JL05b, JvGVS13, JP01, JK00, KLV⁺16, KM11, KH14, KFR21, KR17, KNN12, Kan03a, KMT98, KV05, KRR23, KP06a, KP11, KO17, KP12b, KS19, Kla99, KW00, KL13a, KLZ22, KLY05, KLY07, KS17, KP10, KR99, Kny01, KM16, KMER22, KS13, Kol99, KC16, KH18, KWG⁺20, KL13b, KWD22, KLZ⁺06, Kra09, KP05, KP06b, KMR19, KO13, KL11, LW12a, LHL12, LP11, LP13, LZG20, Lan10, LSV17, LMRS15, LCG21, Lar99, LSH17, LLP98, LMR98, LL02, Lay03, Lay06, Le 09, LS13a, LZ17a, LG97, LL03a, Lee10a, Lee13a, Lee14, LE17, LPMR19, Leh15, LJ19, LCD14, LQH21, LZ01, LZ02, LLZ08, LLZ09, Li10, LL11, LX14, LLX15]. **Method** [LJ17, LWYxY18, LNZ19a, LNZ19b, LST20, LY20, LXZ20, LZ20, LM21, LSYY21, LLJF21, LN03, LP04, LY98, LZ13b, LC05a, LC08, LZK17, LJL98, L XK08, LS09, LX16a, LYLC17, LTW18, LGW19, LLS22c, LTG22, LY22, LH00, LD05, LFBO08, LN04, LPP09, LD03, LX16b, LLS19, LW20b, LGR20, LCY⁺20, LCK21, LX16c, LS00, MR09, MN07, MNRI19, MR04, MRS04, MFY23, MCT⁺05, MOSS17, MWBG12, MR07, MW03, MS06a, MP20b, MHR20, MR02, MRB23, MYN20, MST15, MBVO13, MG12, MO10, MTM08, Mir21, MZ94, MRKS21, MDA22, MT23, MB19, Moo00, MTV16, MS18a, MvdM21, MS20, Mor23, Mu97, MWY17, MZ19, MYZ21, MPS09, MSV00, MCV17, NN12, NN17, NAS13, NRMQ13, NT18, NCCR22, NS06, NM13, NW22, NMAB11, NvdP00, NNH99, NKM10, Nov23, Obel13, OS15, OX17, OQRY18, OTV19, OR18]. **Method** [OKGG⁺23, PRS12, PPS22, PDTVM08, PR09, PS10a, PKD13, PW12, PHJ11, PBWB14, PZZB15, PL12, PNP13, PTT20a, Pen00, PP08a, PT01, PEdD12, Pla98, Pol16, PvdVvG17, PS10b, Por01, PD15, PoH09, PBT⁺TB⁺15, Pup99, PM15, QL06, QS05b, QS08b, QSM19, RO18, RRR03, RRR05, RG13, RZ03, Rei13, RMC12, Ren15, RU01, RNV19, RW01, RZTK⁺15, RtTBAI21, RV10, Ros06b, RX18, RJLW20, Rüd94, RO12, RO15b, RS00, RSA05, Sai20, SB10, SB98, SS98, Sar98, SA99, Sch98, Sch94, SR16, Sch09, Sch13, SL09a, SY18, SM94, SBM07, SG95, Sim07, SS10b, SDNC20, Smi97, SK05, SC02, SSF16, SD21, SMR01, SAB14, Str00b, SL09b, SL22, SO09, SV01, TZ95, Tad20, TKCC13, TKW08, TLLK09, TY00, TXZZ22, TCZC19, TT06, TP09, TBKF14, TLH21, TMA18]. **Method** [TPB17, UWY⁺15, VP10, VP14, VN03, VMM13, VV05, Van20, VS23, VBT99, VK15, VYX16, VSBH99, VGOR20, VXCB16, Vog16, WS95, WZ21a, WX99, WLE⁺00, WLK06, WWY09, WMC11, WWY11, WB12, WY12, WHCX13, WSZ14, WDG⁺18, WBTG18, WZC19, WMHK19, WWYX20, Wan22, War13, WMOZ22, Wei99, WWH17, WPT17, Whi15, WKM⁺07, WY13, WGF08, WJS23, WS15, WFAP15, WSX17, WS18, WG19, WXS19, WQX20, WCG23, XEG06, XA99, Xie05, XKWY08, XXdH⁺17, XQX15, XCS16, Xu94, Xu04, XW05, XS08, XOMN10, XXZ20, XZLX22,

Xue18, YCZ13, YDF97, YGB⁺05, YHQ12, Yan19, YZL20, YHFG22, Yan14, Yan18, YZ05, YD06, YHL19, YZZ19, YCN21, Yiu95, YSK19, YYWY18, YK03, ZEG19, ZK14b, ZZK15, ZMK17, ZLG98, ZN05, ZCK12, ZJC12, ZRTK12, ZWH⁺14, ZF14, ZJX14, ZTRK14, ZYSL15, ZDZ16, Zha18b, ZS18, ZXY21, ZWP21, dZHY23, ZCP06, ZWZ⁺13].

Method

[ZP18, ZJB20, ZP20, ZZY20, Zha22b, ZS23, ZLTA15, ZHL21, ZK96, ZFHS15, dVM08, iW11, vNLB04, vWBV09, ABS96, ABCM97, AM95, ADRS95, BS94, Bøe93, Cai93, CW93, CPS94, DS96, EW96, FCR93, HG96, Hes97, HL97, Lam97, Li94, LCW95, Liu93, PCDB96, She94, She95, SS95, SS93c, ST96, Tan93, TV93, Yav93, ZMC94, CD13, JK21].

Methodologies [IHTR12, KB08].

Methodology

[BC09a, CRS⁺18, DKW19, TCKK18].

Methods [AE08, ABBM98a, ARMNW10, AC08, ACVZ12, AVZ13, AGI10, ABLS05, AMN15, AL02, AC05, AMVR17, AV14, ABC⁺16, ABC⁺21, AGL10, AKA13b, ALI19, APvDG12, ABF96, ADP20, AW20, AH20, ABC00, AABM13, AM17, AAB⁺15b, AIL05, AW15, ACN19, AGH13, AM20, AHV18, AKM⁺14a, AHT17, AKT16, AGPR19, AS05, AA02, AKM14b, AL97, AL99b, AHH06, ALZ14, BS03, BS07, BKGV16, BQQ08, BMV18, BCAG22, BKM19, BR05a, BGLY05, BHN07, BN98a, BK16, BOB⁺19, BS05d, BYZ19, BBS04, BN00, Bas98, BvG15, BBBG11, BN98b, BLB00, BzCS11, BGK15, BDK⁺20, BDO12, BBM11, BGGM22, BB15a, BB15b, BHT09, BS15a, BCC20, BS16b, BSS17, BBS19, BBS22, BM17b, BFK05, BG05a, BG05b, BCM05, BCM11, BKS16b, BR18, BF14, BZ15, BvW09, BLR14, BBM⁺15, BQR18, BBT19, BS99b, BT13, BJP⁺22]. **Methods** [BKMM10, BDK12, BMV05, BGSV15, BMV11, BHM⁺21, BMMT14, BK20, BSU19, BD05, BRW10, BHR96, BOPGF06, BT16,

BMV13, Bur13, Bur14, Bur23, BLL07, Buv21, CCF14, Cai95, CKS01, CL11, CPW15, CGL⁺12, CHAMR06, CSS10, CPH14, CDG17, CGQ10, CZK15a, CPV95, Car07, CV07, CKD13, CRS⁺18, COS06, Cas97, Cas02, CZ10, tVCAU10, CFSZ08, CEHN08, CV12, CS96, CCSY98, CGZ99, CN99, CW17, CHW17a, CHW17b, CDC19, CC03, CFKM18, CGM⁺21, CGSR20, CHW20, CCL⁺20, Che98, CKY98, CD02, CHMR10, CMK11, CLL13, CBN02, CR21, CLK18, CKV99, CS14, CH08b, CK98, CS17, CG19, CBDW15, CHH10, CM99, CFM96, CCG14b, CGP19, CDW14a, CDW14b, CS10c, CK94, Cor98, CE16, CGF21, CC18, CSW14, DO11, Dar21, DP98, DMMO04, DMMO05, DG98, DL17, DHJW08, DFDM19, DLTZ05, DLTZ06]. **Methods** [DRFNP07, DFN12, DB94, DP10, DPS18, DTM05, DKR12, DGGG09, DS14, DKK21, DKSW19, DMSC18, DGK21, DF99, DGR⁺17, Du16, DWQY19, DHZ⁺21, DCL⁺21, DKS21b, DK98, EKM94, EL20, EDGL12, EBR00, Elm98, Elm00, EF15, ES18a, ES19, EMM⁺99, Ema10, ELtHR00, EN09, EV13, EMT09, FTY15, FK00a, FGM08, FR15, FR23, FKTW10, FS02, FK00b, FRS19, FMS17, FDH⁺20, FMR06, FS12, FS13, FM99, FNNB05, FK21, Fu21, GMN02, GK12, GX16a, GZ16, GV19, GV20, GASSS98, GGL09, GK11a, Gas13, GSS12, GHK14, GK03, GHH07, GL08, GV12, GSV20a, GNS22, GG19b, GLQ16, GY05, GP18, GZW18, GJM94, GGKM07, GKS98, Gra14, GK05, Gri94, Gri95, GMM15, GSW13, GM23, GC97, GNZC17, GZT⁺19, GX20, GJ21, GSM20, GW04b, GM04, GVMM14, GP96, HKR02, HR05, HN19].

Methods

[Hag00, HHM17, HKF⁺13, HHE10, HW13, Han95, HH02, HN22, HMN⁺13, HW14b, HRD21, HNS08, HW21, HLP23, HKKR19, HKLW19, HHK19, HL20, HKLW21, HKK⁺22, HKL23, HJ98, HJ18c, HHR23,

HSF07, HT00, HLMM06, HLM⁺09, HMR09, HL98, HV96, HEGH14, HLP08, HCX22, HJS18, HS01a, HS18, HK95, HJL⁺19, HCW20, HWZ21, HKM97, HW09, HFL11, HGZ17, HJ19, HLL⁺22, Huc08, HiH18, HLM03, IM97, IM99, IT14, ISS19, JK11, JSPC97, Jay98, JVG12, JSCB20, JcS21, JW05, JCL07, JLP18, JGZ06, JR96, JR98, JP11, JZ00, Kan03b, KH22, KMW15, KL15, KBK⁺08, KRW20, Ket08, KZK17, Kim05, KL06, Kim08, KZP20, KR21, KS20, Kla98a, KR06, KR12a, KLR14, KLR15, KLRU17, KVMK01, KCB17, KS15b, KW16, KT08, KSU14, KW18, KW10a, Kul12, KRGO19, Kus97, KGT07, LVVW03, LOSZ07].

Methods [LSTY21, LCBD07, LP96, LS95, LL97, LMPQ03, Lee10b, Lee13b, LN17, LPP19, LM20, LRV22, LST07, LG09, LHL11, LLLX16, LZ17b, LSC18, LLW19, LYZ20, LSY21, LRS02, LMT18, LL08, LSZ17, LBHH22, Log03a, Log03b, LNS15, LR20b, LSPRV21, LWSP22, LCR20, LCR22, Lui00, Lui01, LMMW04, LK98, Luo19, MMRN15, MM13, MV00, Man99, MS17, MMK23, Mar03, MMT15, MS04, MLL13, MC10, McL95, McL07, MRS14, MW01, Mic01, MT97b, MSS12, MS12, MO21, Mou20, MFPG18, MDC98, MZWG16, Mu20, MGH21, NKLW94, NX12, NAC⁺15, NNRW09, Ng00, NSJ03, Nwy10, Nwy11, NFFP18, NWW97, NN05, NLY23, O'L01, OSU10, ORST12, OS14, ØLW08, OS98, OSCE00, PWF18, PS02, PS18, PR01, PE00, PCFN16, Pav98, PZPR07, Paz20, PL06, PTSA23, PATF19, PSA99, PS19b, PWGW12, PST15, PC21].

Methods

[Pul08, QX08, QS18, QS05a, RHL⁺21, RSD⁺20, RKLN07, RX17, RR98, RG07, RW11, RG98, RGG06, RH09, RW06, RS13, Ros96, Ros05b, RS99, RWW14, RM08b, SSM16, SL10, Say15, SG11, SRS12, ST17b, Sei23, Ser06, SCTP04, Sha21b, She99, SY10b, SY12, SWX16, SW16, SBX⁺08, SW17, SM18, SV00, SS03, ST00, SO15, Son12, SH14,

SSW98, Sta07, SM07, Ste01, Ste00, SS93b, Ste02, Str94, SSVW17, SH20, TT96a, TS11, TX17, TWYZ20, TK13, Tau96, TSK09, Tie18, TVA02, TLT12, Ton94, TW17, TS14, TPW09, TLE12, TP99, TV98b, UA07, VC00, VV05, Vas07, Vil14, VW94, VO96, VPP05, Wal99, Wal18, WCS00, WC03, WPL⁺13, WLE⁺00, WL08, WWY09, Wan12, WSA16, WRSZ18, WHL18, WP19, WCL⁺21, WJW21, WZ22, WG00, WMSG09, Wen10, WMBT19].

Methods

[WK03, Wu21, WZ21b, WX21, XSC21, XZB11, XH05, XT06, XSWG23, Yan94, YTLI11, YYS16, YBLH16, YZ07, YZ08, YJXZ22, YWL17, Yu01, YCS16, YB09, ZBFN17, ZKN21, Zam16, ZG23, ZK14a, ZCZK14, Zbi11, ZTBK18, Zha97, ZV05, ZCL⁺11, ZZWZ14, ZSB16, Zha20, ZWH21, Zha22a, ZMS10, ZK15, ZW94, ZF09, ZWG21, ZS02, Zin00, ZS04, vHBTC12, vdVY00, AP93, Atk94, Bia94, BR95, BHP94, Cai94, CSS93b, CW97, Dax93, DG95, Elt96, FS96, GPHHAPR18, HHRV93, HLS93, Lie93, LSM93, MMPR93, MP94, Pem93, PM95, Rán93, ST94, She97, Wei94, Zha94, vd97].

Metric [BPR16, BRR18]. **Metrics**

[GKRB16, Knu01, UA04]. **Metropolis** [CKLL16, ST22b, Wal14]. **MG** [HJJ22].

MG-FIM [HJJ22]. **MGIC** [EERT23].

MGM [WJS23]. **MGRIT**

[DKPS17, WZ19]. **MHD**

[AB19, CST⁺13, CST16, LNz19a, LNz19b, PEC⁺14, PSC⁺16, Rav05, WGS17, WS20].

Micro [JS10, LLS13, LM08, LM12, VS23].

Micro-Macro

[JS10, LLS13, LM08, LM12, VS23].

Microchannel [HKF⁺13]. **Microchannels**

[VN03]. **Microflows** [CLQ12, HCW20].

Microlocal [LQ19]. **Micromagnetism**

[Lab05]. **Microprocessors** [HML⁺04].

Microscope [WPL⁺13]. **Microscopy**

[BC06, LFJS14]. **Microstructure**

[Kup00, Li03, NWW97]. **Microwave**

[WB08a]. **Midpoint** [AR99]. **Migration**

[PR96, SP03]. **Mills** [CW06]. **MILU** [WH95]. **MIMD** [ST94]. **Mimetic** [ACHZ21, CPH14, TC12, dVM08, dVL10]. **Min** [GG94, GG95]. **Mindlin** [CG07]. **MINERR** [Dul98]. **Mines** [XK08]. **Minimal** [ABPW21, BBSV10, CGS02, DS14, Lee13a, LRS02, LN04, LD03, NM13, OK13, OWO14, RN95, SV01, Ton94, WMI09, ZP18, Bia94, CGS⁺94, Fre93]. **Minimax** [FNTB18, GJM94, HW21, LZ01, LZ02, SW10b, YZ05, ZFHS15, NT20]. **Minimization** [AKA19, AAB⁺15a, AO17, BLV18, BLP14, BCL99, BL08b, CGO22, CC08, CXY10, DK10, DGP10, Doh03, DF03, FNNB05, GY09, GRMS09, GS98b, GNZC17, HAS20, JFSO23, KKK16, LMRS15, LN17, LST07, LLCW22, MF06, NN05, OC05, OST11, SKO21, Tao22, Vas10, WBFA09, YG15, YSX17, YMW07, YLHX15, ZBK18, Zha20]. **Minimizing** [ACO98, ACCO00, CW12, Don06, Hag02, HKR16, HL20, KKR21, WCS00, Wei94]. **Minimum** [AW11, Ash95, BLMS21, BBR08, EG18, HSK19, Kas95, MV00, Ng00, PS02, PHJ11, WZ21a, Wan13, Wu21, dMHJM00, DG95, SS93a]. **Minimum-Mode** [PHJ11]. **Minimum-Radius** [BLMS21]. **MINRES** [CPS11, Dul98, GH02, HS17, KL12]. **MINRES-QLP** [CPS11]. **MIONet** [JML22]. **Miscible** [AD18b, CL97, GY17, LY98, WLE⁺00]. **Missing** [ZW16]. **Mitigating** [WTP21]. **Mixed** [AE08, Ain07, AdWGV⁺20, AHT17, AGPR19, BMV18, BRT07, BMM98, BHL⁺20, BBH20, BG04, CPV95, CK23, CGP12, CZ10, CKY98, CKV99, CF05, CG07, DYZC22, DTY18, DMZ21, DK98, Egg18, EPSU09, FGM08, FKTW10, FCF19, FNNB05, GJ08, GYZ11, GS16, GH02, GK18, GPHHAPR18, GW00, HJP03, HJP04, HW09, KLV⁺16, KS99, KL05, KP21, LPMR19, LRV22, MMT15, MRT00, MBT21, MRB23, Mic01, Pav98, PSA99, PQOB14, PSC⁺16, PEdd12, RW21, San10, Sar98, SJR09, Sch02, ST17b, SW16, Sta00, TBM21, VP14, VLM22, WLE⁺00, WGS17, XCS16, YTD15, YBLH16, YFS21, YWW23, Zha22b, ZHS10, CGP93, WTS94]. **Mixed-Dimensional** [AGPR19, BBH20]. **Mixed-FEM** [GH02]. **Mixed-Hybrid** [MRT00]. **Mixed-Integer** [VLM22]. **Mixed-Mean** [VP14]. **Mixed-Precision** [MBT21, TBM21, YTD15]. **Mixed-Type** [Zha22b]. **Mixing** [ZCZ04]. **Mixtures** [AHT17]. **ML** [HKO⁺23, YC99]. **MLMC** [GHKF22, HXW22]. **MLMC-based** [HXW22]. **MM** [WCL⁺21]. **Modal** [DMM18, dMGF17, KSMM18, Rei21, ZGK20]. **Mode** [AW20, AK17, Aru12, CGM00a, DU19, DL23, LLS19, LT20, MNU23, PHJ11, RSSM18, WRB⁺15]. **Model** [AKA19, AH17, AdSGC12, ABdSF15, AHN⁺20, ABST13, AK17, AN16, AGI16, AH09, AHR12, AKM14b, BBSW16, BB08a, BBBG11, BG07, BF13, BB15b, BG21, BMM98, BK04, BFN17, BI09, BCKK16, BF22a, BK00b, BGH23, BS18b, BTWG08, BCV13, CLQ12, CCS⁺19, CTB15, CLDS19, Cha07, CS10a, CBG16, CCCZ10, CYZ17, CDM⁺13, CS18b, CZ22, CC19, CCA20, CG96, CW12, CGHT14, CKM23, CDN16, CPR11, DJMR23, DHL21, DKM14a, DHE13, DSZ13, DG99, DZ08, ES22, EKLS⁺18, EPSS22, EMM⁺99, EF05, Fra98, GLM22, GX16a, GHMY18, GT98, GKC13, GM13, Gob08, GLL01, GB06b, GPA18, Gos12b, GSS22, GSW13, GM23, GLW18, HKO⁺23, HKF⁺13, HLLM15, HSS08, HL19, HM20b, HJP03, HQH⁺16, HMMS22, HiH18, IA14, JK15, JLZ16a, JLYZ23, JP14, KY19b, Kim05, Kim08, KLJ10, KPPS14, KS15b]. **Model** [KSW20, Ld12, LTC13, LSV17, LU17, LQR12, Lay96, LS13a, Lee14, LMW17, LPP19, LM15, LN05, LWW20, LWG10, LS05b, LM14b, LHR⁺18, LRT11, LW20a, LTG22, LQZ22, MO00, MP20a, MRS16, MBS22, MS18b, Mu97, MZ19,

MEF09, NKTY08, NPS22, NS21, OS14, OPR23, PP12a, PW15, PWG16, PGW17, Peh20a, PNP13, PM16, PS11b, PN19, QS14, RKLM18, Rei18, RPM23, RPSS22, RDP08, RLM⁺00, SMZ18, Sai20, SSDN12, SBR06, SSM⁺20, SV23, SBHS19, Sha21a, SY10a, SXL⁺22, SZZ21, SSJB17, Sma01, ST23, SBMR18, Tad20, TLN14, TY00, Toi08, TGS08, VBA18, VP14, WW22, WFG⁺20, WiOH08, WG20, WH13, XBC96, XJBS12, XJS13, XL20, YY18, Yan21, YGS⁺21, ZBFN17, ZFLB15, ZHY21, ZWWZ21, ZZZ21, ZMD22, dZHY23, ZYLW16, Zim14, dSGK⁺15, ten95, CHKM13]. **Model-Based** [Fra98]. **Model-Free** [YGS⁺21]. **Modeling** [ASR⁺23, ASZ07, ACCP13, BPR04, BCT05, BKK18, BBH⁺16, BCG⁺10, BGL06b, CHL06, CGDD11, DKDH20, DCB22, GaP08, GV15, GRL10, GM11, HKA⁺21, HJ18b, HK03, HLY13, HLM16, JK10, KLT06, Kup00, LVWW03, Lay06, LCR⁺16, LOL13, LO14, Lem16, Lin06, LM14c, MH17, MJR05, MG23, NMWI11, NWW97, OPRB06, PSKG13, PQR20, RG13, Ren15, RG09, RK07, RBG23, San10, SDNL10, SPKB13, SOTB21, SCM10, TPT⁺16, Wal18, WKM⁺07, XMRI18, vdHCDD15, LP06]. **Modelling** [GMvdV18]. **Models** [AT20, AA00, AKA13b, AF11, ABCP08, BST08, BHN10, BCF13, BCJ⁺21, BBR04, BGSV15, BJ08, BMV13, BJW18b, CV07, tVÇAU10, CCC17, CNP12, CS18a, CAG⁺19, DSB99, DJP00, DBA19, EHL06, EMSW12, EAA21, FKQS17, FS05, FY14, GR04, GZYW18, GZW18, GZW20, GV16, Gri19, HAG17, HRP20, HPS06, HDB08, Hri03, Hri05, JILGZ20, JSCB20, KGM⁺11, Kou09, KL11, LL02, Le 05, LRP07, LP08, LDS11, LZ16, LL20, LSPRV21, LNA⁺11, MMRN15, MKW23, MEHL16, MW08b, MW22, NGX14, NCT99, NMFP16, OKdSG17, OAA20, OPRB06, PGW17, Peh20b, QZT11, QSM19, RWKW14, RWWK15, RS13, RW97, RLC08, SBK18, SRS12, SHP07, SC03, SY14, SBX⁺08, STY21, UWWP23, WM05, WKM⁺07, YTT21, YDK22, ZZY20, WTS94]. **Moderate** [NN14]. **Modern** [DARG13, EMM⁺99, KHW⁺14, MRV06, RZTB22]. **Modes** [ARM23, Fli13, JvGVS13]. **Modifiable** [IS17]. **Modification** [MOKS12, Pet01, ST14a, ZH21]. **Modifications** [BEOR17]. **Modified** [ACVZ12, APS12, BS15a, BFK03, BIA05, BK20, CGL⁺13, CGO22, Dax03, EIL01, GL03, GM20, HJ18c, HLW00, HS17, LV10, LRT11, L XK08, MR02, MM95, MM98, NRS18, Sch93, SH01, DFK23, WLZ18, ZQ17, Zyg11, Anj93, FGM95, LCW95, OS95]. **Modular** [LS16a, LCE22]. **Modular-Proximal** [LCE22]. **Modularity** [ZLWZ18]. **Modulated** [BLM22, CDM⁺13]. **Modulating** [ALLK15]. **Moduli** [HRV11]. **Modulus** [CCG14a]. **Modulus-Squared** [CCG14a]. **Molecular** [APvDG12, BZ10, BCR11, BTY08, GKM⁺17, GLT09, JILGZ20, LR10, LLS22a, LCL18, NKTY08, OKF14, QZT11, QDKW18, RN14, SZS97, Ske09, VS23, YPN⁺01]. **Molecule** [Nak98]. **Molecules** [Kra08, MS04, VS17]. **MOLNs** [DTT⁺16]. **Moment** [BN98b, BLM03, CL10, DHP17, FDFW07, GLT18, GK19, KW10b, LZG20, LZ04, PKR⁺13, San10, TKCC13, ZBK18]. **Moment-Based** [BN98b, PKR⁺13]. **Moment-Equation** [LZ04]. **Moment-Matching** [GLT18]. **Moment-Parity** [BLM03]. **Moments** [BSMM16, ECH⁺23, GMV99]. **Momentum** [GMYL23, LW12a]. **Momentum-Preserving** [GMYL23]. **Monge** [BH23, BW09, DF10, DL19, Fro12, HCX22, NN19, PTvR⁺14, PBtTB⁺15]. **Monitor** [CHR99, HS17]. **Mono** [Lee10a]. **Mono-Energetic** [Lee10a]. **Monochromatic** [KR14]. **Monodomain** [CS18a, DKKP14]. **Monolithic** [ABC⁺16, ABC⁺21, AHH⁺23, BKKM22, HHK19, MKWG15, Wic17]. **Monomial**

[WB08b]. **Monotone** [FO19, PL03, SYY09, TCDS21, WK03, Bøe93]. **Monotonic** [PLVG⁺22, Woo94]. **Monotonically** [DBC13]. **Monotonicity** [AW11, BH14a, BS04, BM10a, BM10b, FK97]. **Monotonicity-Preserving** [BH14a]. **Monte** [BCCSS21, VS23, WZGO21, YWL21, ABLS05, ACdS⁺11, AE22, BHvST14, BDK⁺20, BK04, BCSS14, CL18a, CWY23, CKXZ18, CKBT16, CML⁺18b, CGF21, DPS18, DGR⁺17, EHL06, EBSS⁺11, FVV21, GSWZ20, GLSTV16, GL22c, GP18, GKRB16, HW14b, HLL00, HJS18, IT09a, IK10, IT14, JKLZ18, KKS08, KBK⁺08, LXZ20, LMRS21, LS23, LZ04, LW20b, LW19b, MS04, MSS12, MBS22, NT18, Ökt05, PR01, PWG16, PMR16, RNV17, RNV19, TPW09, Wan12, WWH17, WKKP13, WG19, WP20, YHFG22, ZWH21]. **Monument** [Sem10]. **Morley** [MT22]. **Morrison** [BCMM03]. **Mortality** [Kim05]. **Mortar** [BBMR03, BCdF⁺20, GYZ11, GJP⁺14, KV20a, KL06, PEdD12, PWGW12, Ste01, TW13b, WW03]. **Mortar-Based** [KV20a]. **Most** [KM05]. **Motion** [BN98a, CS94, CFSZ08, GM13, HT16, KKK18, MO00, MO10, Nit99, Sch05, SXL⁺22, SU15, TR93]. **Motions** [DYZC22, MK96]. **Motor** [GLL⁺15]. **Motzkin** [DHN17]. **Mountain** [Ben13, Ben15, Ben17, BD23, MY21, Tum10, TBC⁺11, Vas05, Yav19, vdV01, vdVDE⁺02, vdVDE⁺03, Vas07]. **MOVCOL4** [RWX07]. **Movement** [BLH02, FS05, KWW13, NMWI11]. **Moving** [BCI22, BHR96, BW09, CHR02, Car10, CM98a, CM98b, CP13, CIZ18, DBC13, DLTZ05, DLTZ06, DL20b, DBSR17, GLQ16, Gra14, GN07, HR07, HLP23, Hei13, HR99c, Kup00, LPR98, LCJ⁺20, MMRN15, MN07, MNRI19, PWF18, PM15, RWX07, SMR01, SAE10, TY00, VB07, WS07, WPT17, XSC21, YHQ12, YY18, ZHQ20, Pet93]. **Moving-Water** [LCJ⁺20]. **MPEC** [BLP14]. **MR** [BEM94]. **MREIT** [SKJ⁺13]. **MRRR** [DPV05, PQOB14]. **MRRR-Based** [PQOB14]. **MSAV** [CS18b]. **MSP** [WZ03]. **Mstab** [NG18]. **Multi** [ADK⁺18, BL03a, CB98, DDMQ18, DSRMK17, HK95, HGK97, LNP⁺07, Log03a, Log03b, MSS12, OPRB06, RNV17, RTR⁺16, Saa96, SW09, WK06, HJJ22]. **Multi-Adaptive** [HGK97, RTR⁺16]. **Multi-Dimensional** [DSRMK17]. **Multi-dimensions** [MSS12]. **Multi-Element** [WK06]. **Multi-Elimination** [Saa96]. **Multi-experimental** [BL03a]. **Multi-GPU** [RHSK11, HJJ22]. **Multi-Index** [RNV17]. **Multi-Material** [ADK⁺18]. **Multi-P** [HK95]. **Multi-Resolution-Analysis** [LNP⁺07]. **Multi-Right-Hand-Side** [CB98]. **Multi-Scale** [OPRB06]. **Multi-Stage** [SW09]. **Multiagent** [MZDK22]. **Multiblock** [LDM00, MC10]. **Multibody** [AKPRB08, Lee13b, Sch05, WK03, YP98]. **Multichannel** [YZY09]. **Multiclass** [BCV13]. **Multicloud** [DKM14a]. **Multicode** [CHV⁺18]. **Multicolor** [WH95]. **Multicompartment** [KLJ10]. **Multicomponent** [KS15b, LD05, WZET13]. **Multicomputers** [HV96, Rot96]. **Multicore** [ABC⁺14, GV15, GLR⁺16, HRS10, HEGH14, LD11, MHL⁺15, RHSK11, SH14, VTD12, YTD15, RZTB22]. **Multicore-Optimized** [MHL⁺15]. **Multicore/Multi** [RHSK11]. **Multicore/Multi-GPU** [RHSK11]. **Multidimensional** [ALMT20, BLH02, BBBV13, BZ12, BG20, BL03c, CK17, CGMV05, CHKsL20, FCM12, GS19, Hei13, Hes98, HDZ16, Hor10, HHSY22, Inv02, JL05a, JT98, KK09, LE10, LLD99, LPR00, LPR02, PSFL20, RO15a, SW22a, Str95, TW09, WL01, Win10, WS18, XCLQ20, BZ96, Ena97, ZMC94, ALZ14, PR22]. **Multidimensions** [GC17b, HC20b, Sur00].

Multidomain

[AKBM21, CLL13, PM95, WPGR13, LSZ17].

Multielement [HSK19]. **Multielimination** [SZ99]. **Multixtremal** [CGS02].

Multifamily [EZ11]. **Multifidelity**

[LZMW20, NGX14, PWG16, PVK16, PMSI21, WOP23, XKKN22, YZL20].

Multifluid [Kar96, SA99]. **Multifrequency**

[BYZ19, JL19, JL20]. **Multifrontal**

[AGL10, AAB⁺16, AAB⁺15b, ABLM17, But13, GLR⁺16, LGCL21, VM13, Xia13, XXdH⁺17]. **Multigraph** [BS99a, BS02].

Multigrid [AL02, AC04, AC05, ABKS16, AB08a, ABC⁺16, ABC⁺21, AHH⁺23, AG17b, AG17a, ADGM98, And16, AM20, AGPR19, AA02, ACK19, AY23, AT23, BKM19, BFKY11, BSH16, BDS98, BFJ⁺15, Bas98, BDO12, BI00, BFG⁺16, BGH⁺03, BHST08, BKS16b, BR18, BVV08, BB03, BH08, BvW09, BNN23, BM95b, BD99b, BIYS00, BF10, BK14, BCK⁺18, BCF⁺00, BFM⁺05, BGMR01, BFJ00, BVW03, BLM03, BSA13, BHM⁺21, BKS13, BK20, BK11, BEM17, BOKCW20, CW07, CCS98, CGG⁺14, CH02, CMM⁺07, CKY98, CMK11, CM15, ICCVEKV17, CFH⁺00, CG17, CRV14, DMS01, DMMO04, DMM⁺10b, DMM⁺10a, De 12b, DM13b, DT95, Den97a, DB94, DTM05, DKPS17, Doh07, DSC05, DMSC18, DGR⁺17, EERT23, EEO01, EOVS05, FKMR19, FS14, FFK⁺14, FMOS17, FS96, FRS19, FMB13, FKK⁺14, GN16, GGL09, GR17, GMSB16, GV15, GGOY02].

Multigrid [GRS⁺15, GOS03, HKR02, HR05, HSF23, HW13, Haz08a, Haz08b, HRD21, HHvR03, HW01, Hen05a, Hen05b, HSN⁺20, HTW⁺12, HV95, HDF⁺19, HTB⁺05, HLZ19, HLX23, HGRW16, Huc08, HMM⁺21, JFSO23, JV96, Jia14, JL05b, KR18, KKV13, KVV23, Kan03a, KR14, KK09, KK02b, KY03, Kna98, KR99, KM16, KR22, Kra08, Kra09, KW18, KRGO19, Kwa99, LO11, Lee09, Lee10a, Lee12, LN05, LB12, LB06, Liv15, LGR20, LRGO17,

MO08, MM13, MFJ19, MFY23, MMM⁺94, MOSS17, MRS18, MS19, MMRS19, MS06a, MBVOT22, MBT21, MT96, MSB⁺15, MPV21, MMV98, MN08, NN12, NN14, NN17, NAC⁺15, Not12, Not17, OR02, Ols07, OST11, OW98, OW00, OW02, PZZB15, PT01, DHM⁺23, PBV18, PoH09, ROM18, RNV19, RGOY10, RLM⁺00, SB10, Sch98, SCTP04, SIS96, Sha99, hSSW23, SS10a]. **Multigrid** [SW17, SSR21, DFK23, SAB14, SV21, TZ95, TBM21, TAY⁺19, TBH23, TY11, TY15, TPT⁺16, VV05, VFGS23, VV13, Vir07, WCS00, WC03, WL04, WHCX13, WOW00, WO01, WY09, WW03, WMBT19, WK03, WE06, XQ94, YBHY15, Yav96, YVB98, Zas95, ZF09, bZOW07, dIRRG19, BGP94, BY93, BH93, LK93, MMM⁺95, MMY96, TW93, Yav93].

Multigrid-Augmented [AT23].

Multigrid-in-Channels [EERT23].

Multigrid-In-Space [And16].

Multigrid-Preconditioned [PT01].

Multigrid-Reduction-in-Time

[HSF23, HSN⁺20]. **Multigrid-type**

[DSC05]. **Multigrids** [BTB05].

Multigroup [FJHM19, KWG⁺20].

Multiharmonic [KRS21, GBS⁺22].

Multilayer [CKM23, Lar99, LCY⁺20].

Multilevel [AG17a, ATWK19a, ATWK19b, ATWK20, ABH03, AKS05, AJ22b, ABLM19, AP99, BMP16, BS02, BK98, BK99, BGL⁺21, BSSS23, BDK⁺20, BL04b, BHT09, BS23a, BS05f, BGS09, BBB⁺11, BMSV97, BV98, BGR16, CGP93, CGZ99, CC08, CC10, CWZ07, CWX15, Cho05, ICCVEKV17, CDGT01, CGF21, CPB19, AGJT21, DMM⁺08, DMSW10, DGR⁺17, EY07, EN08, EN09, EK14, EK10, FVV21, FLU⁺20, FKRH22, GV20, GLS13, GXY15, GCR16, GC17a, Gri94, Gri95, GS02b, GR05b, GrM10, HM05, HSB20, HJ98, HLMR96, HÖU⁺19, HSN⁺20, HL10, HXX18, HJS18, HS01b, HL17, HWZ21, JK11, JKLZ18, JR96, KXS18, KNN12, KK98, KKT13, KS94, KKN21,

KKF11, KC16, KWG⁺20, KK23, KT08, Kra12, LLP98, LLZ08, LSC18, LYLC21, LS23, LX16b, LW19b, MG07, MG09, MG11, MV94, MK08, MSS12, MTV16]. **Multilevel** [NT18, OVV17, OKLS15, Par17, PS08, PS11a, PC07, RNV19, Rüd94, SZ99, Saa05, SM19, SCTP04, SBX⁺08, SW03, SRW⁺18, SLC01, TX17, TTY16, WLP020, WC00, WiOH08, WJS23, WP20, YD06, ZT17, Zha94, EG93, AM17, LB11]. **Multilinear** [SL10]. **Multimarginal** [FSV22, HCL23, KLLY20]. **Multimedium** [WLK06]. **Multimodal** [HW03]. **MultiModes** [YHFG22]. **Multimoment** [BBT19]. **Multinumerics** [TW13b]. **Multiparameter** [BC99, YBM⁺18, PWM22]. **Multipass** [MS98]. **Multipatch** [ABPW21]. **Multiphase** [BHN10, BEM17, BOKCW20, LVWW03, MBGV16, RHSK11, RJLW20, SU15, WZET13, Whi15]. **Multiphysics** [AHN⁺20, BS16a, LCR⁺16, SM17, WPGR13]. **Multiple** [ARMNW10, AEFM17, ALM19, AHDK14, ABB⁺16, BA05, BNP15, BGH19, BDvdG05, BER17, BWS20, BS96b, BD99a, CGL⁺13, CGR14, CN99, CS18b, CC97, CMM95, CDZ22, DFJS19, EPE05, GYZ11, GML⁺21, HR05, HHR23, JML22, KKN18, KMR01, LL19, Lee10b, LPMR19, LZ01, LZ02, LX14, LXdH20, Liv15, LN04, MY20, MN11, MY18, NKG21, Nov15, PFS21, PLT⁺21, RSSM18, Rei21, RH06, RNR16, RSS20, SG95, SRI⁺18, SO10, Str93, Tap22, UA04, WS07, WHL18, WO98, WWJ12, XYZ12, XYZ22, YTD15, YZ05, YC99, ZGA10, CW97, Heg95]. **Multiple-Coarsening** [Lee10b]. **Multiple-Grid** [MY18]. **Multiple-Input** [JML22]. **Multiple-Network** [LPMR19, PLT⁺21]. **Multiplication** [AKA13b, AA14, ABB⁺16, BSH16, BG12, DO15, DKGS15, EBSS⁺11, FHL⁺23, GHS⁺15, GKN18, HJ18a, KHW⁺14, Mat95, MDM15, SLvdGK14, SvdGP16, Van20, VR14, WH09, WP20, YB09]. **Multiplications** [FHH⁺18, LSY21, LXG⁺21, YL93]. **Multiplicative** [Cai94, CGG07, GBM22, HLZ13, KS23, SCGT07, Vil14, WY13, dIRRG19]. **Multiplier** [BLS14, CS23, IT09b, KL15, LC21, LNS15]. **Multipliers** [CG18, KMW99, KW00, WY12, YYWY18]. **Multiples** [UA04]. **Multiply** [BHL⁺20, BC13, DK11, HQR19, HT09, KAU18, NAS13, RD21, Goe97]. **Multiply-Add** [BHL⁺20, Goe97]. **Multiply-Connected** [RD21]. **Multipoint** [SBS98]. **Multipole** [BCR11, BT03b, BPT⁺14, Ber95a, CDGS05, CD13, CCFG23, CJ05b, CPD17, ED95, EG01, GR02, GSS00, GD03, GrM10, HA17, HEGH14, HR98b, KLZ⁺06, LCD14, MG07, MG09, MG11, MR07, NKLW94, OC03, OC05, PD15, RRR05, Sch94, WZC19, WMOZ22, EB96]. **Multipole-Accelerated** [NKLW94]. **Multipole-Based** [GSS00]. **Multiprecision** [CVW06]. **Multipreconditioned** [BKL⁺17, Spi16]. **Multiprocessors** [Sun96, NP93a]. **Multiprojection** [MFPG18]. **Multiquadric** [DD12, KW11]. **Multiquadrics** [CBN02]. **Multirate** [AdS22, CR21, FR23, LW22a, LCR20, LCR22, MB19, Pul08, RSS20, SRS19]. **Multiresolution** [ATV07, ACD95, ADH99, BW00, BGGM22, BC02, BH97, BT01, DDGS16, DMD⁺12, GvR22, GC17b, HBB⁺16, HC20b, HLL⁺22, JTZ08, KHKL16, LS00, NW22, WB00, Liu93, PR22]. **Multiresolution-Based** [BGGM22]. **Multirevolution** [LV20, Vil14]. **Multirow** [KMSM14]. **Multiscale** [AE08, ASR⁺23, ADP20, AD07, AKT16, BZ97, CSS10, CMZ19, CLLW20, CD01, CE16, DP10, DCSO10, DMD⁺12, FR15, Jin99, JK05, KKT19, KY05, Kra09, LM00,

LW22a, Li99, LNS15, MCL19, MPS18, MBKR22, OS15, SCW23, TW03, TW13b, VGOR20, WFG⁺20, WM11, XZLX22, ZCW10, ZMqCS21]. **Multisecant** [SM17]. **Multishift** [VD10]. **Multispecies** [BMV13, DWQY19, JS10, ZZZ21]. **Multistage** [AHHR16, Ban10, HS06c, ZRTK12, WRB⁺15]. **Multistep** [ADP20, Ban10, GNS22, GZT⁺19, HiH18, IM97, WZ03, ZFZ14]. **Multisymplectic** [FMR06, MRS14, MW15, CV16]. **Multisymplecticity** [RM08b]. **Multiterm** [Har08]. **Multiterm** [LZK17]. **Multithreading** [But13]. **Multitissue** [CC11]. **Multivariable** [Lin06]. **Multivariate** [ACD23, ATWK19a, AS22, AD19, BGM09, CS14, CKN06, FEL18, GSWZ20, GKNW18, Gri19, IM98, JKY21, LL03b, LN23, NX13, Rah13, SX16a, SX17, ZCPM20, ZNX14, CW93, Heg95]. **Multiview** [ZMS21]. **Multiwavelets** [ABI00, BW00, CCA03, WB00]. **Multiway** [WG19]. **Multiword** [FHL⁺23, JF16]. **Mumford** [CCS⁺19, DMN08]. **Müntz** [MC05, SW16]. **MURPHY** [GvR22]. **MUSCL** [Zen16]. **Muscle** [RDP08]. **MUSIC** [AILP07]. **MUSIC-Type** [AILP07]. **MUSTA** [MEF09]. **MuT** [LB11]. **Myths** [HvdG96].

N [Mau95, Ten98]. **N-Body** [Ten98]. **N-Simplicial** [Mau95]. **Nano** [GL10]. **Nanophotonics** [LSV17]. **Nanostructure** [ZMqCS21]. **Nanostructures** [MCL19]. **Nanotube** [JP14]. **Narrow** [KP09a]. **Nash** [dCFC20]. **Natural** [BDG20, CF07, HLMR96, LRD⁺04, NLY23]. **Nature** [CHZ21]. **Navier** [GHMY18, KW07, ABD⁺17, AOS20, ABN21, ABS96, ACL09, BH00b, BBSW15, BDK⁺20, BL07a, BW11, BS15a, Ber97, BBKW19, CHL20, CST16, DLTZ05, DS17, DHE13, EAOS21, ES96, Elm99, EHS⁺07, Ena97, FMW19, FF05, GRL10, GHST98, GW98, GK98, GM15b, GM19b, GZ19, HSB20, HLLM15, HG96, Hes97, Hes98, HLM⁺09, HBS00, JL11, JK05, JK00, KLW02, KL05, KGGs10, KOV15, KBG18, LW12a, LLP98, LL03a, LP22, LCW95, LLL08, LKBJ18, Lui01, MP08, NSK10, OR02, PCFN16, PT01, PP08b, PM95, PS12, RSD⁺20, RX17, RG09, SWT00, Sma01, SSF16, SU15, TLN14, TLLK09, TC99]. **Navigating** [GCN21]. **NCP** [Rad16]. **Near** [ALRT17, FD03, GrM10, JWC21, MAH22, MHS98, O'L01, RKW20, SW10b, TO15, Van95, LS23]. **Near-Circular** [RKW20]. **Near-Field** [GrM10]. **Near-Optimal** [FD03, JWC21, O'L01, TO15]. **Near-Singular** [MAH22, MHS98]. **Nearest** [BCT07, GCS19, ROO08b, XB16]. **Nearest-Neighbor** [GCS19]. **Nearly** [Hag00, ISW18, KPS19a, LPMR19, LS12b, Sta07, SM07, SLC01]. **Necessary** [HMMS22]. **Nedelec** [SLC01]. **Needed** [CG17, IW14]. **Needle** [CS94]. **Neighbor** [GCS19, XB16]. **Nematic** [MMRN15, ZYLW16]. **Nernst** [HS21, XL20]. **Nested** [AMM⁺10, AEFM17, BvG15, CZ10, EN08, FKMR19, GPP95, GBDD10, HR98a, LM15, NX13, RWW14, WRB⁺15, ZND18, ZS18, ZMS21]. **Nested-Batch-Mode** [WRB⁺15]. **Nesterov** [DH21]. **Network** [AB16b, BPS13b, BPS13a, CLL20, EERT23, FMRR13, KY19b, LPMR19, LT21, NKGG21, PLT⁺21, RGG15, SM19, SMR16, TP21, Wan07a, YGS⁺21, YLG22, SBC93]. **Networked** [Her08]. **Networks** [AD21, AS21, AS22, AE22, ACHN21, BHN10, BSV19, BGPS21, BK18, CYDK21, Egg18, EKLS⁺18, EdDP09, FGH⁺08, FK18, GaP08, GPZ17, GN23, GJ21, GK13, HHZ22, HK03, HJKK22, HLX23, HGPM14, KO05, KK23, LS16a, LSM22, LGC⁺23, LMRS21, LPY⁺21, MTV16, MM07, NCCR22, PLK19, PEDD12, SDNL10, SAY03, SAE10, TWJ⁺23, Wan97, WTP21, YZK20, ZGK20, ZHL21, CC96]. **Neumann** [BR95, CGSR20, FCR93, Fli13,

FK00b, GL21, HN06, KL06, KL13a, LV10, MB19, Nas09, NXDS11, NCT99, QZZ19, SW16, XYZ12, XYZ22]. **Neural** [AD21, AS22, CLL20, CYDK21, EERT23, GN23, GJ21, HHZ22, HJKK22, HLX23, KY19b, LB15, LMRS21, LPY⁺21, NCCR22, PLK19, PvdVvG17, RAB⁺14, RC06, SM19, SAY03, TP21, TWJ⁺23, Wan97, Wan07a, WTP21, YGS⁺21, ZGK20, ZHL21, SBC93]. **Neuromagnetic** [BBR08]. **Neuron** [AS22]. **Neurons** [AN16]. **neurophysiology** [GM96]. **Neutral** [COZ96, WL08, WH13]. **Neutron** [CMM⁺07, FHL13, HHM17, KMS15, KWG⁺20, SG11]. **Neutronics** [WKKP13]. **Newest** [AGK18]. **Newton** [BG05a, BG05b, CC12a, MR17, PBC05, AW15, AHDK14, BC10, BM01a, BBM11, BLMS22, BG05b, BU15, BHMx18, BVW03, CC16, CGK⁺98, CK02, CL11, CGO22, CZ10, CBDW15, CX08, DFG15, DGK⁺16, DP03, DL22, EW96, EV13, FLX21, FSvdV98a, FGM95, GC19b, GV09, HJL⁺19, HYC16, HLM16, HPS22, KFR21, KMT98, KSD10, KR99, KVMK01, KWG⁺20, Lan10, LWYxY18, LGY⁺23, LL08, LK15, LHL⁺22, LCY⁺20, LC23, LR98, MV00, MB17, MWBG12, MBVO13, MPS09, OS98, PW98, PT01, PP08b, PMSG14, PST15, PMSB12, RWW14, SL10, SM17, SGS22, SMYS21, SQO02, WC23, Wic17, YHC16, YBM⁺18, YP98, ZSPL21, dSK11, vWBV09]. **Newton-Type** [CZ10, HLM16, YP98, MV00]. **Newton/Chord** [KMT98]. **Newton/Inexact** [Wic17]. **Newtonian** [DRW20, FGO20, GP96, Lee14, MM14]. **NFFT** [PS03]. **NFFT.jl** [KBG23]. **NI** [CGQ10]. **NICAM** [TGS08]. **Nicolson** [Mu97, WRSZ18, JILGZ20, LPP09, Tie18]. **Nikodým** [Man99]. **Nine** [SY08]. **Nitsche** [CEP20, DFJS19, GSV20b, GSV21, LR12, Leh15]. **NITSOL** [PW98]. **NLEIGS** [GVMM14]. **no** [BEM94]. **Nobody** [HMRR19]. **Noda** [DL22]. **Nodal** [AM20, BFK05, CWD13, MMA98, MNP07, NX13, PSC⁺16, RU01, SF08]. **Nodded** [CCSS08]. **Node** [ACK19, DKS21b, LLHF13, MOSS17, SKF18, SK19, vdSF21]. **Nodes** [BMF12, Bog14, CW15, FF15, HT13a, Isa20, JM18, ZMS10]. **Noise** [BG10, BV16, BRW10, CC08, CGF21, FVV21, Gub96, GZ19, HLZ13, LKBJ18, MO00, MW11, NT18, RW06, Vil14, WGT14, ZYZ09, ZTRK14]. **Noises** [GDLS14, MT97b]. **Noisy** [BTY08, HKL⁺22, Kus00, LS16b, LT09, MT19a, SXXN22, SKJ⁺13, UWWP23, YGCP96]. **Non** [AM04, Bou01, CGL⁺13, CPV95, DFQ14, DTY18, FS14, FGO20, GLR23, GGS19, GLMS22, GS14, GP96, KXH21, KPT16, KMR01, LRD⁺04, LZ16, MB13, NN18, RJLW20, Sta97, TY15, VYX16, bZOW07, FGN93, Fre93, YZ08]. **Non-DTY18**. **Non-Boussinesq** [LRD⁺04]. **Non-Cartesian** [DFQ14]. **Non-Coordinate-Aligned** [MB13]. **Non-equidistant** [bZOW07]. **Non-Galerkin** [FS14, TY15]. **Non-Gaussian** [AM04, GS14]. **Non-Hermitian** [CGL⁺13, GLMS22, KXH21, KPT16, KMR01, VYX16, FGN93, Fre93]. **Non-Iso-Homogeneous** [YZ08]. **Non-Isothermal** [RJLW20]. **Non-Lévy** [LZ16]. **Non-Newtonian** [FGO20, GP96]. **Non-Overlapping** [GLR23]. **Non-Self-Adjoint** [Bou01, GGS19, Sta97]. **Non-Selfadjoint** [CPV95]. **Non-Simply** [NN18]. **Nonadaptive** [SX16b]. **Nonadiabatic** [BG11, BGH19]. **Nonaligned** [BD99b]. **Nonasymptotic** [BHvST14]. **Nonautonomous** [QCJX21]. **Noncentered** [DMBB10]. **Noncentral** [KB96]. **Nonclassical** [GI99]. **Noncoercive** [Bur13, Bur14]. **Nonconformal** [PL12]. **Nonconforming** [AWW19, BGPS21, BBD16, BH16, CDK19, CKY98, DFQ14, ISG15, KV20b, KV20a, Kan03a, KW16].

Nonconservative[CPPR12, DRFNP07, MEF09, WFG⁺20].**Nonconstant** [MRFV18].**Nonconvergence** [DHHR19]. **Nonconvex**

[BZ21, GRMS09, HD15, KPP07, MV06, NWW97, QS08b, SWW08].

Nondegeneracy [Ush01]. **Nondestructive**[JLZ16a]. **Nondifferentiable** [CGS02].**Nonelliptic** [Yav98]. **Nonequidistant**[KBG23]. **Nonequilibrium**[KM98, SYY09, WFG⁺20, XZLX22].**Nonequispaced**

[KV12a, PP13, PS03, DR93b].

Nonequivalence [HLM16]. **Nonflat**[DQ22, KLLM22]. **Nonhomogeneous**[DRFNP07]. **Nonhydrostatic**

[GRL10, GKC13, RG09, YC14].

Nonhypercube [WI12b]. **Nonintrusive**[EFHT23, FUNB18, MKW23]. **NonInvasive**[MBVOT22]. **Noniterative**[GST19, KBV09]. **Nonlinear**

[AIP19, AEFM17, AD20, ADKM03, ABF96,

APSG16, AK17, ABR17, AM22, Ami94,

AF22, ABK11, ADH99, AD07, AL97,

AdSK19, AMV22, BLV18, BK98, BK99,

BJM03, BSHL14, BPR04, BM01a, BBM11,

BEEM18, BB15b, BDKR21, BG17b, BLS14,

BCF12, BF06, BF22a, BLR14, BS99b,

BGR10, BC99, BM00, BGH23, BMV13,

Bur23, BFI07, BG04, CG18, CL11,

CGKM16, CZZK16, CCG14a, CTB15,

CGR14, CM09, CNP12, CGM99, CCJ07,

CS10a, CBG16, CK19, CC19, CCA20, CL21,

CN10, CW12, CH11, CSW10, DKDH20,

DSB99, De 12a, DH21, DGK⁺16, DHO12,DL22, DCL⁺21, DGvdZ18, EGKS94, EV13,

EFOS20a, EFOS20b, FMOS17, FBF15,

FF05, FSvdV98a, GJ17, GR05a, GLR23,

GLL⁺15, GJP⁺14, GRPG01, GH02, GPW22,

GCB15, GN19, GC19b, GMS02, GH14,

GHKS14, GS97, GVMM14]. **Nonlinear**

[GPT22, GN07, HH02, HRP20, HL20,

HKL23, HJ98, Hok17, HM20b, HKT01,

HXB13, HLM16, HLL⁺22, IM97, ISG15,JK07, Jar19, JR19, KB08, KA95, Kea97, KZ00, KRR23, KLR14, KLR15, KLRU17, KM98, KLS08, KKT19, Kus97, LP13, LRW96, LV13, LU17, Lay96, LMW15a, LWZ17, LZ20, LZ21b, LW14, LMT18, LSM22, LSV13, LSZ11, LKK18, LHL⁺22, LYZ23, LK04, Lui00, LCY⁺20, LCK21, LC23, MIS03, Mar94, MO00, MP08, MG12, MT99, OW00, OPR22, OPR23, PL03, PW15, PW98, PPT11, Pla98, PBV18, QFW22, RPK18, RLM⁺00, Sai20, Sch03, Sem10, SHP07, SY18, SB05, Slo02, Sma04, ST23, SVX15, TW05, TWZ21, TP21, TWJ⁺23, Tra95, VMM13, VC00, WS95, WL08, WBTG18, WHL18, WSH14, WB08b, WK03, WvdZSvB18, Xue18, YDF97, YYS16, YHC16, YZ07]. **Nonlinear** [YZ08, YD06, YHL19, YYY11, ZKN21, ZTBK18, ZZ04, ZzSpH14, ZRK15, ZCQ21, dSGK⁺15, dWPR20, AGC96, AO93, Car93, Sar97, TR93].**Nonlinear-Programming-Based** [KB08].**Nonlinearities** [JKM14, SKP22].**Nonlinearity** [BV20, CL11, GM00a].**Nonlinearly** [CK02, DH16, HYC16, LK21].**Nonlocal**[CCKP21, CGV18, DTY20, DHZZ18, DCL⁺21, FK19, GDC⁺23, GML⁺21, KM97, KKS21, PJZ23, RAB⁺14, XJBS12, XJS13, ZMqCS21, ZZZ21, ZHDZ17, DHS22].**Nonlocally** [LH19]. **Nonmatching**[MLL13, RT01, WK03]. **Nonmonotone**[BDKR21, Toi96]. **Nonmonotonically**[TN16]. **Nonnegative** [AN16, CIZ16, CL08,

DHHR09, GW17, IL16, KP11, LD11, NSJ03,

PNL⁺21, SX11, ZJX14, FS96].**Nonnegatively** [BV03]. **Nonnegativity**[BH20]. **Nonnested** [Cai95]. **Nonnormal**[vD03]. **Nonnormality** [vBdB05].**Nonorthogonal** [DGK98]. **Nonoscillatory**

[BT06, CFR05, CV07, DB07, GR02,

HKYY16, JT98, LN03, LT00, QS05a, QS08b,

ZLS12, ZQ18, CCJ21]. **Nonoverlapping**

[Den97b, LPP19, MRS04, PL12, RL10,

RGG06]. **Nonparabolic** [DJP00].

Nonparametric [EMT09, ES00, HHM08, Hei13, LYLC17, Rei13]. **Nonpolygonal** [And08]. **Nonpolynomial** [BB10]. **Nonreflecting** [LS02]. **Nonsmooth** [BBSW16, BCK21, CZZK16, CKXZ18, HTMM15, IJT11, JLZ16b, KP12a, Kra09, MV06, HJ18c, LMM18, vLA21]. **Nonstandard** [BTT13, RU01]. **Nonstationary** [BTGH12, SMN10]. **Nonstrictly** [TW95]. **Nonsymmetric** [BDD⁺97, BN05, BGL08, BBM11, BT98, BSvD99, BHT00, BMM⁺10, BCMM03, Bur13, Bur14, CJH11, CKD13, CS96, CKY98, ES17, EPV94, Fan22, HWD02, HZ10, Ips01, Jou94, Kas95, KOV15, Krz01, LM20, LZ99a, LSS03, MS07b, MRS18, MS19, MMRS19, MN11, PV95, Ruh98, ST08, SIS96, SG95, SvG08, Sta94, TT07, Ton94, Zha97, dDBV14, dSL05, CGS⁺94, DS93, ES96, ST94]. **Nonturbulent** [CBS00]. **NonUniform** [SR16, Ain14, BBBV13, BGOD08, BMaK19, BB15c, CPG20, CKRS07, FCM12, GMSB16, NL99, RAT18, Zen16]. **Nonvariational** [LP11]. **Nonzero** [CXY10]. **Nordsieck** [Kul12]. **Norm** [BM18, BPS14b, BLP14, BM00, BBR08, CKM23, GL08, GS98b, KA95, LLCW22, MS19, Meu11, Pic10, Yan18]. **Norm-** [GS98b]. **Norm-Type** [LLCW22]. **Normal** [AJS22, KM05, MO10, ST16b, VL10, WR13, YPN⁺01]. **Normalized** [BD04, BL08a, LC21, TW13a, WJW21]. **Norms** [ACO98, ACCO00, FNNB05, GMO14, GG94, GG95, HS17, Hof04, KR00, RSNR17, Ste00]. **Note** [ADGP07, CW16b, GK11b, GG95, Ips01, KW10b, LKK18, MGW00, QQSvdG01, SC03, WB99, Jin95, Tre93]. **Notion** [BYK05]. **Novel** [CGDD11, DFS17, EKSS16, EOV05, FO08, GLR⁺16, GKK10, HNU23, HY10, HL17, KSW20, Lee10a, LJ17, MFJ19, MTM08, QZZ19, TMA18, Xu94, YTLI11, Yan21, Zha22b, ZLTA15, ZH21]. **NR** [CLQ12, CLW13]. **Nuclear** [LLCW22].

Null [BN00, HHLW15, VD23]. **Nullspace** [Le 09, RG13]. **NUMA** [GKC13]. **Number** [AMHR13, Bja19, CKQ14, DLV17, FMW19, FH21, Fer98, GH15a, HR14, KR17, KL15, LSW02, LX16b, MPV21, NH12, NBA⁺14, Pel18, SSDN12, SV08b, SV11, Ste11]. **Numbers** [EL01, HL17, KV05, LFM22]. **Numerical** [ABBM98b, AB17, APZ13, ACY⁺20, ADKM03, ABH03, APvDG12, AE18, Ama98, AIL05, AP97, AT19, AO17, Aru12, ACCP13, ARM23, BH00b, BL03a, BJM03, BS05d, BMTZ13, BBC⁺01, BW20, BN00, BPB07, BGK15, BK08, BBKS20, Ber98a, BM05, BK04, BLM22, BCSS14, BI09, BCM15a, BN21, BK00b, BV09, BHT11, BBC07, BPT19, Boz09, Bre17, BBM⁺08, BTT13, BJ08, BLL07, BGMW17, CG18, CGGP19, COZ96, CLMM00a, CKS01, CL10, CW22, CLPS03, CZK15a, Car07, CM09, CRS⁺18, CP05, CGP12, Car93, CEOR18, CH08a, Cha07, CGK13, CGV18, CDF18a, CLAT10, CRS20, CS23, ICCVEKV17, CW06, CK98, CH09b, CG96, CFH19, CBF17, CK94, CHL16a, CHL16b, DO11, Dar21, DP98, DK11, DMMO05, DNP⁺04, DJP00, DL17, DHL⁺23, DLM16, DQQ13, Don06, DV98, DMM19, DG99, Du11]. **Numerical** [DHZZ18, DCL⁺21, DP16, Dur16, EL03, EP06, EF05, FGMP13, FGMP14a, Fai03, FTY15, FMM98, FL04, FY14, FR15, FMS17, FMR06, Fro12, GS16, GK00, GHHK15, GHTW00, GGK⁺04a, GMV99, GT06, GV16, GKD05, GGKM07, GMS02, GKT09, Gre03, GV07b, GX20, HRT10, HT13b, HM98, HBB⁺16, HKL⁺22, HHZ22, HKM20, HLP08, HRS19, HR99b, HC98, HHL07, HCW20, HHL15, HLM03, In99, Jam98, JK12, JMNS16, JSCB20, JLYZ23, JW05, JW13, JK21, JZ00, KB08, KP12a, KW07, KKN18, KKF11, Kla99, KLN20, KLZ22, Kog22, KS15a, KH18, Kon21, Kös07, KS15b, KWD22, Kup98, KGT07, KM05, LQ19, Lan94, Lau22, LLP98,

LL02, LZ17a, LG97, LMPQ03, LR20a, LS22, LL00, Li03, LB15, LO03, LLL08, LS09, LC05b, LP06, LSPRV21, LLS19, MR09, Man05, Mar94, MSW05, MP20b, McL95].

Numerical

[Men94, Mic01, MT97b, MT06, Mis01, MZ94, Mit23, MRKS21, MS07e, MDC98, MHS98, Nas09, NWW97, NNH99, Obe13, PBP14, PS18, PL03, Pem93, PTT20b, Pic10, PABG11, Por01, Pup03, QNNZ19, QRV21, RPK18, RR98, RW06, SSW18, SRCG93, SBS98, SOTB21, Sei95, SCM10, SY10a, SP02, SO15, SKPD22, SKP22, Ste01, SW15, ST11, TR93, TYZ19, TXZZ22, TVV20, Tim19, Toi08, TW17, Tou22, Tre97, Van95, Van00, VW98, VZA⁺23, VD23, VR14, WS95, WT23, WWY09, WDGK20, WFG⁺20, WM93, Wen08, Wen10, WP98, WKM⁺07, WS20, Wu21, XBC96, XKWY08, XK08, XT06, YTLI11, Yan21, YZ07, YZ08, YP98, ZLLT15, ZD09, Zha18b, ZHY21, ZWWZ21, ZW03, ZCP06, ZYLW16, Zhe07, ZK15, ZHDZ17, ZS02, dCFC20, ABS96, BS94, Ber97, BH97, BGP94, CDH97, Rán93].

numerical [RST93, PLVG⁺22].

Numerically [LRP07, LP08]. **Numerics**

[ACF09]. **Nutshell** [HL98]. **Nyström** [ARS21, CSS93b, Cas05, CCC18, LW22b, PT99].

O [AGL10, HKA⁺21]. **Objective**

[KHRvBW14, ten95]. **Objectives** [San10].

Objects [BCAG22, JL20, NW22, ZB12].

Oblique [EO16a, OPR22, TLLL23].

Oblivious

[GST23, LFLS08, SLFL06, YB09, ZGG17].

Observation [AC22, HKL⁺22, ZGA10].

Observations [Bur23, CYDK21, EN16,

Har11, MT19a, NMFP16, YDK22].

Observed [JKLZ18, LKBJ18]. **observer**

[BDP96]. **Obstacle** [BCH12, MRW15,

MZ94, NS06, RZ03, WW10]. **Obstacles**

[LS09, AE95]. **Obtain** [CAB04]. **Obtained**

[BK11]. **occasion** [PS97]. **Occupation**

[KTSB19]. **Ocean**

[ADM10, HZXC16, KH14, NK13].

Oceanography [XBC96]. **Octahedron**

[AB08b]. **Octree**

[FS22, HHM07, SB10, WM11, HH11].

Octree-Like [WM11]. **Octrees**

[BWG11, IBWG15, SSB08]. **ODE**

[Ber00a, Bjø95, CPR11, FHFR19, GDB⁺22,

GS97, HN22, HJ07, Lie93, LCJ96, ÖB05,

SR97, SBND11, ZCS22, vd97]. **ODE-IVP**

[vd97]. **ODES** [Bar05, CV94, AP97, BN13,

EM96, EYL03, JS93, LZK17, Log03a, Log03b,

SB98, ST22a, Tap22, Ver94, WE13, ZS14].

ODES/DAES [Bar05]. **Odyssey** [ABH03].

Off [LYZ20, SE13]. **Offline** [SW09, WCG23].

Offline-Online [WCG23]. **Often** [WS05].

Ohta [CGO22]. **Oil** [BMM98]. **On-Line**

[OS15]. **On-the-Fly** [TY11]. **Once**

[ILN21, MPW18]. **One**

[AKK18, AP01, AHR12, BT06, BFK05,

COZ96, CM98a, CGS02, CGV18, CC12a,

FK21, GL21, GBCT10, GC19a, GT06, GV09,

Haz08a, Haz08b, HC95, KS17, LS95, LZZ18,

Liv08, MR07, PMR16, Red99, SWX16, SV11,

Sta07, SMR01, SJD14, Vil09, VS03, WLL⁺15,

Wen08, Xu04, YHQ12, SS93a, DSZ13, Hes97].

One- [BT06]. **One-Dimensional**

[AHR12, COZ96, CGS02, CGV18, GC19a,

GT06, KS17, LS95, Liv08, PMR16, SWX16,

SJD14, Vil09, VS03, Xu04, YHQ12, LZZ18,

SMR01, Hes97, DSZ13]. **One-Shot**

[CC12a, Haz08b, Haz08a]. **One-Stage**

[AKK18]. **One-Time-Step** [GV09]. **Online**

[AF11, KR23, LPSB17, PW15, Peh20a,

SBK18, SW10a, WCG23]. **onto** [Ama98].

Open [CWY23, HG96, LJL09, VS03, WC22].

OpenCL [DARG13]. **Operation** [CF07].

Operations [ASZ07, BTK19, BB09, JK12,

KV13, MW08b]. **Operator**

[AN17, BBB14, BPS14b, BS16b, BZ21,

BS06a, CCC17, CS18a, Che13, CDB13,

CKO15, DHS22, DG16, DHO12, DY23,

DMD⁺12, FRS19, FKK⁺14, GHHH17, GS18,

GLQ16, GLQ18, HHLW15, KS23, LTG22,

LWW22, Liv08, MPRW98, MKW23, Peh20b, PC98, QFW22, Rah00, RZ03, RSW10, RC23, Rub12, UWWP23, WLZ18, XZ10, YYWY18, ZB12, vGEV07]. **Operator-Based** [RSW10]. **Operator-Coarsening** [FRS19].

Operator-Splitting

[GLQ16, GLQ18, LTG22]. **Operators** [ARM⁺19, AWW19, AP19, BS96a, BT04, Beu05, BC02, BZ15, CW22, CDY07a, CJ05b, CJ95, DZ15, Doh07, Elb06, FF15, Fu21, GGS19, HDZ16, JML22, KH22, KX96, LT21, LW97, MC10, NN18, ODN17, PTT20b, PS19b, SRS12, SY08, DFK23, TW03, TCDS21, TBH23, VR14, WH15, Win10, XL18, YR98, ZN16, Nat95, Nat97]. **Optical** [BIK02, CILZ15, HPS08, KdS05, LC05b, OKdSG17, RBH06, RtTBAI21, SKMF15, YSS07, ZMqCS21, dSK11]. **Optically** [Lee10a]. **Optics** [Du11, GRPG01, QL06].

Optimal

[AGR⁺20a, AMVR17, AA00, AAD11, APSG14, APSG16, AS18, AH20, AFS19, AFOQ19, AV21, AS93, ACLZ15, AC22, ALM22, AHHR16, BKG16, BBMZ20, BGL06a, BW20, BBH18, BHvST14, BH11, BFK05, BG05b, BK00b, BIK02, BvW09, BBO09, BCK⁺18, CGR14, CF07, CWL⁺14, CK98, CCO11, CBDW15, CS10c, DHS22, Ded10, DZ12, DP07, DP19, EÜ09, ES18b, FB21, FF15, FSV22, FD03, GS18, GXY15, dMGF17, GPS95, GM11, HRT10, HSB12, HRP20, HN06, HAS20, HM20b, HR99b, HCX22, HCL23, HLX23, IR98, Jac03, JWC21, KB08, KKZ17, KLS⁺15, KLLY20, Kla98c, Kny01, KALO07, KBD21, KL12, KT17, LPSB17, LSTY21, LdGK20, LLX15, LYLC21, MH17, MRS04, Mar01, MNS07, MP20a, MSS10, MCB18, MK08, MZDK22, MRW15, MPV21, MG23, MGH21, NRMQ13, Not00b, O'L01, OW02, OSS22]. **Optimal** [PWG16, PG22, PST15, PBtTB⁺15, Rav05, RDW10, RW11, RWA95, Rei20, RW13, RCC18, RCLO18, ST03, SStM23, SX16b, SP16, SSC⁺15, SCW⁺17, Sta07, SM07,

SM15, SBMR18, SW09, SW10a, SJD14, TO15, TWK18, TUV10, WZB⁺23, Wan07a, WG00, WG12, WL20, WCG23, Yam02, Yiu95, ZWH⁺14, ZFwCW15, BDHS10, Cai93, DGHL12, Lin16].

Optimal-Transport-Based [MCB18].

Optimality [CCS97, Don06, GKS20, NM13].

Optimally [BS18a, BSU19]. **Optimization**

[AEMM16, AHT12, AOR18, ABIN20, ALM22, ADLW19, BCS07, BCMW20, BM18, BWB19, BPS13b, BPS13a, BGPS21, BLMS21, BG05a, BG05b, BF22a, BLVZ23, BH08, BFP22, BFR23, BPT19, BGR10, BHM⁺21, BK20, BMPS22, BDS20, BSS21, BLNZ95, CA16, CC12a, CJY16, CKXZ18, CDM⁺13, CSW10, DP17, De 12a, DH16, DF10, DTR21, DKK⁺19, DMN08, Doh07, DFJS19, DS17, DGSW10, DW15a, DSL21, EKM94, EE14, EN16, EFOS20a, EFOS20b, EHLW20, FM16, FGH⁺08, GLL⁺15, GLxY19, GHHK15, GU17, GW20, GJ05, GHKF22, GLZ22, GM19a, GPZ17, GHN01, GJM94, GV07b, GKL08, GHKS14, HOY03, HM10a, HT13b, HSU21, HNU23, HS06b, Haz08a, Haz08b, HJ18b, HK03, HL19, HRS12, HKT01, HJL⁺19, HCL23, HGZ17, HMMS22, ISW18, KFR21, KSD10, KLST06, KS07, KLT16, KM16, KHRvBW13, KHRvBW14, KRT21, KSV16, KBP17].

Optimization [LCH09, LU17, LS13a, LN05,

LZ23, wLxY00, LWZ13, LGC⁺23, LGH⁺13, LNA⁺11, MPRS23, NWW97, NRO22, NLY23, PWF18, PFS21, PR09, Par17, PNP13, PSLG14, PDC99, PMSB12, PBC05, PC07, QGVW17, RP01, RL17, RG07, RDW10, Rei21, SWW08, SWB16, SSW12, SV23, SPS18, SXXN22, SW17, SSJB17, SU15, Ste16, SB15, Toi96, TTY16, VHSP20, VMV15, VLM22, WB08a, WRB⁺15, WYGZ10, WRS08, WH09, YHC16, YZZ19, ZKN20, ZZWZ14, ZDZ16, Car93, DLG97].

Optimization-Based

[ADLW19, BCMW20, BPS13a, KBP17, Rei21, SV23, YZZ19, HMMS22, ZDZ16].

Optimization-Constrained [LCH09].

Optimizations [HML⁺04, LSZ23].

Optimize [BSHL14, WBS⁺17]. **Optimized** [AdSK19, ADM10, BM01b, BC13, CBG12, CK94, DMBB10, DGGG09, DGK23, DKZ09, DGL⁺12, EDGL12, GMN02, GK12, GX16a, GZ16, GV19, GV20, GI17, GSV20a, HJN17, HKB21, IT09b, Jam98, LBHH22, LNS15, MHL⁺15, MM07, OKD16, PKD13, QX08, SCGT07, SAB14, XSWG23, ZSB16].

Optimizing

[AB16b, Fie98, GRPG01, Kaw18, KKLS05, MHL⁺15, OPR22, PD15, Rán93]. **Optimum** [EHS19, Le 01]. **Option**

[GMP19, IT09a, LZ16, RW07, WWH17].

Options [AO07, FO08, HY08, HFL11, IT09b, KL11, LFBO08, Mar03, OGO13, OGO16, RO12, Toi08, ZK14c, dFL05].

ORBIT [WRS08]. **Orbital** [DF21]. **Orbits** [CD06, DDF00, GM00b, LMR97, LCH99].

Order

[ACVZ12, AVZ13, Abg09, ADR14, AT20, AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, ABMR11, ASR⁺23, ABdSF15, Ain07, AAD11, Ain14, AJ21, ABF96, ABHS22, ALLK15, ACG20, ABST13, AK17, AHT12, ALMR17, AABM13, AWW19, ADGM98, ABIGG16, AF11, AT19, AD18b, ADK⁺18, AF22, AM20, ABMP22, AP12, AS06, AK04, AIV98, BBSW16, BCAG22, BBMZ20, BS05a, BCR11, BM11, BT06, BOB⁺19, BBHJ21, BS05c, BR19, BGN07, BMF19, BB15a, BB15b, BG21, BBKT15, BCI22, BM08, BBF⁺22, BPR99, BT97, BBD16, BFS16, BF22a, BZ15, BLR14, BQRX22, BV16, Bre17, BTT13, BLM03, BF22b, BSU19, BS18b, BGL06b, BCDE21, BLL07, CI19, CLMM00a, CLMM00b, CL10, CCJ21, Cao07, CR23, CCKP21, Cas05, CDK19, CS18a, CW18, CGV18, CMM00, CW15, CK15, CDF18b, CLAT10, CD15b, CYZ17].

Order [CCA20, CEP20, CMO10, CFJT18, CM99, CG07, CK94, DW97a, DW98, DM13a, DGLL21, DG09, DFN12, DL23,

DKR12, DKK⁺19, DAE02, Doh21, DMRR19, DGP18, DCB22, DS16, DWQY19, DL20b, DMD⁺12, DK98, DKM14b, EO15, EO16a, EG22, EG23, EIJH20, EHLW20, EIL01, FMM98, For06, FL19, FK21, Fu21, GV19, GH07, GM17, GW15, GBCT10, GMvdV18, GG19a, Gia18, GM14a, GG19b, GMS21, GZYW18, GZW18, GZW20, GB06b, GPA18, GLT09, GM15b, GNPT18, GdLP⁺18, GM19b, GM23, GM11, GX16b, GLW18, GX20, GM04, GN07, HHT03, HO18, HW13, HSMT20, HL09, HZXC16, HLP23, HJ18b, HRT13, Hen05a, Hen06, HO94, HO96b, HH11, HS01a, HMM⁺21, HMMS22, ISG15, ILK05, JBH20, Jam98, JK15, JK11, JILGZ20, JLZ17, KM11, KP09a, KO05, KH22, KT05, KL05, KPL13, KZK17, KS20].

Order

[KR11, KPS19b, KP22, KCB17, KW16, KP05, KS14, Kup98, KL00a, KPW17, KL11, Kye12, LO11, LP11, LZG20, LE10, LL22, LU17, LMMR00, LR20a, LM15, LMM17, LL00, LPR02, LG09, LLLX16, LD16, LZZ18, LYZ20, LP23, LN03, LM14b, LM14c, LSZ11, LY14, LTW18, LGW19, LLZW19, LWW22, LMRS21, LCR20, LX16c, MT22, MGG19, MNS07, MSL13, MC10, MRS14, MKW23, MW22, MRS16, MG23, MN18, MMA98, MS18b, MAK20, MWY17, MCV17, NHSS13, NN14, NS06, Not00b, OKdSG17, ODN17, Ols07, OR18, OKGG⁺23, ÖB05, PWF18, PL03, PT99, PCFN16, PLVG⁺22, Paz20, PKD23, PDA09, PSC18, PQR20, DHM⁺23, PP12b, PMSI21, PJ96, PN19, QS18, QS08b, RRR05, Rav02, RL10, RKLN07, RMC12, RM08a, Ros05a, RWX07, STCK21, San10, SDNL10, SBK18, SRS19, ST03, Say15, SPKB13, SKWK18, SV23]. **Order** [SHP07, Sha21a, SC02, SC98, Str99, SJD14, Tad20, TBH23, TT20, TVA02, TM14, TPB17, VC00, VVM12, VB07, VSBH99, VGOR20, Vil14, Vil15, WMC12, WGT14, WP19, WDGK20, WJW21, WSK99, Wen08, Wen10, WMBT19, WM05, Win06, WS20,

Wu21, WZ21b, WX21, XH15, XMRI18, XQX15, XH05, YY18, Yan21, Yan22, YSS07, YCS16, ZBFN17, ZZK15, ZLLT15, ZS03, ZJC12, ZLS12, ZF14, ZFLB15, ZYSL15, ZSB16, Zha18b, ZHQ20, ZWP21, Zha22a, ZCS22, ZFZ14, ZHS10, ZLTA15, ZV22, Zim14, ZPE12, ZBdAF20, dVM08, vdVXX19, AdWR17, Alu96, ABL20a, CSS93b, GY05, HKYY16, HO96a, LSM93, Pem93, She94, She95, ZMC94, Zha18a, ZzSpH14]. **Order**-[MSL13]. **Order-Optimal** [MNS07]. **Order-Preserving** [AWW19]. **Ordering** [BT99, ÇAK11, DF21, GBDD10, HR98a, MKSG10, MM95]. **Orderings** [BSvD99, BT00a, BT00b, Day98, INS05, SO97]. **Ordinary** [Bre17, CP04, EM99, HV04, HJLZ18, IM99, KW15, KR12b, LLS13, McL95, RNR16, SB05, TSK09]. **Ordinate** [HHE10]. **Ordinates** [AKM14b, SH20]. **Orientation** [HH16]. **Oriented** [CPB13, CCH15, DMRR19, Gri95, GSS22, LW12b, LW14, PDTVM08, RL13, SCW⁺17, Wic17, WCG23, vdZvBdB10a, vdZvBdB10b, RG94]. **Ornstein** [BPB07]. **Orthogonal** [AK04, Bar00, BF95, BF06, BL99, BL03b, BDMFSL04, CGGP19, Car10, CEHN08, CW16a, CP03b, CL23, CSZZ20, CBS00, CG10, CLN12, CRT11, FHH⁺18, GL18, HM14, HLR18, IW14, JED10, KR23, KH00, KP12b, LN23, Mit08, MDA22, MNZ15, Nap23, PNL⁺21, PDG20, PDA09, Rav02, RSSM18, Sun95, Sun96, SLC01, WGB97, WLL⁺15, Zie12, von97, ALT93, Bia94, Rag95]. **Orthogonality** [CJY16, GLxY19, HN20, HJL⁺19]. **Orthogonalization** [GHKL22, Sta97, Ste08]. **Orthogonalization-Free** [GHKL22]. **Orthonormal** [WO09]. **Orthotropic** [GL22a, LOL13]. **Oscillating** [KSB11, WTWB09, Tsy97]. **Oscillation** [LP96, LLS22c]. **Oscillation-Free** [LLS22c]. **Oscillations** [LV20, LRP07, LP08, Pet05]. **Oscillators** [LK04]. **Oscillatory** [AKT16, CSS09, CCFG23, EY07, GASSS98, GN22a, HW14a, PHW19, SBK13, Vil14, YP98]. **Oseen** [AOR18, BN23, BO06, HSS08, Le 09, LP22, OV07, Wab05]. **Osher** [CCS⁺19, LPP19]. **Osmotic** [WFAP15]. **Ostwald** [GM20]. **Other** [Bal00, BCF01, O'L01, SM17, ZW03]. **Out-of-Core** [ADL⁺12, RS99, AGL10]. **Outer** [GGGL10, GY99, GPZ17, OKdSG17, Saa93, AA14]. **Outer-Product** [AA14]. **Outlier** [VR16]. **Output** [AA14, CHMR10, MP08, NS21, Yan18, ZFLB15]. **Outputs** [CAG⁺19, PDH09, PN19]. **Over**- [MSM14]. **Overcoming** [EO15, EO16a]. **Overdetermined** [DN13, ST96]. **Overlap** [AKA13a, Bre00, DW94, GMN02, GZ16]. **Overlapped** [SX11, WH95]. **Overlapping** [AD20, ABPW21, BJNN02, CPW15, CGM⁺21, CB22, CH94, DMBB10, FFSS13, GR05a, GLR23, HKR16, HKKR19, HHK19, HKK⁺22, Hen05b, Hen06, JP95, LJ19, LS05a, LWSP22, MLL13, PZPR07, Pet99a, Pet99b, ST00, Wu99, Cai93, Goe97, Pet93]. **Overrelaxation** [HDOS23]. **Overresolving** [BSS17]. **Overset** [BCI22].

p [ST98, TBH23, BOF16, HK95]. **p-Multigrid** [TBH23]. **P-Version** [HK95]. **P3DFFT** [Pek12]. **p4est** [BWG11]. **Package** [KMRW97, RTH17]. **Packet** [LQ19]. **Packings** [TGPK23]. **Padding** [BR11]. **Padé** [GSS12]. **PageRank** [FLM⁺05, GGGL10, GK11b, LM05a, WWJ12]. **Pair** [Le 05]. **Pairs** [EH18, PT99, SS93a]. **Pairwise** [LT21]. **Palindromic** [LWK⁺16]. **Panel** [RRR03, Rot96]. **Panels** [RRR05]. **Panich** [KL13a]. **Pantograph** [HXB11]. **Papers** [DSA23]. **Parabolic** [AB08a, AW20, AAI98, And16, AH09, BBC⁺21a, BEEM18, BC09a, BV20, BCF12, BF06, BF14, BvW09, BV16, BWZ10, BW09, CH09a, CDG17, CGR14, CCG14b, DKO12, DGvdZ18, FMOS17, FH06, GN16,

GPHHAPR18, GM19a, Gra14, GS00, GSS22, HLNS19, HVW95, HV95, HJX23, JWC21, KK18, Kye12, LZ21a, LSTY21, LV13, LLW16, LSC18, LYZ20, LSZ11, LPP09, LW19b, MNS07, MSW05, MPRW98, MSS10, Moo00, NS19, PS11a, Pic03, PMSB12, QX08, RHL⁺21, SV08a, Slo02, Tou22, VV05, WG12, WvdZSvB18, Yu01, ZS02, ZFHS15, Bøe93, Cai94]. **Parabolic-Elliptic** [PS11a]. **Parabolic-Parabolic** [PS11a]. **Paraboloid** [ECH⁺23]. **Parachute** [KP06a]. **Paradigm** [BH00a, BL04a, DKK⁺19]. **PARAEXP** [GG13]. **PARAFAC** [SMYS21, KU18]. **Paragon** [Rot96]. **Parallel** [ABM⁺13, AKK14, AAB⁺16, ABB22, ADLR15, AAI98, ACD18, ABI00, BMP14, BMNV20, BMNV21, BDD⁺97, BDHS10, BDS98, BH00a, BL04a, BO07, BMaK19, BS98, Bar00, BPT⁺14, BPSV15, BSV19, BYL13, BDvdG05, BFG⁺16, BG05a, BG05b, BMF12, BK17, BBD18, BtVÇG⁺10, BTB05, BGMR01, BBR08, BG12, BRK16, BWG11, BHK20, CGK⁺98, CR16, COS06, CV15, CGG⁺14, CC12a, CC06, Cho00, CP15a, CMO10, CHO12, CG93, CP95, CKLN98, CML⁺18a, CML⁺18b, CDFQ11, CFM98, DDF⁺21b, DGHL12, DKKP14, DYZC22, DBA19, DGR⁺17, DG99, DGvdZ18, Ema10, EKSS16, Ett16, FKMR19, FFK⁺14, FNL⁺19, Fie98, Fis19, FW97, FJP99, FR19, GV07a, GG13, GN16, GHRR19, GLRS23, GKV00, GKM⁺17, GCB15, GM21, GAMV13, GG05, GM19a, GKRB16, GKS98, GKK10, Gri95, GKL08, GDL07, GR05b, GH97, HKR02, HHLZ21, HKA⁺21, HO15]. **Parallel** [HW14a, HKO99, HRT03, HIT19, HKR16, HRR23, HJ98, HW94, HL95, HJS99, HK00, HS06c, HWD02, Hen06, HSF07, HP94, Hig95, HLNS19, HKB21, HH16, HVW95, HKT01, HDF⁺19, HYW20, HGRW16, HPS22, IBM01, INS05, JFG10, JFSO23, JHJ12, JCL07, JP97, KVV23, KU18, KAU18, KR06, KLRU17, KMER22, KR22, KV12b, KWG⁺20, KRDL18, KHKL16, KZ16, KM19, KRS21, KW10a, LCBD07, LMR98, LHN96, LZ99b, LSN17, LYL⁺11, LC05a, LC08, LXdH16, LTzT21, LW22b, LT14, LKvBW10, LD11, Luu15, MKSG10, MMM⁺94, MXYB16, Mat95, MSM14, MSB⁺15, MZW09, MvdM21, MFPG18, NS19, NvdP00, Nov23, Oet99, OW98, OKD16, OKF14, PS11a, Pek12, Pel93, PXYY16, Pip13, PP13, PELY13, PDMY14, PBC05, PC07, QQSvdG01, RT10, RWA95, RT99, RGG15, RD21, SB10, SvdGP16, SM17, SR16]. **Parallel** [SWT00, SRT23, ST00, SC98, SO97, Sun96, SSB08, Ten98, TD99, TTMA22, TAHR15, UA04, UA07, WZ03, WHCX13, WiOH08, WMOZ22, WC17, Wu18, WL20, WZ21b, XB16, XA99, Xie05, XXZ20, YCZ13, Yan19, YSZ14, ZSD⁺10, ZK96, AS93, AM95, BDP96, DS93, EG93, Göt94, JP93, Lan93, MH95, OA93, PS93, RG94, Smi93, TW93, Wat94, AA14]. **Parallel-In-Space-Time** [DGvdZ18]. **Parallel-In-Time** [HDF⁺19, KM19, WL20, GLRS23, GM19a, HW14a, KRS21, WZ21b, LW22b]. **Parallelism** [ABB⁺16, BDO12, CBHB19, Min02, PQOB14, RNR16, YS16]. **Parallelizable** [GLxY19, GHKL22, HLTT97, NT18]. **Parallelization** [BG17a, GLSTV16, PTSA23, Til15, WZSL12]. **Parallelizing** [HvdG96]. **Parameter** [AHDK14, BGL06a, BP97a, BCJ⁺21, BFN17, BU15, BF22a, BM00, CHL20, CMK11, CBS00, CBG⁺19, CJK10, Fu21, FR19, GJ05, GN19, GG18, GJM94, GGKM07, GCB04, GM00a, GK13, HR96, HCRT13, HC21, Isa20, IJT11, JKLZ18, JSZ22, KZ00, KPS19a, KP21, LS16a, LMW17, LP22, LM17, LWG10, MS13, MG23, MDG⁺18, PLT⁺21, Reg96, RW13, RTH17, SPKB13, SB05, TP18, TUV10, WE13, Wei99, Wel17, Yan18, YR12, ZN16, ZTM⁺16, Liu93]. **Parameter-Choice** [CMK11].

Parameter-Dependent [BFN17, CBS00, GN19, KPS19a, TUV10, ZN16].
Parameter-Free [Isa20].
Parameter-Robust [KP21, LMW17, LP22].
Parameter-Separable [MG23].
Parameterization [LMR97].
Parameterized [ARM23, BBBG11, CGI11, CW12, EF15, GLT09, JY21]. **Parameters** [CCPS20, DD12, EHN12, GK12, HSB12, Jac03, JG02, KS15b, LLCW22, LM14b, O'L01, PDC99, VR16, YGS⁺21, DG95].
Parametric [AH17, ABdSF15, AF11, ACW12, BL23a, BGN08, BPS14b, BS16b, BTWG08, DG20, DKS21b, EFHT23, GU17, GLMN15, GY09, GM23, HHM07, HRP20, HMMS22, KS11, LQR12, LS13a, MKW23, RBG23, TZ14, TB02, ZJB20, dSGK⁺15].
Parametrization [SM15]. **Parametrized** [AH20, BKG16, BSU19, CdSG21, DDMQ18, DLY14, Ded10, DHO12, EPR10, GV12, HKO⁺23, IA14, JX13, NRMQ13, SZP19, SBMR18, ZFLB15, Zim14].
PARAOPT [GKS20]. **Parareal** [AKT16, DM13a, GV07a, GJSZ13, GKRNS19, GJS19, GKS20, HWZ19, LLS13, LLS22a, MGB18, MSS10, PHW19, PTSA23, WZ15, Wu18, YWW23]. **Paraxial** [CJ95, QL06]. **ParELAG** [KVV23]. **Pareto** [vdBF08]. **ParILUT** [ACD18]. **Parity** [BLM03]. **Part** [SKPD22, SKP22, ABBM98a, ABBM98b, ABC00, ABL20a, BGK15, BSX22, BS23a, BG05a, BG05b, BTGMS13, Bur13, Bur14, CML⁺18a, CML⁺18b, CHL16a, CHL16b, DSZ13, EO15, EO16a, GM17, GOS12a, GGS08, GS02a, GS02b, KGG10, LRP07, LP08, Lee10a, LN19a, LN19b, PMSG14, Red99, ROO08a, ROO08b, Sta07, SM07, YZ07, YZ08, dSL05]. **Partial** [ACLZ15, AW15, BCS07, BJNN02, BBH18, Bea20, BHW99, BOPGF06, CG18, CB98, CCG14a, CHWY23, CCG14b, CRV13, DL19, EPR10, EF15, FBF15, FMRR13, FWA⁺11, FGH⁺08, GLT18, GPZ17, HHS⁺16, HJ98, HO94, HO96b, HVW95, HV95, HRS19, HHL07, HG00, HV04, JBH20, KKN21, KLR15, LL17, LU17, Lee09, LMW15a, LE17, LCD18, LPR98, LJ17, LZ20, LLSX21, LZ13a, ILN21, LCJ⁺20, LCH99, MR09, MGG19, MGB18, MB00, MPW18, MKW23, MTBT17, Pul08, QFW22, RPK18, Rim18, RWX07, Sch98, ST23, WH13, XS16, XC13, You94, YR12, ZHL21, bZOW07, AGC96, EL93, FGM95, Gre93, HHRV93, Wri93].
Partially [AHT17, BK04, JKLZ18, JBL18, LW22a, SX11, DLG97]. **Particle** [AdWR17, AE18, BKK18, BP13a, BBM⁺08, CP13, CYDK21, CLK18, DEM⁺20, FDS13, GH15b, Gon15, GCR16, GC17a, GS00, GS02a, GS02b, HHLZ21, JLXZ21, KKP14, KCZ15, KRW20, KO17, KR21, Kus00, LHL12, LZG20, LKBJ18, MW03, MCV17, PW12, PKS21, PCL⁺16, PMR16, PP13, PKA22, SRS12, Sch09, Sha21b, Sha03, SC02, Str00b, TKCC13, TK13, WMC11, YDK22, YCN21, McG95]. **Particle-in-Cell** [HHLZ21, KCZ15, MCV17, PKS21, WMC11].
Particle-Mesh [CLK18].
Particle-Partition [GS00, GS02a, GS02b].
Particles [BLVZ23, LL22, Ste11].
Particular [Bet08]. **Partition** [AD18a, AD19, CD15a, DFW21, DFW22, FFSS13, GS00, GS02a, GS02b, KO17, KWG⁺20, LSH17, LCL18, Mir21, Sch09, Sch13, ST23, YSZ14]. **Partition-Based** [KWG⁺20]. **Partitioned** [HP94, Jay98, RM08b, SBHS19, Zbi11, CS97].
Partitioning [AKA19, AKA13b, AA14, BH17, tVÇAU10, ÇAK11, CCS97, CQZ17, DS00, EGLS21, GKM⁺17, GC16a, GMT98, GS05, HL95, HK00, HÖU⁺19, KXH21, KK98, KPÇA12, RP01, SDNL10, SMR16, Ten98, TMA18, TTMA22, UA04, UA07, VSS14, WC00, WZSL12, XA99, YB09].
Partitioning-Based [ÇAK11]. **Partitions** [AGR⁺20a, BBO09, Che05, OWO14, SRI⁺18, Wan22, ZSD⁺10]. **Parts** [AWW19, BZ15, DZ15, HZ11, HDZ16, NN18,

NL16, ODN17]. **Pass** [Bja19, CCF14]. **Pass-Efficient** [Bja19]. **Passage** [AM05, Lan94, HT16]. **Passing** [BS98]. **Past** [NH12]. **Patch** [BRK16, LSY19, LY20]. **Patchy** [CCFP12]. **Path** [CDK21, CZ22, FK00a, HS99a, HW14b, HLZ19, KB08, Kaw15, MZDK22, PR09, RP01, TVV20, Wal99, WC22]. **Path-Conservative** [CZ22]. **Path-Constrained** [KB08, RP01]. **Pathologies** [WTP21]. **Pattern** [BCFJ19, HKT01, JF11, KV13]. **Patterns** [Cho00, LCBD07]. **PBDW** [MT19a]. **PC** [CML⁺18b, Gri19]. **PCA** [CSB⁺18]. **PCBDDC** [Zam16]. **PCG** [NSJ03]. **PDAE** [MB02, NP08]. **PDE** [AB08a, AOR18, ALZ14, BPS13b, BG05a, BG05b, BG20, BF22a, BDS20, BSS21, CDF18a, CPR11, EN16, FHFR19, FR19, GW20, GM21, GGOY02, GLZ22, GV07b, GHKS14, HL10, KM18, KHRvBW13, KHRvBW14, KRT21, LSPRV21, MRL⁺17, NMFP16, NLY23, PWF18, PST15, PMSB12, PBC05, PC07, QGVW17, Rak21, RHL⁺21, RDW10, RDB16, RTH17, SK19, Smi97, SB15, TPQD22, VLM22, YHC16, YZ05, Yav93]. **PDE-Aware** [TPQD22]. **PDE-Based** [BG20, NLY23]. **PDE-Constrained** [BSS21, GW20, GHKS14, KHRvBW14, KRT21, SB15, PST15, AOR18, BPS13b, BG05a, BG05b, BF22a, BDS20, EN16, GV07b, PWF18, PBC05, PC07, QGVW17, RDW10, VLM22, YHC16, GLZ22]. **PDE/Linear** [KM18]. **PDES** [LM00, ABHS22, ABBT⁺20, AAI98, AF22, ABE⁺17, ADS21, BBK21, BBC⁺21a, Bjø95, BV16, BWZ10, BWZ21, Cas02, CLLW20, CL18c, CFH19, CGF21, DO11, DDMQ18, DMMO04, DRW20, EL20, EFHT23, EV13, FMR06, GV19, GU17, GPW22, GM14a, GLSTV16, GM19a, GS00, GSS22, GS21, GM23, GMPZ06, HKO⁺23, HG98, HW15, HW14a, HCRT13, HLP23, HO96a, Hol99, ISS19, JTZ08, JWC21, JGZ06, KK18, KT05, KS11, KRGO19, LSH17, LZ01, LK21, LNS15, Lui00, LW19b, MS17, MNS07, MNvST13, Mir21, MN18, MNZ15, OX17, PHW19, RKvdDA14, SRM⁺15, Sem10, SKPD22, SKP22, TWYZ20, TV98b, VV05, WG12, ZGK20]. **PDF** [BK04, CVK13]. **PDF/Monte** [BK04]. **Peaceman** [CHKM13, CLST03]. **Peak** [San10]. **Peano** [WM11]. **Pedestrian** [Cha07, GM13]. **Peer** [KW10a, KW15]. **Penalization** [EKSS16]. **Penalized** [Lau22]. **Penalty** [BLP14, BB08b, CMS17, EFOS20a, EFOS20b, GvdV17, Hes98, HR99b, KV20b, Kla98b, Kla98c, PEC⁺14, WWY11, WMHK19, YJ13, CGP93, HG96, Hes97, LCW95]. **Penalty-Based** [YJ13]. **Pencils** [FSvdV98b, MW01, Ruh98]. **Peng** [FKQS17, KSW20, QS14]. **Pentadiagonal** [GM21]. **Percentile** [BBC⁺16]. **Perfect** [ABL⁺20b, HMRR19, YWG21]. **Perfectly** [AKLP10, AH09, BHNPR07, CM98c, Dur16, LXYZ23, Luo19]. **Perfectly-Matched-Layer** [LXYZ23]. **Performance** [BS07, BB17, BDJ05, CPV95, Cas02, CMV97, CDPC13, DMPV08, DHHR09, EKM94, EG93, FFMT96, GH15b, GV15, GRS⁺15, GG10, Gup17, HLD12, HJ18a, IHTR12, IFSJ21, JMNS16, KW18, LNA⁺11, Mat18, PPB13, PDE⁺17, PF94, RZTK⁺15, RZTB22, Rot96, SLvdGK14, SRS12, SH14, SC98, TGS08, Van20, WRS17, Yan19]. **Performance-Based** [JMNS16]. **PeriDEM** [BL23b]. **Perimeter** [DDE⁺20]. **Periodic** [AP14, Bad21, Bit99, BR18, BN21, BBT11, Coa12, CD06, DLY16, ELtHR00, GJSZ13, GM00b, HJMS07, HSSZ09, Kog22, KL12, Kon21, KRS21, LZ17a, LR98, MBGV16, MS20, PMSB12, SSH06, TP09, WJMT15, XYGO01, XL20, ZZ18, Zha18b, Zha22a, BR95, Pet93]. **Peristaltic** [BLVZ23, TR93]. **Permeability** [AM22]. **Permutations** [May08]. **Permuted** [SSR⁺22]. **Permuting** [AKA13a, APÇ04]. **Personalized**

[GDB⁺22]. **Perspective** [HSU21, KKZ17]. **Perturbation** [EH18, Kon21, LY98, TT96a, VXCB16, Yav98, Gar96]. **Perturbations** [BBC07, ES18a, SHP07]. **Perturbative** [CL23]. **Perturbed** [ADGP07, BKMRB21, DLTZ06, EMT09, GaP08, HKM20, KH18, Kon21, LZ17a, LLS13, LH19, MM13, Meu01, OW98, ST00, WO98, XYZ12, XYZ22, ZLG98, Zha18b, Zha22a, FCR93]. **PET** [RKW20]. **Petascale** [BBH⁺16]. **Petrov** [BDGK18, Bøe93, BSU19, CC19, HHSY22, KZK17, LZK17, Mor23, PTT20a, ST08, SS10b, Yan14]. **PETSc** [HKA⁺21, KALO07, LMKG16, Zam16, ZCS22]. **Petviashvili** [KR11]. **PFAST** [MSB⁺15]. **PFFT** [Pip13]. **PGD** [ARM23]. **Pharmacodynamics** [AWA⁺18]. **Pharmacokinetics** [AHDK14]. **Phase** [AHR12, AHT17, AGPR19, BCT05, BH11, BWB19, BBKW19, BFSN08, CS94, CLL20, CCC17, CLDS19, CCER12, CL97, CLNZ16, CCRT21, CS18b, CDB13, CG96, DZ08, FTY15, FL08, GHMY18, GHK15, GZYW18, GZW18, GX16b, HHW00, JSCB20, JWH08, KSMM18, KS15b, Ld12, LR12, LL20, LW20a, LQZ22, LXS⁺08, LCK21, MK96, MCV17, PT99, PP12a, PV15, QS14, SY10a, SY14, SXL⁺22, SO09, TYZ19, TK13, WW22, WC03, WMC11, WMC12, Wic17, WGF08, YYS16, YY18, Yan21, ZHY21, dZHY23, LV94]. **Phase-Field** [CCC17, CS18b, FTY15, LW20a, PV15, SY10a, SY14, SXL⁺22, TYZ19, WW22, Wic17, Yan21]. **Phase-Flow** [JWH08]. **Phase-Lag-Order** [PT99]. **Phase-Space** [CCRT21, MCV17, WMC12, WMC11]. **Phased** [JL19]. **Phaseless** [JL19]. **PhaseLift** [HGZ17]. **Phenomena** [CM09, EW00, GLT18, OPRB06, PQR20, RSSM18, Str99, WG00]. **Phenomenon** [AS21, Ban08b, Pir16]. **Phillips** [FM99]. **Photochemical** [VSBH99]. **Photonic** [Fli13, HLM16, TLLL23]. **Physical** [FCF19, GR04, MS04, OPRB06, SG04, dBMZ11]. **Physically** [DTY20]. **Physics** [ASR⁺23, BB17, BS04, CYDK21, GGK⁺04a, HL10, HKD13, HJKK22, LPY⁺21, NK13, PLK19, TP21, WTP21, WFG⁺20, YZK20, YZL20, YTT21, YDK22, ZGK20]. **Physics-Based** [NK13]. **Physics-Informed** [CYDK21, HJKK22, LPY⁺21, PLK19, WTP21, YZK20, YZL20, ZGK20, YDK22]. **PIC** [TKCC13, HHLZ21]. **Picard** [LM17, LR98, PMSB12]. **Picard-Based** [PMSB12]. **PICIN** [KCZ15]. **Piecewise** [AHH06, AC95, BF22a, BC08, BC09b, CCS⁺19, DZSN09, DG17a, HCRT13, Hel11, KD20, LNS96, LCL18, Mar94, Ser06, SL09b, SW10b, Wil09, vdDA12, Atk94, Bia94]. **Piecewise-Global** [BF22a]. **PIFE** [HHLZ21]. **PIFE-PIC** [HHLZ21]. **Pine** [WP98]. **Pinhole** [IJ08]. **PINL** [LC23]. **PINNs** [GYZ23]. **Pinwheel** [GVP06]. **Pipe** [Egg18]. **Pipeline** [BCT05]. **Pipelined** [CRS⁺18, SSM16]. **Pipelining** [KO19]. **Piston** [DL20b]. **Pitaevskii** [DK10, DP17, PQR20]. **Pitching** [GSW17]. **Pitfalls** [AR99, BP97a]. **Pivoted** [KO99]. **Pivoting** [ADGP07, DG17b, DHL20, GDL07, GCD18, MOHvdG17, QOSB98, EL93, Wri93]. **Pivots** [May08]. **Pixels** [HLMR96]. **Placement** [WCG23]. **Plain** [GLL⁺14]. **Planar** [Bar14, Bea20, EL01, EL03, GGM01, JLY08, Kog22, LC05a, LC08, MCT⁺05, OR18, ZD19]. **Planck** [LM05b, LWW20, AB21, CK17, CYDK21, DKO12, DCL⁺21, GM20, HHZ22, HS21, KP10, Kus00, LMM18, LY14, XL20, ZLTA15]. **Plane** [BM11, BR14, CDKL22, HY14, HZ16, HL17, HSSZ09, LDM00, MCB18, MK96]. **Plane-Wave** [CDKL22, HY14]. **Planet** [KY14]. **Planetary** [LP08]. **Planewave** [PATF19]. **Planning** [EKM94, MZDK22]. **Plasma** [HHLZ21, HBJ04, HL10, KM98, PH13, SNB08]. **Plasma-Material** [HHLZ21]. **Plasmas** [WMC11, WFG⁺20].

Plastic [LXK08]. **Plate** [BMP22, GSV18, LS94, MT22]. **Plateau** [AS21]. **Plates** [GSV21]. **Platform** [DTT⁺16, NKTY08]. **Platforms** [AKBM21, GCB15, OAA20]. **PlayStation** [NKTY08]. **PLSS** [BS23b]. **Plug** [BWB19]. **Plumes** [PL06]. **Plus** [HSTH18, TVV11, VD10, CN93, NP10]. **PML** [GL22a, PDTVM08]. **PNKH** [KFR21]. **PNKH-B** [KFR21]. **POD** [BBH18, GXZ21, LV13, SPKB13, TVV11]. **Poincaré** [LDS11, Nat95, Nat97]. **Point** [ACCO00, And99, BSSW13, BHT09, BNP15, BM01b, BCK21, BKMRB21, BORTP19, CWC08, CZ13, CM15, CD01, CWY17, CSW10, CFM98, DH03, DFH⁺19, DTV13, DW05a, DGSW10, Drm97, DS16, EG18, FO19, For06, FDH⁺20, FB19, GV12, GHKS14, HM98, HP19, HDOS23, IM98, JL20, JBL18, KBV09, KS94, KK02a, Kla98b, Kla98c, KM16, KOV15, Krz01, KNV⁺16, LW19a, LG97, LR20a, LZ13a, LO03, LSS03, LW04, MR09, MHR20, Pla98, PBJ⁺96, RG07, RH09, ROO08a, ROO08b, SBK18, ST14b, SY08, SW15, VC00, Van00, Ver96, WLE⁺00, WLZ18, WW03, WJS23, ZG23, ZMK17, ZYZ05, ZH09, ZW16, dSO21, dMHJM00, Hig93]. **Point-Clothoid** [FB19]. **Point-Like** [JL20]. **Points** [AS16, BLS14, BR14, BFR23, Der08, EÜ09, GK12, GI17, Gro02, GNYZ18, KL15, KM05, LCH09, LZ01, LZ02, MRSS14, MR18, PHJ11, PDG20, SL20, SX16b, Swa02, TT06, XZ14, YZ05, YZZ19, ZZ16]. **Points-Based** [MR18]. **Pointwise** [AFOQ19, Cai95]. **Poisson** [AL99a, AIV98, ABI00, AO93, BCR11, BG10, BMF19, BKK⁺21, BK10, Bur97, CCM05, CI19, CKS01, CGC21, Cha18, EL18, EG01, FDS13, GH18, GMSB16, GHST98, HS21, JLYZ23, KRW20, KO13, MCV17, QSM19, WMC12, XL20, ZCQQ21]. **Poisson-type** [AO93]. **PoKiTT** [YS16]. **Polar** [For95, LWCL03, TWW16, WTW17, ASS16, She97]. **Polarized** [ZND18]. **Pole** [DLY14]. **Poles** [BM01b, Men22, RM08a]. **Policy** [AFK15, LGY⁺23]. **Pollutant** [MDA22]. **Pollution** [FL19, PC07]. **Polyalgorithmic** [EGKS94]. **Polycrystals** [BEG⁺08]. **Polygonal** [ABMP22, FDFW07, HRS19, LTW18, Tal15, TC12, ZF14, ZP18, ZP20]. **Polygons** [AORW20, BT03b, BB10, BF06, Wan13]. **Polyharmonic** [AGI10]. **Polyhedral** [ABMP22, SSVW17, XD21]. **Polyhedron** [ECH⁺23]. **Polylog** [HVW95]. **Polymer** [HL19]. **Polymeric** [KP10]. **Polynomial** [AD18a, AD19, AC95, AVW13, Bar00, BG21, BWS20, BDW11, Buv21, CR16, CF23, CAS11, CJGX15, DGS08, DNP⁺04, DEV16, DG20, ELM21, FUNB18, FEL18, FÖ21, GI17, GC19a, Gre03, GNYZ18, HL10, HC18, JNZ17, JP16, Jou94, KK18, KS19, KOSB16, LL03b, LHN96, LXV⁺16, LLWxY20, LMW15b, LCL18, LK04, MNvST13, Mor23, NX13, PSDF12, PH16, Por01, RV22, ST22a, SD10, SV11, SM15, TVV20, VZA⁺23, WK06, WSX17, XK02, YH19, ZCK12, ZH21, FF94]. **Polynomial-Degree-Robust** [CF23, DEV16]. **Polynomial-Filtered** [LLWxY20]. **Polynomials** [BMF12, BT19, BDMFSL04, Car10, DP09, DAE02, Goe94, HKYY16, KT15, Kei09, KP07, LX08, Lin06, LN23, PDA09, UW94, Win06, She94, She95]. **Polytopal** [MV21, MYZ21]. **Polytope** [CL08, GS19]. **Polytopic** [AFRV19, DGK21]. **Population** [AWA⁺18, DKDH20, Kim05, KW10b, PSB⁺06]. **Poro** [ABMP22]. **Poro-elasto-acoustic** [ABMP22]. **Poroelastic** [AGH⁺20, LOL13, LO14, Lem16, SCC17, ABB23]. **Poroelastic-Fluid** [LO14, Lem16]. **Poroelasticity** [AHH⁺23, AM22, AdWGV⁺20, AKMRB22, BBKT15, KP21, LPMR19, PLT⁺21, ZXY21]. **Prohyperelastic** [SOTB21]. **Poromechanics** [BOKCW20, FCF19]. **Porosity** [AHT17, HQH⁺16]. **Porous**

[AE08, AB17, AD18b, AFRV19, AHR12, AGPR19, BC09b, BEM17, BHR23, BKBT18, CFGM11, CLDS19, CDF18b, CDB13, CCH15, FHR14, GYZ11, GJP+14, GY17, HRvdZ22, JMN01, KWD22, LVWW03, LE10, LY98, LRGO17, LCK21, MJR05, RJLW20, Slo02, TTSM08, WLE+00, WZET13, WPT17, YYS16, ZT17]. **Port** [CBG16, LSM22, MNU23, RW97].

Port-Hamiltonian

[CBG16, LSM22, MNU23]. **Portability** [PDE+17]. **Portioned** [PYSG13]. **Posed** [Bur13, Bur14, HvBW23, KO99, Lan10, LM17, NM13, Reg96, RS02, TO15, VW94, FCR93, HR96, HO93]. **Position** [vSRV11]. **Position-Dependent** [vSRV11].

Positioning [CP03b, KKZ17]. **Positive** [ARS21, AJ22b, BGLY05, BGM13, BM08, FEM08, GLMS22, HM10b, HP21, JFG10, LFH19, Lan19, LL98a, Lu95, MV00, MB99, Ng00, Pla15, PS01, ST14a, SO18, VSS14, WS18, Zha96, ZLWZ18, FS96, FF94].

Positive-Definite [BGLY05]. **Positivity** [ABR17, CZ22, CLTX15, DQ22, GW15, LLLX16, LGW19, PH13, QS18, Sha21a, Sur00, UW94, WX21, YCS16, ZHQ20, vdVXX19, HS21]. **Positivity-Preserving** [ABR17, CZ22, CLTX15, DQ22, GW15, LLLX16, QS18, Sur00, YCS16, ZHQ20].

Possibly [Hei13]. **Post** [Gee19, RSA05].

Post-Processing [Gee19]. **Postbuckling** [DP03]. **Posterior**

[BSHL14, VBA18, WBTG18]. **Posteriori** [ABF99, Ain07, AOR18, AOS20, AKMRB22, ATK12, BPS14b, BDW11, CP04, CP03a, CK03, CP07, Cha18, CRS21, CF23, CCH15, CWG10, CHH01, CPB19, CSW14, Ded10, DHL20, ELW20, GSV18, HM20c, HWZ21, JSV10, KS99, LU17, MW22, MPV21, PS10b, WW22, WWY11, WRSZ18, WLLZ18, WBTG18, WCL+21, WW10, WSH14, WvdZSvB18, Zha20, ZHS10, BBT11, DEV16, EV13, EMT09, Hof04, Sch03, TW13b].

Postprocessed [Vil15]. **Postprocessing**

[ABCP08, CKRS07, DK98, MT22].

Potential

[AB21, BS06b, CGK+98, HM98, HA17, HR98b, LZ17b, MRT00, NKLW94, PS19b, RLM+00, WK18, YJXZ22, aKT18, WM93].

Potentialities [MM98]. **Potentials** [Bar14, BWV15, CKK20, CMZ19, CIZ18, CJ05b, DLY16, DL20a, Far01, GJ07, HJMS07, LG09, MT23, OSU10, Sha12, XYGO01, ZV22].

Potts [STY21]. **Powder** [GLL01]. **Power**

[ALRT17, CL21, DSC05, DY23, LW20b, PBV18, TW17, YPHH17, CW93].

Power-Law [TW17]. **Power-Like** [CL21].

Powers [KKK18]. **Practical** [CDKL22, GP16, GLL21, Ruh98, SH01, Sun93].

Practice [CDW14a, CDW14b]. **Prandtl**

[Pup99]. **Pre** [Gee19]. **Pre-** [Gee19].

Preasymptotically [Peh20b].

Precalculated [RY03]. **Precision**

[BHL+20, CHP20, CK23, GLC21, HP19, HPZ19, HP21, JM18, MBT21, Nie06, PQOB14, TBM21, YTD15, YFS21, YWW23].

Precisions [CH18]. **Precondition**

[DGK+16]. **Preconditioned**

[AD20, ABF96, ALJ99, ADGP07, BCGR98, BHN07, BBFJ16, Bia94, BDE08, BMMT14, BD05, CK02, CCSY98, CS14, DH16, DEC05, DHZ+21, ELM21, GM17, GH02, GY99, GY02, GC19b, GD07, GP96, HCHS13, HYC16, JvGVS13, KR99, Kny01, KALO07, KL12, KSV16, Le 09, LE17, LLX15, LK15, LMW15b, LK21, LHL+22, LCY+20, LC23, MS07c, MB17, NKLW94, NAC+15, Ng00, Pav98, PT01, RG13, SMZ18, ST17b, Sem10, Sta07, SM07, SLC01, STY21, SVX15, UA07, VK15, VYX16, WOW00, WWJ12, WS15, WRS17, WXS19, Xue18, Yan94, YBM+18, dSO21, vGEV07, Jin95, Saa93, ST94].

Preconditioner [ARS21, AJS22, AJ22b, AJR23, AVBTG17, BJNN02, BDGK18, BDdSM11, BBM11, BGM13, BMT96, BT98, BT03c, BCFJ19, Ber00a, BGS09, BH22, BLM03, CS99, CDGS05, CBG12, CC02, CWX15, CB22, CG17, CPD17, CST+13,

DMML05, AGJT21, DFG15, DKXS18, Doh03, EOV05, FMW19, FGO20, FCF19, GM15a, GrM10, HC05, HVK18, HM19b, JFG10, JKKM01, KR14, KN21, KLV02, KL05, KL06, Kla98c, LFM22, LS05a, LY13, ILN21, LY16, LY18, MT96, MW13, NV05, Nap23, NSK10, OW98, PEC⁺14, DHM⁺23, PELY13, PV15, QSV06, RHL⁺21, RT01, RG07, RW21, Reu99, RSG17, Saa96, SZ99, ST08, SRM⁺15, SV00, Sto21, TDTF03, Ull10, VV13, Vir07, WGB97, WG20, WL20, XS17, XQ94, ZNZ16, Ain96, LW22b].

Preconditioners [AGH⁺20, AJ22a, AT23, BN05, BC10, BPS⁺14a, BMF19, BT00a, BW11, BLY21, BS05f, BKMRB21, BBKW19, Bre00, BT01, BBH20, BEM17, CDBH16, CDG03, CGL01, Cas97, CS98, Cho00, CKM23, DDF21a, DDMQ18, DPW19, DP19, DW05a, EHS⁺05, EHS⁺07, EN16, EPV94, FV01, GL08, GS98b, GKS98, Gup17, HN06, HPR22, HRR23, HO94, HSTH18, HKD13, HGK97, HZ16, HL17, KO99, Kla98b, KD20, KOV15, KRT21, Krz01, KNV⁺16, Lee09, LS13b, LNC05, LSS03, LW04, MG11, MKSG10, MNS07, MSS10, MHR20, Mu95, NK13, NP10, OV07, Ong97, PS08, PWZ10, PS11a, Paz20, PSC⁺16, PSC18, PS01, PC07, RWKW14, RWWK15, RS03, ST16a, ST14b, Sta97, SO97, Tau96, TAY⁺19, WGS17, dVPS⁺17, dSL05, CT94, CC96, CMV97, DLG97, EG93, HO96a, Huc93, Sch93].

Preconditioning

[AJ21, ABH03, AL99a, And16, And17, AD15, AA02, BSvD99, BHT00, BCT00, Bla03, BS15b, Bre96, BW01, BCMM03, BH14b, CGQ10, CG99, CGG07, CdSG21, CK23, CW18, CMS17, Che98, Che13, CLS16, CM99, CST16, DSW22, Di 97, DKL⁺19, DGK⁺16, DGSW10, DV20, EHL06, Elb06, Elm99, EF15, FFS07, FFSS13, Fu21, GNL14, GLOR16, GH97, GG10, HS06a, HSMT20, HLNS19, HAN19, HSCTP04, Ips01, INS05, JNZ17, JF11, JFG13, JFG15, JZ13, JWC21, Jou94, KV20b, KV20a, Kan03b, KPS19a,

KR12a, KS23, KVMK01, KLT16, KT08, Kra12, KLL⁺16, KT17, Lan10, LMW17, LP22, LKK18, LCK21, MG07, MG09, Mal07, MV94, MPW18, MS93b, MMA98, MR94, MGW00, NV98, Not00b, Ols07, OKLS15, PKNS14, PKD23, Pel18, PS11b, PP08b, PMH⁺16, PLT⁺21, PST15, PMSB12, PS12, PV94]. **Preconditioning**

[PV95, QS08a, RT10, RW11, RSW10, RW22, Saa03, SWW08, SSW21, ST16b, hSSW23, SBX⁺08, SM18, SW03, SCGT07, Sta94, SFM20, SV01, TT07, VK13, VSS14, WZ03, WWM03, WH95, Xia21, YHC16, ZN16, ZB12, dDBV14, vdEH05, Di 95, ES96, FF94, NCV06]. **Predict** [CC20, dBMZ11].

Predict-and-Recompute [CC20].

Predicting [HKLW19]. **Prediction**

[BGMW17, HKC⁺04, JSZ22, LT20, NMFP16, Oli01, ZMD22]. **Predictive** [GSS22, RVA17]. **Predictor** [RC06].

Predictor-Corrector [RC06]. **Predictors**

[HMR09, MKWG15, OS98]. **Prefix** [Mat95].

preprocessing [BZ93]. **Prescribed**

[BCT07]. **Presence**

[ASZ07, AC22, BN98a, SW15].

Preservation

[BBG⁺19, CHAMR06, CW06, Jay98, KW10b, LLJF21, PLVG⁺22, PH13, Sha21a].

Preserve [FMR06]. **Preserving**

[AIP19, ADR14, AT20, AH17, ABR17, AWW19, ALT93, BH14a, BG10, BSMM16, BM08, BV19, BLR14, CTB15, CR23, CGK13, CCSY98, CCRT21, CBG16, CRS20, CS20, CZ22, CS23, Chr09, CLTX15, CGP22, CS10c, CDN16, DO11, DEN21, DLV17, DPS18, DG20, DQ22, DWQY19, DCL⁺21, EKLS⁺18, EL20, EG22, EG23, FM11, FCM12, GW15, GPSY17, GNPT18, GY17, GMYL23, HHZ22, HMLH18, HS21, HLM03, JX13, Jin99, JS10, JW13, JLP18, Ket08, KC16, KEF11, KLLM22, LTC13, LFH19, LZG20, LM08, LR99, LI01, LW16, LLLX16, LYZ20, ILTZ21, LX16a, LGW19, LCJ⁺20, Liu20, LS23, LXL11, MR17, MW01,

MHW22, MS07e, MBS22, MR01, NBA⁺14, PL21, PSC18, QS18, SY18, SZW20, Sur00, SF99, TWZ21, UDH23, WY19, WQX20, Wu21, WX21, XQX15, YJ13, YJXZ22, YCY19, YCS16, ZKN20, ZKN21, ZHQ20]. **Preserving** [ZWWZ21, ZZZ21, ZLZ22, vdVXX19, BM17b, LS12a, Tor05]. **Pressure** [BCM15a, BKMRB21, BJP⁺22, EZ11, GP99, KSMM18, KL10, LRV22, LY98, Mu20, MYZ21, OV07, RW22, RJLW20, SMZ18, SCS04]. **Pressure-Robust** [MYZ21, RW22]. **Pressure-Temperature** [RJLW20, SMZ18]. **Pressureless** [BCM15a]. **Prices** [WWH17]. **Pricing** [FO08, GMP19, HW14b, HFL11, IT09a, IT14, IT09b, LCD18, LZ16, LFBO08, OGO13, OGO16, RW07, RO12, ZK14c]. **Priest** [Nie06]. **Primal** [ACCO00, BDGK18, BKKM22, CGM99, DFG15, DFDM19, HS06d, HSW08, IMS96, KL10, KR06, KM16, LN17, LD03, Pla98, SSW21, WvdZSvB18, Zam16, Zha20, dVPS⁺17, Kor93]. **Primal-Dual** [ACCO00, CGM99, DFG15, HS06d, HSW08, IMS96, KM16, LD03, SSW21, Zha20]. **Primary** [BLGL11]. **Prime** [JF16]. **Primitive** [ADM10, HZXC16, NH14]. **PRIMME_SVDS** [WRS17]. **Principal** [GH14, HMST11, LYLC17, Nit99, YPHH17, ZZ04]. **Principle** [BI09, FH06, FK19, Gar00, JX13, LSU11, LI01, LLLX16, LYZ20, LLJF21, LY14, SY18, Wu21, XQX15, YCY19, ZLS12]. **Principles** [AW11, OKF14]. **Priorconditioned** [CPP⁺17]. **Priori** [CJ09, Cho00, DPF15, DG16, DKW19, MRL⁺17]. **Priors** [CPP⁺17, UDH23, WBS⁺17]. **Prismatic** [CDG17]. **Probabilistic** [CHM21, DYZC22, GH15a, GR04, HM19a, HM20a, LD04, PTSA23, YLG22]. **Probabilities** [GSS12, IM98, Wal14]. **Probability** [BP06, BTGH12, BJW18b, GDLS14, Gub96, KKZ17, LX12, LX14, MFSY19, PSSW15, SG04, WK06, WI12b]. **Probe** [EP06, LS09]. **Probing** [LS20, SLO13, SSR⁺22, vdBF08]. **Problem** [AHT12, AOR18, AFOQ19, Ami94, AdWGV⁺20, ACW12, ABMP22, ABB23, AHDK14, AHR12, BMV18, Bar12b, BBGS04, BC06, BK08, BACF08, BO06, Ber98a, BH11, BK00a, BLMS21, BLMS22, BBD16, BL99, BL03b, BKKM22, BIYS00, BBR08, BCM15b, CR16, CGAD95, CK03, CGP12, CC08, CDY07b, CHM02, DS17, DEP11, DSZ13, DL20b, EVLW17, ES17, FB21, FGS14, GL21, GH13, GKV00, GS12, GP99, GB06b, GK11b, GO09, HRT10, HLD12, HHP21, HT13b, HN20, HJ18c, HvdG96, HvdV03, JMM10, JMR17, KK02b, KL06, KL10, KL13a, KLN20, KLZ22, Kup98, KL00b, LO19, LM05a, LL98a, Le 09, LR12, LM20, LRV22, LLX15, LLW19, LY20, LZ23, LS05b, LSM22, LTzT21, LPP09, MR04, MMT15, MRT00, MRB23, MRW15, MDA22, MV21, MV06, NH12, NWW97, OR02, OV07]. **Problem** [OQRY18, PRS12, PVV11, PMH⁺16, PBJ⁺96, QZZ19, QNNZ19, QRV21, QOQOP99, Rad16, RH09, RSA05, SS98, SHP07, SBHS19, SS10a, ST00, SKN19, SSF16, TY08, TET10, TX17, TCDS21, TVV11, Tim19, TD99, VP10, VV13, WG20, WWJ12, XYGO01, XYZ12, XK08, YVB98, YSZ14, ZYSL15, ZWZ19, ZZ22, Zha22b, ZSPL21, dVL10, vBdB05, vWBV09, CSS93a, CW93, DS93, MMPR93, MCJN94, SRCG93, Tre97, YL93, Zha94]. **Problems** [ADR14, ABLS05, AN17, AL02, AC05, AB08a, ABF99, AEFM17, AA00, AFF⁺15, APSG14, APSG16, AS18, AVBTG17, AW20, AH20, AFS19, AV21, ABBT⁺20, ATV07, AGH13, AF15, AHDK14, AH04, AH06, AHH12, AD15, ADF⁺19, AC22, AP99, ARM23, AMV22, BN23, BS07, BKGV16, BH14a, BCS07, BLV18, BDS98, Ban08a, BL03a, BYZ19, BSHL14, BH20, BBC⁺01, BLV17, BGL⁺21, Bar14, BBGS13, BOF16, BGK15, BGM13, BEEM18, BCC⁺15, BB15a, BBKS20, BSvD99, BT03c, BDKR21, BP13a, BHNPR07, BLS14, BK06, BM01b,

BV20, BBS22, BYL13, BF95, BFK03, BF06, BCK21, BDF08, BB05, BKFG19, BF14, BH22, BKMRB21, BH08, BvW09, BLR14, BBM⁺15, BQR18, BS99b, BT13, Bou01, BtVÇG⁺10, BCL99, BM95b, BDK12, BL08b, BMM⁺10, BMMT14, BWZ10, BH07, BDR18, BP06, BHR96, BKS98]. **Problems** [BCdF⁺20, BTGH12, BTGMS13, BSS21, Bur13, Bur14, BEH⁺19, BCDE21, BG13, BG04, BGMW17, BJW18b, BJW18a, Cab94, CW07, CL11, CLL20, CPS20, CSS09, CGKM16, CDG17, CPV95, CEJ⁺10, CPB13, CGR14, CHP20, Cas05, CCER12, CT03, CW17, CGG⁺14, CKY98, CD02, CJY16, CYDK21, CJ05a, CKV99, CWY17, CG10, CK98, CN10, CCO11, CEO11, CS17, CBK18, CHH10, CDG⁺09, CS12, CGX21, CM99, CGM00b, CDGT01, CDN16, CP17, CDFQ11, DMS01, DN13, DFG15, DD00, Ded10, DTR21, Der08, DH95, DF20, DLTZ06, DYZC22, DQQ13, DPW19, DEV16, DMRR19, DKO12, DP19, DFL20, DMM20, DKZ09, DLZ10, DJLZ96, DK03, EKM94, ES19, EOVS05, EN08, EGKS94, EPSU09, EK14, EK10, EHW00, EMT09, EHS19, EPV94, FGMP13, FGMP14a, FGMP14b, Fai03, FMOS17, rFS12, FH06, FLU⁺20, FTY15, FL97, FMM98, FDS13]. **Problems** [FWA⁺11, FS02, FK00b, FS11, For06, FSV22, FL19, GJ17, GJSZ13, GG13, GN16, GX16a, GKRNS19, GLxY19, Gar05, GU17, GBS⁺22, GH02, GK03, GK18, GvdV17, Gee19, GMvdV19, GG19a, GHH07, GV12, Gia18, GGK⁺04a, GDC⁺23, GY02, GPHHAPR18, GHN01, GH99, GT94, GI99, GHR12, GHR13, GMS18, GM00a, GLOR16, GV09, Gu15, GN23, GSM20, GSV20b, GVMM14, GPT22, HA01, HHM17, HR96, HvBW23, HN22, HSB12, HSWW08, HMN⁺13, HS06b, HW21, HN06, HJ18b, HHK19, HKM20, HM14, HAS20, HP21, HTW⁺12, HL10, HLT16, HLNS19, Hof05, HXX18, HR99b, HS01a, HKD13, HY10, HZ22, HCL23, HJZ23, HR99c, HHL15, HLM16, HDOS23, HMW07, HSW08, HMCK04, HV07, HLM03, IM97, JKM14, JL19, JZX⁺21, JCdS21, JY21, JR98, Kal20, KKV13, KLV⁺16, KV20a, KVV23, KB08]. **Problems** [KR14, KCL16, KLS⁺15, KS94, KPT16, KMA⁺12, KZ00, KY19b, KMW99, KO99, KGR16, Kla98b, Kla98c, Kna98, KLT16, KV12b, KL12, KC16, KH18, KG14, Kra08, KT08, KLL⁺16, Kra09, KSU14, Krz01, KBP17, KRS21, KEC23, Kus97, KGT07, LP11, LP13, LQ19, LV07, Lan19, Lan10, LZ21a, Lan94, LQR12, Lay96, LP96, LMR98, LS13a, LV10, LG97, Lee13b, LLW16, LR20a, LW22a, LM17, LN05, LI01, LWCL03, LLZ08, LM14a, LQX14, LXV⁺16, LZ17b, LSY19, LZ21b, LLSX21, LLCW22, LWG10, LMT18, LO03, LSV13, LW03, LSS03, LLZ15, LSZ17, LY22, LGC⁺23, LT14, LW04, LWK⁺16, LWSP22, LXYZ23, LGR20, LvL21, LK98, LCY⁺20, MPS18, MS07b, MM13, MABO07, MS07d, MG11, MRFV18, Mar01, MV94, MWBG12, MSS10, MS06a, MZDK22, MG12, MMS05, MR18, MMN00, MMV98, Mu99, Mu20]. **Problems** [MHS98, NHSS13, NN03, NRMQ13, NXY10, NvdP00, Nor07, NLY23, Obe13, OB08, Ols07, OW98, OSS22, PL03, PFS21, PE00, PKR⁺13, Par17, PKD13, Pat97, PW12, Pav98, PS13, Peh20a, PP08a, PP05, PSA99, PMSG14, PTT20b, Pet05, Pic03, Pol16, PS10b, PST15, PMSB12, PRSS11, PV94, PV95, PBC05, QX08, QZZ14, RP01, RKLM18, RHL⁺21, RW21, Reg96, RW07, RW13, RPM23, RNV17, RS03, RL13, RS02, RKvdDA14, RSG17, RSSZ08, RCC18, SP03, SG11, Sch02, SSW18, Sch19, SBS98, ST17b, Sco17, ST19, SIS96, SY10b, SW16, Slo02, SK05, SSC⁺15, SCW⁺17, Sta97, Sta00, SBMR18, SV21, TT96a, TO15, TPQD22, TUV10, TW17, Tou22, TPB17, Tsy99, UEE12, UG19, VMM13, VC00, VSBH99, VW94, VPP05, Wal99, WL04, WR13, WZ18, WX99]. **Problems** [Wan04, WS05, Wan12, WH15, WBS⁺17, WBTG18, WWYX20, WZ22,

War13, WO98, Wat04, WCHZ14, WW10, WW03, WB08b, WK03, WC17, WXS19, XEG06, XLS18, XB16, XYZ22, XXZ20, Xue18, YG15, YZ11, YBHY15, YYS16, YHC16, YWG21, Yav98, YSK19, Yu01, YYY11, Zbi11, ZGA10, ZS99, ZLG98, Zha20, Zha22a, ZJB20, dWPR20, vD03, vLA21, vdDA12, vdZvBdB10a, vdZvBdB10b, BR95, Cai93, Cai94, CV93, Dax93, DLG97, DG95, FCR93, GLM22, Gar96, HO93, Li94, MMM⁺95, MMY96, MS93b, PCDB96, Rán93, SBC93, Smi93, Wri93]. **Procedure** [BGR10, CD15a, Den97b, rFS12, KLY07, MT99, YYY11, ZW16, Gar96]. **Procedures** [AAD11, Dur16, HS99a, SP16]. **Process** [AO07, ACW12, BF01, BG22, BTGH12, IT09a, JSZ22, PSB⁺06, SZ00, SB13, ZMD22, KOB20]. **Processed** [BCCSS21]. **Processes** [AM05, BLM22, BRBT12, CK17, CBG⁺19, DNP⁺04, DN97, EFHL09, LFBO08, PS13, RPK18, ZK14c, ZK15, Zim13]. **Processing** [BBFJ16, BCFJ19, BCR99, BCM05, Gee19, GMS02, HK00, Hen05a, KMSM14, LRT11, Nov15, RSA05, SP03, WHCX13, WBFA09, WDT22, Zim20]. **Processor** [CFM98, OA93]. **Processors** [KHW⁺14, Heg95]. **Procrustes** [BL99, BL03b]. **Product** [ARM⁺19, Beu05, CWC08, CS96, DO15, DP19, DCP11, FT03, JML22, KSV16, MBM⁺16, ORO05, RG98, Ull10, WFG⁺20, Zha97, ZCK12, AA14]. **Product-Convolution** [ARM⁺19]. **Product-Type** [Zha97]. **Production** [Pup03]. **Products** [BL03b, BBR08, Che16, DOKM22, EMN17, FMYT16, KKS08, KP17, Won16, LMSSS97]. **Profile** [AKA19, DHHR09, Hag02]. **Programming** [AFK15, BV03, CCFP12, DARG13, GY05, GB98, GHN01, KKK16, KB08, KO05, KK13, KOSB16, NKTY08, Pla98, ST03, CV93, Kor93, Sar97]. **Programs** [CFM98, FHFR13, FL08, LWYxY18]. **Progressive** [BEEM18]. **Projected** [BS23b, EHN12, GRMS09, Hok17, HM20b, KFR21, KSD10, MT09, RVA17, SBND11]. **Projection** [ABC00, AABM13, BJ01, BBBG11, BB15b, BM95a, BCP15, BD05, CFGM11, CEHN08, CN99, CC19, CRT11, EAS11, EN08, FB19, GL22b, GH13, GSW13, HN19, HC18, HB97, JCdS21, KMR01, KHE07, KTSB19, LE17, MNvST13, PKA22, SSW21, TZ14, TVV11, WC23, Xue18, YR12, ZBFN17, ZFHS15, vLA21, ABS96, ABCM97, CW97, LL98b, Sun93]. **Projection-Based** [EN08, KHE07, ZBFN17]. **Projections** [BCC⁺15, GG05, dMGF17, JK08, KR21, OPR22]. **Projective** [GK03, LS12a]. **Projector** [EL18, EH18, KR12a]. **Projector-Splitting** [EL18]. **Projector/Backprojector** [EH18]. **Projectors** [HNS08]. **Prolate** [KLZ⁺06]. **Prolongation** [JFSO23, MFJ19]. **Prolonged** [SNB08]. **Promoting** [CPS20, HHP22]. **Prony** [OS95]. **Propagating** [CYVK15, DBC13]. **Propagation** [AM19, Aru12, BLMR02, BCS11, CHW17b, CHX15, CG96, DLM16, DF20, DR13, EKLS⁺18, Fan22, GM17, GMvdV18, GLQ16, GMM15, GW04b, GM04, HLY13, JK21, KMA⁺12, KPL13, LS95, LOL13, LO14, Lem16, Min02, ODN17, PKD13, PTT20b, PDE⁺17, SMR16, SKJ⁺13, TLT12, Tra95, Wic17, ZWP21, ZLJ96, Zim00]. **propelled** [GHK14]. **Proper** [AK04, CBS00, CP17, GLMN15, HLR18, IW14, MDA22, PDG20, Rav02, RSSM18, TLN14, ALT93]. **Properties** [AMN15, CDKL22, DMMO05, GG94, GG95, LL00, LGC⁺23, LB06, MS04, MR02, TG04, TLH21, WL11, WB99, dBMZ11]. **Property** [BBG⁺19, VS03, ZN05, ZH21]. **Proposals** [VS23]. **Protein** [XJS13]. **Provably** [RL17, Ten98, WS18]. **Providing** [Yam02]. **Proximal** [DTV13, LCE22, MZWG16, Par17, UWY⁺15, WWYX20, WY13]. **PSAI** [JZ13]. **Pseudo**

- [ASS16, BS96a, HS06b, KRR23].
Pseudo-Differential [BS96a].
Pseudo-polar [ASS16]. **Pseudo-Spectral** [KRR23]. **Pseudo-Timestepping** [HS06b].
Pseudoinverses [Wan97]. **Pseudopod** [NMWI11]. **Pseudopod-Based** [NMWI11].
Pseudopolar [ACD⁺08a].
Pseudoreversible [TWJ⁺23].
Pseudospectra [ET01, Lui97, LW97, WT01, TT96b].
Pseudospectral [BS05c, BLS09, BDZ13, BM01b, BMV05, BGSV15, BWZ21, CM13, DF99, Elb06, For95, For06, HJMS07, Hun95, Hun96, KLZ⁺06, LK98, MG12, MHS98, Ros15, TT96a, TSX17, TC99, WS95, WSZ14, HP14, MT99].
Pseudostress [CW07, KZP20, LM20, LRV22].
Pseudostress-Velocity [KZP20].
Pseudotransient [CKK03, HS16].
Ptychographic [CGM⁺21]. **PU** [Mir21].
Pulsed [CBK18]. **Pumping** [JP01, LJL09].
Pumps [BLVZ23]. **Pure** [BB15a, Kup01, MMM⁺95]. **Purkinje** [WiOH08]. **Purpose** [IFSJ21]. **Pursuit** [CDS98, WLL⁺15, ZSPL21, vdBF08, LL98b, Sun93]. **Push** [BJW18a]. **Push-Forward** [BJW18a]. **PVM** [DFN12]. **PWDG** [KMW15]. **PyClaw** [KMA⁺12]. **pyFFS** [BKH⁺22]. **pyMOR** [MRS16]. **Pyramid** [Ain14, CW15, CW16b]. **Pyramids** [CW16a]. **Pythagorean** [RV22]. **Python** [BKH⁺22]. **PyURDME** [DTT⁺16].
- QLP** [CPS11, Ste99]. **QM** [WCL⁺21].
QM/MM [WCL⁺21]. **QMC** [DKGS15].
QMR [BS96b, FN94, KMR01, RG98].
QMR-Based [KMR01]. **QR** [DHHR09, FSvdV98b, FKN⁺20, GKK10, GE96, HWD02, Oli01, QOSB98]. **Quad** [VO19, ZWZ19]. **Quadratic** [BCS07, Ber00b, Cao07, CDY07b, Ded10, Don06, FL08, GHN01, HN06, HD15, HvdV03, HLM03, LWW20, LC05b, LWK⁺16, MPS18, Mee01, NN05, PWGW12, PMSB12, PN19, Tap22, CV93]. **Quadratically** [ES18b]. **Quadratization** [YY18].
Quadrature [AH18, AB02, AHH⁺23, Alp99, Ban10, BHK14, BSS17, Bog14, BH23, DGB15a, DY23, EJJ08, FMRR13, GCS19, GS18, GMvdV19, GST19, GV13, GC19a, GPS12, GPTV15, HT13a, HS05b, HLL00, HW09, JLZ17, JM18, KS18, KKN18, KKN21, KS17, MC05, PS19b, Say15, SLFL06, Str95, SSVW17, Swa02, WSX17, aKT18, BGP94]. **Quadrature-Based** [BH23, DGB15a].
Quadrature-Sparsification [GS18].
Quadratures [BWV15, BGR10, Car07, GNZC17, Wen08, Won16, YR98].
Quadrilateral [HH16, LE10, SY08, Wan01, WSK99, YYY11, ZMS10, ZP18].
Quadrilaterals [D'A00, HRV11]. **Qualified** [LCL18]. **Qualitative** [ACHN21]. **Qualities** [Hua05]. **Quality** [Ber98b, CPT05, CC06, CC11, EÜ09, HR98a, Joe95, KK98, Knu01, LLSX21, LC05a, LC08, LJ95, Wal13].
Quality-Bayesian [LLSX21]. **Qualocation** [CP03a]. **Quantics** [OT11]. **Quantification** [AS21, Bar12a, BF16, BDK⁺20, BZ12, BJW18b, FWA⁺11, FJHM19, GW04a, GS14, HSK19, KKP14, KH14, Kou09, LNP⁺07, LZ04, PDE⁺17, Rah13, SSDN12, SRW⁺18, TZ14, WB08b]. **Quantifying** [AM04].
Quantile [Wat98, YMM14]. **Quantitative** [ATWK19b, DTM05, HFL⁺16]. **Quantities** [ATWK19b, AF22, MNvST13]. **Quantity** [GV07b, LQX14]. **Quantization** [KLLY20, KY05]. **Quantized** [DKO12, Rak21]. **Quantum** [ACdS⁺11, BOR97, BKMM10, CL18a, CWY23, CBDW15, DZSN09, DZ12, DF21, FGL09, GRPG01, GKM⁺17, HJMS07, Jah04, JP14, LR10, Lee13a, LW20b, ML11, PG22, RN14, SZ06, SO10, WC22, YHS07, vWBV09]. **Quantum-based** [GKM⁺17]. **Quartic** [UW94]. **Quasi** [ABLS05, BN00, BN21, BBT11, CPP⁺17,

CK07, CGF21, DJLZ96, EZ11, EL19, GL22c, HW14b, HLL00, HTW⁺¹², HH11, HJL⁺¹⁹, IT09a, IK10, IT14, JSPC97, JKY21, KH00, KSD10, LZ99b, Lin16, LMRS21, LD03, Man05, MM14, MS06a, MO21, MC94, MGH21, Pol16, RNV17, RNV19, SL10, SM17, SStM23, Sha21a, SCW23, SX16b, SV01, Ton94, WW22, Wan12, WWH17, YZ05, ZWH21, CGS⁺⁹⁴, Fre93, BW93].

Quasi- [RNV19]. **Quasi-algebraic** [HTW⁺¹²]. **Quasi-Conservative** [EL19, Sha21a]. **Quasi-definite** [MO21]. **Quasi-Geostrophic** [BN21]. **Quasi-Interpolation** [JKY21, SCW23]. **Quasi-Laguerre** [DJLZ96, LZ99b]. **Quasi-linear** [Pol16, YZ05]. **Quasi-MAP** [CPP⁺¹⁷]. **Quasi-Minimal** [LD03, SV01, Ton94, CGS⁺⁹⁴, Fre93]. **Quasi-Monte** [ABLS05, GL22c, HW14b, HLL00, IT09a, IK10, LMRS21, Wan12, ZWH21]. **Quasi-Newton** [HJL⁺¹⁹, KSD10, SL10, SM17]. **Quasi-Newtonian** [MM14]. **Quasi-Optimal** [MGH21, SStM23, SX16b, Lin16]. **Quasi-Orthogonal** [KH00]. **Quasi-Periodic** [BBT11]. **Quasi-Random** [MC94]. **Quasi-Reversibility** [CK07]. **Quasi-Spherical** [BN00]. **Quasi-Static** [HH11, WW22]. **Quasi-Steady-State-Approximation** [JSPC97]. **Quasi-Symplectic** [Man05]. **quasi-Toeplitz** [BW93]. **Quasilinear** [BH22, Tou22, Bøe93]. **quasistatic** [OH21]. **Quaternion** [LLJ22]. **queueing** [CC96]. **Quotient** [BLV18, HvdV03, Ste02]. **Quotients** [IW14]. **QZ** [AKK14, FSvdV98b].

R [MIS03]. **Rachford** [CLST03, FZB20]. **Radar** [CHKsL20, GH07]. **Radial** [Ama98, BN98b, BLB00, CBN02, DFS17, DFQ14, DFW21, DFW22, FM12, FP07, FLF11, GD07, JK10, JK15, JP16, KL13b, LLHF13, LSH17, LW19a, LSW17, MMS23, Mir21, Pir16, Pla15, TLH21, WDG⁺¹⁸, WRS08]. **Radially** [ADKM03, MT09]. **Radiation** [BW01, HG02, HHT03, Kan03a, KR14, PP05, SYY09, YCY19]. **Radiative** [BK98, BK99, GP18, HHE10, JLY08, PKR⁺¹³, RBH06, SKN19, SH20, TWZ21, YCS16, ZHQ20]. **Radiography** [HFL⁺¹⁶]. **Radiotherapy** [CDM⁺¹³]. **Radius** [BLMS21, Gug16, HOY03, JP11, Mit23, RMD08, Ros15]. **radix** [Goe97]. **Radon** [ACD^{+08b}, Man99, Rim18]. **Random** [AP19, ABE⁺¹⁷, AdSK19, BJ01, BF16, BMMR20, BvW09, BCV13, CJGX15, CLLW20, CGF21, DU19, DHP17, DW15a, EAA21, EPSU09, EIJH20, GWBW22, Gri19, GS14, HM20a, Hri03, Hri05, HCHY23, HTH⁺¹⁶, IK10, JKL22, JK12, JLP18, JLXZ21, KKV13, Kaw15, KKN21, KRGO19, LSW02, Lan94, LXZ20, LZ20, LLZ15, LK04, LW19b, MFSY19, MNvST13, MC94, MZ19, MNZ15, NS21, OVV17, PS12, RDB16, RNR16, SM94, ST22a, SG04, SM15, TZ14, TG04, TCCK18, UEE12, Ver96, WR13, WZ18, WI12b, XH05, XT06, YCZ13, YHFG22, YLG22, YR12, ZRK15, ZS04, LL94, YGCP96]. **Random-Batch** [LXZ20]. **Random-Sampling** [BCV13]. **Randomization** [DLY17, Gu15, HAS20, MOHvdG17]. **Randomize** [BSHL14, WBS⁺¹⁷]. **Randomize-Then-Optimize** [BSHL14, WBS⁺¹⁷]. **Randomized** [ABC⁺²³, AdSK19, BW18, BW21, BG22, Bja19, BTK19, BS18b, CLB21, CRT11, CWD13, DSS20, DG17b, GLR⁺¹⁶, GCG⁺¹⁹, GNZC17, HN19, HNR17, KXH21, LL03b, LXdh16, LXG⁺²¹, LLJ22, LR20b, Mar16, MV16, PDG20, RDB16, Sai20, SStM23, SX17, SZP19, WBTG18, WSX17, XXdh⁺¹⁷]. **Randomly** [EMT09, LZ04]. **Range** [BFJ⁺¹⁵, BKK18, BKK⁺²¹, LT21]. **Range-Separated** [BKK18, BKK⁺²¹]. **Rank** [AAB^{+15b}, ABLM17, ABLM19,

AP01, BK16, BKS16a, Bja19, BKS16b, Bör07, BDS20, BSS21, CCY23, CA16, CD19, CL23, CGMR05, CL21, DM13b, DKXS18, DS17, DBA19, DLP⁺²¹, EL18, Ein19, EL19, EHY21, ES19, FWA⁺¹¹, FM16, GTK⁺¹⁷, GU17, GNL14, GN19, GOS12a, dMGF17, GCD18, GE96, HM19b, HGZ17, KSU14, KMR19, KPU21, KEC23, LE17, LS13b, LJ17, LLWxY20, LT21, LLJ22, Mar16, MV16, MMR19, MKB22, NRO22, OX22, PW15, Pen00, PRM97, PCD17, QOQOP99, RO15a, RO18, RZTB22, RAT18, Sco17, SZ00, SB15, SV21, SSN19, TYUC19, VD10, Wan97, WLL⁺¹⁵, ZZL22, vNLB04, KSV16, SSC⁺¹⁵]. **Rank-** [SSN19]. **Rank-1** [CL21]. **Rank-Deficient** [PRM97, QOQOP99, Sco17, Wan97]. **Rank-One** [AP01, WLL⁺¹⁵]. **Rank-Reduction** [LE17]. **Rank-Revealing** [GE96, MV16]. **Rank-Structured** [Mar16, OX22]. **Ranking** [CPP⁺¹⁷, CKLP11, DMM⁺⁰⁸]. **Rankings** [FLM⁺⁰⁵]. **Ranks** [MC09]. **Rao** [DMM20]. **Rapid** [AD96, BCY21, FDFW07, KLZ⁺⁰⁶, SLC01]. **Rare** [GL15, LLZ15, WLPU20]. **Rarefied** [HC20a, Ste11, TPW09]. **Ratchet** [BBM⁺⁰⁸]. **Rate** [AdVC00, Gee19, GLC21, KBD21, Mit23, NN12]. **Rate-Based** [AdVC00]. **Rates** [BF13, Kol99, Red99, Ros05a]. **Ratio** [Bar12b, FNL⁺¹⁹, Le 01]. **Rational** [AH18, AN17, AT15, Bad21, BG17a, BG17b, BM01b, BHK14, CMM95, DP07, DGB15b, DKZ09, DLZ10, FNTB18, FS08, GSS12, GG21, GVMM14, GPT22, HO18, KXS18, KXH21, KBD21, NST18, PPS22, Ruh98, TWYZ20, TT06, VMM13, WDT22, XS16, XS17, ZFwCW15, NT20]. **Rational-Order** [HO18]. **Ratios** [DV98, GST12]. **Raviart** [Ain07, HM20c]. **Ray** [GHS⁺⁰⁹, HFL⁺¹⁶, JBL18, KLS08, LB06, HHP22]. **Rayleigh** [BLV18, HvdV03, Kal20, Ste02]. **Rays** [SCM10]. **RB** [HKO⁺²³]. **RB-ML-ROM** [HKO⁺²³]. **RBF** [LW19a, LSW17, Mir21, AF15, KCL16, KW11, SWN20]. **RBF-FD** [SWN20]. **RCHOL** [CLB21]. **RD** [BFJ⁺¹⁵]. **REA** [Vog16]. **Reaction** [AN17, ABR17, AE22, BOR97, BHK12, CLST03, CDG⁺⁰⁹, CE16, DMRR19, DMD⁺¹², EO15, EO16a, EFHL09, FDE⁺⁰⁶, GHH07, GK13, GSM20, HG98, HKF⁺¹³, HS16, JJK23, KBK⁺⁰⁸, KWW13, LSW17, LWK22, MRI21, MTV16, MPS09, PDH09, PS08, PS13, QDKW18, RC06, SDNL10, SBP04, SWN20, SM94, TTSM08, TK13, TM14, VS23, VS04, WL01, WRSZ18, Zbi11, ZRTK12]. **Reaction-Diffusion** [BHK12, CLST03, EFHL09, FDE⁺⁰⁶, KBK⁺⁰⁸, LSW17, MRI21, MPS09, PS08, PS13, RC06, SM94, TTSM08, TK13, WRSZ18]. **Reaction-Induced** [KWW13]. **Reaction-splitting** [MTV16]. **Reactive** [APvDG12, Dor98, KWW13, MMS05]. **Reactor** [BK04, Zas95]. **Real** [AT15, CGX21, DH01, DCB22, GG09, Gug16, HLTT97, In99, LZ99a, LM14c, Rav05, Ros15, SYZO15, SWU16, WLK06, XD21, Zhe07, ZHDZ17, BZ96, LL94, NT20, Pel93, Tre97]. **Real-Time** [DCB22, LM14c, Rav05, SYZO15]. **Real-Valued** [SWU16, XD21]. **Realignment** [IT14]. **Realistic** [BGSV15, BBR08]. **Reality** [HvdG96]. **Realization** [BTY08, BSU19, LT09]. **Realizations** [PSDF12, SD10]. **Rearrangement** [HJ18a, Wal13]. **Rebalanced** [BB17]. **Recentering** [ABL20a]. **Recipe** [tVÇAU10]. **Recirculating** [OW00, BY93]. **Recombining** [BM95b]. **Recompression** [KP17]. **Recompute** [CC20]. **Reconciling** [DDE⁺²⁰]. **Reconstructing** [WQX20]. **Reconstruction** [AGI10, AB21, ADH99, AS06, ABB⁺⁰⁴, BV03, Bar12a, BBF⁺²², BNFS13, CCSS03, Che05, CJN13, CGMV05, DGP10, DHHR19, DQ22, DFW22, DB07, DF03, EFHT23,

GN14, GNL21, GJ05, GB12, GHS⁺09, HHMS15, HLMR96, HCHY23, Jac03, KTB14, Kon21, KHKL16, LFB13, LFJS14, LSY19, LY20, Mar94, NWWY10, QNNZ19, SH14, TBKF14, WYGZ10, WKM⁺07, DG95]. **Reconstructions** [AS05, MS03].

Recovering

[AIL05, Ant22, CIZ18, CHZ21, Peh20b].

Recovery [AGSS19, AHH06, ADLW19, BS08, BCCX21, CHL20, DCSO10, DG20, GP16, dMGF17, HL18, LCBD07, MZWG16, NZZ06, NWWY11, NN05, NNT13, PABG11, RWDL19, SSF16, Tao22, ZN05].

Recovery-Based [SSF16]. **Rectangular**

[AIV98, APÇ04, BACF08, BF06, CKV99, DO15, DLP⁺21, HK00, Sar98, TX17, UA04, VN03]. **Rectified** [AS22]. **Rectilinear**

[Zen16]. **Recurrences** [BF01, FN94, RG98]. **Recurrent** [Wan97, YGS⁺21]. **Recursions**

[GD03, LCJ96]. **Recursive**

[AKA13a, AY23, HG12, IBWG15, Isa20, JP16, LY16, NSJ03, Rub12, ST97, TPW09, VD23, ZTRK14, ZH21, NP96].

Recursive-Based [NSJ03]. **Recursively**

[DMSW10]. **Recycling** [AdSGC12, ABdSF15, JcS21, KdS05, NG18, OKdSG17, PdSM⁺06, RNV19, Soo16].

Red [Yav96]. **Red-Black** [Yav96].

Redefined [Lan12]. **Redistancing** [EE14, NKM10, SF99].

Redistancing/Level [NKM10].

Redistributed [AD06]. **Redistribution** [KY05, MRSS14, ROM18, SL20]. **Reduced**

[AB17, AHH⁺23, ASR⁺23, AH20, AF11, AF22, ACN19, AK04, BKG16, BK16, BEEM18, BMPS22, BGL06b, CDBH16, COS21, CHMR10, CG21, CST⁺13, DDMQ18, Ded10, DCB22, DHO12, EPR10, EF15, GV12, GV98, GM11, HJ18b, HKK⁺22, HSZ12, HCX22, KR23, KP10, LQR12, LM14b, LM14c, MR04, MS13, MMT15, MKW23, MG23, NRMQ13, OKdSG17, OS14, OS15, PGW17, Peh20b, PQR20, PS10b, PMSI21, PSS17, QGVW17, QFW22, Rav02, RMC12,

San10, SDNL10, SBK18, SPKB13, SHP07, VP14, WM05, WSH14, XBC96, XMRI18, YYS16, Yan14, Yan18, Zha20, Zim14].

Reduced-Order

[AF11, AF22, BGL06b, GM11, LM14b, LM14c, MKW23, MG23, Rav02, SBK18, SPKB13, SHP07, WM05, Zim14].

Reduced-Quadrature [AHH⁺23].

Reduced-Space [YYS16]. **Reducing**

[AGL10, BSH16, BFG⁺16, CWC08, ÇAK11, DSRMK17, YL93, Lan93, SS93b].

Reduction [AKK18, AH17, AdSGC12, ABdSF15, ATWK19a, ATWK19b, ATWK20,

ABST13, AK17, AP97, AN16, AGI16, ABTZ14, BS05a, BPR04, BB08a, BBBG11, BB15b, BG21, Ber98a, BFN17, BF22a,

BK17, BK11, BGH23, BS18b, BTWG08, BOKCW20, CTB15, CCJ07, CS10a, CBG16,

CC19, CCA20, CGHT14, DJMR23, DKPS17, DLZ10, DSZ13, EKLS⁺18, EO15, EO16a,

FMOS17, FSvdV98b, FKRH22, GLM22, GSO17, GM21, GOS12a, GPA18, GH14,

GT19, GSW13, GM23, HSF23, HKO99, HSS08, HSN⁺20, HM20b, HC21, HS01b,

HMMS22, IT14, IA14, KA95, KT15, KS20, LZMW20, LZG20, Lan19, LU17, LS13a,

LE17, LWG10, LHR⁺18, LYLC17, MMRS19, MRS16, MS18b, MZ19, NG18, OS14,

OPR23, PW15, Peh20a, PM16, PN19, Reu99, RPM23, Sai20, SV23, SvG10a,

Sma04, ST23, SK23, DFK23, SBMR18].

Reduction [Tad20, TLN14, TWJ⁺23, VFGS23, WYL⁺22, WWH17, ZBFN17,

ZCPM20, ZZ04, ZFLB15, ZCC⁺16, ZMD22, ZS04, dSGK⁺15, dSGS22, CMV97, MS93a].

Reduction-Based [MMRS19].

Reduction-in-Time [DFK23]. **Reductions** [ML11]. **Reference** [LLZ09]. **Refficientlib**

[BB17]. **Refined** [ACK19, BBP21, GHH07, HG00, JN10, KP22, Lee14, Paz20, RKLN07,

Sha99, Wan01, Ain96]. **Refinement**

[ABKS16, AHK⁺17, AMM⁺11, ABH03, BB17, BBSW94, BMV11, BWG11, CH17, CH18, CHP20, CK23, CDK19, Cha18, CC06,

CC09, CC12b, DLY17, Dax03, DDGS16, EPV94, FR10, FCC10, FHL13, GT98, GW20, GR05b, HHM08, HO15, JZ08, JP97, LC05a, LJ95, Mau95, OB21, Ong94, PP05, SBK18, SR18, SL09a, SSB08, TB99a, Tra95, WC00, WP19, WCHZ14, WI12a, ZJC12, ZAD⁺16, ZWP21, ZZL22, Zie12, TV93].

Reflection [JLY08, Mau95, PDC99].

Reflector [PTvR⁺14]. **Reformulated** [dZHY23]. **Reformulation** [BHST08, Du16, KV20b, You94].

Refractive [TBKF14]. **Regime** [BS18a, EHY21, FCZE14, HH11, HFL11, JW13].

Regimes [BJM03, CL22, Lee10a]. **Region** [BLMS21, CC12b, GTK⁺17, KHRvBW13, KHRvBW14, NNH99, Pla98, QGVW17, RS02, SKJ⁺13, TGPK23, Wu21, YMW07, YSK19, ZS18, dSK11, Sar97].

Region-Dependent [SKJ⁺13]. **Regions** [AW21, AL99a, And08, AHT17, AIV98, DP98, GM98, LCN14, NAS13, WRS08, ZSB16].

Registration [BMR13, HM05, HHM07, HHM08, HW03, HDB08, KRDL18, MR17, MB17, MGDB19, Tad20]. **Regression** [ABE⁺17, BGM09, DDF⁺21b, GLSTV16, HNR17, Hei13, JSZ22, KR18, NMFP16, SX16b, Str93, TTY16, YMM14, YDK22, You94, LL98b]. **Regular** [FO19, JLY08, NL99, Zha18a, Gu93].

Regularity [BH07]. **Regularization** [AL97, AL99b, BPS22, BKK⁺21, BC02, BZ21, BDR18, BMR13, CDBH16, CR04, CT03, CLNZ16, CEO11, CKO15, CP15b, CG19, CJK10, DDE⁺20, FGHO97, FM99, GG19b, GG18, HR96, Han95, HW01, HA08, Hwa07, IJT11, IL16, JG02, KASL21, KHE07, KO17, LFB13, Lee21, LM17, LLCW22, LLL08, LLZW19, LTG22, LvL21, Man99, NNT13, O'L01, PRM97, Reg96, RVA17, RS02, Sco17, SWU16, SJD14, TY08, ZZ22, DG95, FCR93, HO93].

Regularization-Sensitive [Hwa07].

Regularized [APSG14, BR19, BCC⁺15, BMV13, CL10, CJY16, CGM00b, Cor01, DBA19, ES18b, GCS19, HJLZ18, KO99, KL00b, Lan10, MRKS21, NP14, Sch19, Str00a, TWK18, Tim19, WMUZ13, XKWY08, ZCC⁺16, dSK11, dSO21].

Regularizing [DSC05]. **Regularly** [DY23].

Regulator [MPS18]. **Reinforcement** [DHL⁺23, GHK14]. **Reinitialization** [GB98]. **Reissner** [CG07]. **Rejection** [HGPM14]. **Related** [BGN08, BtVCG⁺10, DG98, FK00b, FT03, HHSW11, KK09, ST22b, Son12]. **Relation** [Gas13, Le 05]. **Relations** [GPS12].

Relative [DP09]. **Relatively** [BDvdG05].

Relativistic [DW97b, NH14, WT16, WS20, Wu21, McG95]. **Relativity** [GCD21].

Relaxation [AK09, ADP20, ADM10, BCT05, BM08, BR09, BLR14, BF10, BCK⁺18, BF22b, CPH14, CNP12, CCM08, CCER12, EHN12, FMB13, GS98a, GR05a, GJS19, GLR23, GR17, HHR23, HPS06, HV96, In99, IMS96, JV96, JP95, KY19a, KLLY20, KO19, LCJ⁺20, LW97, Mar09, MB19, Mu99, RL17, RSD⁺20, RWA95, Rei20, SB98, SV00, TZ95, Ver96, WH13, WX17, ZLWZ18, ZKV99, Dax93, Lei93, Pem93]. **Relaxation-Time** [HHR23]. **Relaxed** [CEHN08, FCF19, GGL07, LvL21, MMN00, PR01, TPW09].

Relaxing [CKQ14]. **Relevance** [BZ12].

Reliability [EPSS22, MS06b, SE13].

Reliable [CF00, CVW06, GS02a, SE11].

RELU [AS21]. **Remap** [BCV13].

Remapping [GTK⁺17, LL08, MCV17, WMC11, WMC12].

Remapping-Based [LL08]. **Remaps** [CRR18]. **Remark** [Goe94]. **Remarks** [BAFF00, GLL21, XQ94]. **Remeshed** [TK13]. **Remeshing** [DFS17, KR21].

Removal [CC08, MO00, AGC96].

Removing [PC07]. **Reordering** [LM05a, OKLS15, TTMA22]. **Reorderings** [Saa05]. **Reorthogonalization** [GL03].

Reparametrization [Kog22]. **Repeated** [GWBW22, HTH⁺16]. **Repetition**

[WMI09]. **Replacement** [vdVY00].
Replicated [DLRT23]. **Representation** [BMPS22, CCA03, DGS08, DCOS10, ES22, Ett16, Li99, LJ17, LT21, SDNL10, TW03].
Representations [AAB⁺15b, BDvdG05, BD05, CML⁺18a, DLY17, DNP⁺04, EPSS22, FNTB18, IK10, MC09, PSDF12, PSC⁺16, PH16, SG04, SW10b, VDD19, XD21].
Represented [Zha18a]. **Reproducibility** [DSA23]. **Reproducible** [DTT⁺16].
Reproducing [TY08, XKWY08, DR93a].
Reproduction [ZH21]. **Requirement** [BBSV10]. **Requirements** [BT03c].
Rescaled [DFQ14]. **Rescaling** [BM00].
Research [DSA23, GL10, JF11]. **Reservoir** [BLV17, BGL⁺21, ICCVEKV17, SCS04, DS95a]. **Residence** [HL19]. **Residual** [AB02, ADR14, AT17, ALMT20, BC09a, BGH13, BKT21, CW12, ELW20, EG18, HS17, HY10, KMW15, KA95, KK23, LRS02, Liu96, LN04, LD03, NFFP18, NM13, PS02, PMR16, Rad16, RJLW20, SZP19, SV01, Ton94, VK15, VYX16, ZW94, vdVY00, Bia94, CGS⁺94, Ena97, Fre93].
Residual-Based [KMW15, SZP19].
Residual-Free [HY10]. **Residuals** [LRS02, vdVY00]. **Resilience** [HGRW16].
Resilient [AGSZ16, SRM⁺15]. **Resistive** [AMMR10, AMM⁺10, ABM⁺13, ABC⁺16, CST⁺13, PSC⁺16]. **Resistivity** [DSZ13, PDTVM08, vdDA12]. **Resolution** [AMVR17, ANP00, BAFF00, CCSS03, DHE13, DMD⁺12, FHL13, FM07, Gob08, HBL05, Kup98, Ld12, LNP⁺07, LS95, LFB13, LOL13, LT00, MP20b, MT19b, MR02, PL06, Ros06b, TW05, Wel20, BSMM16].
Resolution-Optimal [AMVR17]. **Resolve** [MBKR22]. **Resolving** [TT96a, TGS08].
RESPA [MIS03]. **RESPA/Impulse** [MIS03]. **Response** [BTGH12, CVK13, RS13, SSDN12, ZMqCS21].
Response-Excitation [CVK13].
Responses [Cab94, HSK19, Lin06].
Resputtering [GST⁺99]. **Restart** [AGSZ16, KLY07, LXV⁺16, TE07, WXS19].
Restarted [ARMNW10, BCR03, BR05a, CGL⁺12, DCP11, EPE05, FG98, JN10, SSW98, VL10].
Restarting [BGH13, BKT21, GGPV10, Mee01, Mor02, MN11, RF07, SSW98].
Restarts [BMMR20]. **Restoration** [CCSS08, CGM99, CMM00, CJK10, EK10, FNNB05, FNB06, GY05, GRMS09, GLN09, HS06d, HLZ13, LTC13, NWY10, NP14, WNC08, ZWZ⁺13]. **Restoring** [BBSW16, NO98]. **Restricted** [CS99, CL11, EHLW20, HJN17, LS05a, PC07, SCGT07].
Restriction [CCV14, MRS18]. **Result** [Van00]. **Results** [ABBM98b, CLMM00a, CLMM00b, CKS01, FGMP13, FMM98, HR99b, KR12a, KLRU17, KP07, LMPQ03, LZ02, SM18, TEE⁺17, VW98, MT97a, NCV06, FGMP14a].
Resurrecting [Ros96]. **Retarded** [GJ07, PS19b]. **Retractions** [CL23].
Retrieval [CLNZ16, EBSS⁺11, KBV09].
Revealing [GE96, SWW08, MV16].
Revenge [Den97a]. **Reversibility** [CK07].
Reversible [BLR99, Cas05, GL15, HS97, HS05a, KL00b].
Revisited [CKOR16, Day98, IHTR12, SCDM⁺10, LZ94]. **Revisiting** [Ban08b, CWL⁺14]. **Reweighted** [GNL21, HAS20, KASL21, RVA17].
Reynolds [BY93, DHE13, FMW19, KV05, LFM22, NH12]. **Reynolds-Averaged** [DHE13]. **Rham** [Kir14, PV08, PKD23].
Riccati [BGL08, BBSW15, BSSW13, BBKS20, Gar97, JR19, KS20, MPS18, ZFwCW15].
Riccati-Based [BSSW13, BBSW15].
Richards [BLS14, BCV13, CZ10].
Richardson [Bia94, BGH13, PP12b]. **Ridge** [GC19a, HNR17, HC18, LTC13]. **Ridgelet** [MF06]. **Riemann** [BCLC97, BMSV97, CLLY20, DW97b, EOD93, GGK⁺04a, Gur04, Hwa07, LLD99, LL98a, MV06, Pel18, ST17a, SRCG93, Tor12].

Riemannian [CA16, CEOR18, DP17, HGZ17, KSV16, LYLC17, NRO22, QZZ14, Ste16, SV21, Zim20]. **Right** [ARMNW10, ALM19, BCCI98, CGL⁺¹³, CB98, HR05, KMR01, LN04, MN11, SG95, Soo16, SO10, CW97]. **Right-Hand** [ARMNW10, ALM19, BCCI98, CGL⁺¹³, HR05, KMR01, LN04, MN11, SG95, Soo16, SO10, CW97]. **Rigid** [BBBV13, BCF01, BLVZ23, CFSZ08, FHH⁺¹⁸, JvGVS13, PM15, SU15, TUV10]. **Rigid-Body** [BBBV13]. **Rigorous** [DKSW19, JM18]. **Rings** [HRV11]. **Ripa** [DQ22]. **Ripening** [GM20]. **Risk** [GJM94, RVA17]. **RISOLV** [TET10]. **Ritz** [GN22b, HJZ23, Kal20]. **RK** [ALI19]. **RKDG** [CLL13, DY06]. **RKFIT** [BG17b]. **RLE** [SNB16]. **Road** [GPZ17]. **Robin** [ACF09, GK12, LBHH22, NV08, QX08, Zha22b]. **Robin-Type** [Zha22b]. **Robinson** [FKQS17, KSW20, QS14]. **Robot** [EKM94]. **Robust** [AHZ17, AGH⁺²⁰, AAB⁺¹⁶, ACY⁺²⁰, AJS22, AJ22b, AKMRB22, AAO23, AKM^{+14a}, BLV18, BCT00, BT03c, BDvdG05, BR05b, BLGL11, BCM15a, Bol03, BKMRB21, BKKM22, BB09, BGMR01, BHM⁺²¹, BF22b, CCY23, CA16, CF23, CGP19, AGJT21, DEV16, DSYG18, Egg18, EN16, GL03, GGTL00, GG05, GCG⁺¹⁹, GKT09, GLOR16, GPT22, HKL⁺²², HKLW21, HLNS19, HHL15, HJLZ18, HL18, Jou94, KR14, KPS19a, KP21, KL12, KEC23, LU17, LMW17, LP22, LNz19b, wLxY00, LSZ23, LX16b, MM13, MM19, MPV21, MZWG16, Mu20, MYZ21, NN17, Oet99, OR02, OGO13, PBP14, PLT⁺²¹, Rak21, RL17, RSNR17, RW22, RX18, SM17, ST16b, SKF18, SWN20, hSSW23, Slo02, TVV20, WL97, WCS00, Wan07b, WWY09, Wat04, WOP23, WGF08, Xia21, Zam16, Zha20, ZS04, dIRRG19]. **Robustness** [CFH⁺⁰⁰, Gup17, HJ98, LMR98, Man95, NL20, WI12a]. **Rock** [GYZ11, KWD22, AC08]. **Rod** [LFWP08].

Roe [Pel18]. **Role** [Dur16]. **ROM** [HKO⁺²³]. **Roosbroeck** [Gär09]. **Root** [CGS02, GGM01, MOSS17]. **Root-Node** [MOSS17]. **Roots** [BWS20, BMV05, Bre17, GLR07, Goe94, KV96, KMV05, LX08, PH16]. **Rosenbrock** [LCR22, TS14, VSBH99]. **Rostami** [Gug16]. **Rotated** [HBL05]. **Rotating** [BLS09, BMTZ13, CLP08, GP96, KLLM22, LYZ23, PS19a, TC12, WAS94]. **Rotation** [AdWGV⁺²⁰, AKMRB22, BL07a, DK10, DSRMK17, GD03, KV12a, Lan98, Mit08, OR02, ZLZ22]. **Rotation-Based** [AdWGV⁺²⁰, AKMRB22, Lan98]. **Rotation-Two-Component** [ZLZ22]. **Rotational** [BBBV13]. **Rotationally** [SK05]. **Rotations** [BCC20, Drm97, GV13]. **Rotor** [XYZ05]. **Rough** [DHP17, EL03, HHS⁺¹⁶, QZZ19]. **Rounding** [ABC⁺²³, CHM21, HM19a, RW97, ROO08a, ROO08b, YFS21, ZH09]. **Routines** [HJ18a]. **Row** [DLRT23, GG05, GHS⁺¹⁵, GKN18, GCD18, Oli01, VD23, Dax93]. **Row-Merge** [Oli01]. **Rows** [HNR17]. **RTDs** [JLYZ23]. **Rudin** [CCS⁺¹⁹, LPP19]. **Rule** [BJW18a, CPP⁺¹⁷, GG18, LNP15, SO15]. **Rules** [Alp99, CKN06, GMvdV19, GM98, GL22c, GPTV15, HHZ22, LL03b, MC05, Str95, WS06, Wan07b]. **Run** [HR98a]. **Runge** [AGC96, AM17, AGH00, BM17b, BR09, BPR13, BBM⁺¹⁵, BRW10, CQ22, CSS93b, CHAMR06, CGAD95, Cas05, CL23, EM96, EG22, Fis19, GMM15, HMR09, Jay98, JWC21, Ket08, KCB17, LLJF21, MNS07, McL07, MRS14, MHW22, OS98, PT99, PPR05, PKD13, Pat97, Pir16, QS05a, QS05b, RHL⁺²¹, RSD⁺²⁰, RM08b, SS93a, SKPD22, SKP22, TVA02, TLT12, TP99, VV05, VS04, Zbi11]. **Running** [DP09]. **Runs** [SSDN12].

S [AC08, PL21, PM03]. **S-ROCK** [AC08]. **S-Transform** [PM03]. **SA**

[BFM⁺04, BMM⁺10]. **SABR** [LSPRV21]. **SABR/IBOR** [LSPRV21]. **Saddle** [BSSW13, BKMRB21, BORTP19, DW05a, DGSW10, EG18, GV12, HDOS23, IM98, Kla98b, Kla98c, KOV15, Krz01, KNV⁺16, LW19a, LSS03, LW04, PHJ11, RH09, ST14b, WW03, YZZ19, dSO21]. **Saddle-Point** [BKMRB21, BORTP19, DW05a, DGSW10, EG18, HDOS23, KOV15, LW19a, LW04, RH09, ST14b, dSO21]. **SAI** [MG09]. **Saint** [LCJ⁺20]. **Saint-Venant** [LCJ⁺20]. **SALSA** [FLM⁺05]. **Sample** [BGMW17, Kaw15, Kaw17, KL94]. **Sampler** [FL18, YWL21]. **Samplers** [FP14, TMM20]. **Samples** [Ant22, RNV19]. **Sampling** [AK15, ACD23, ABL20a, AHDK14, ABCP08, AWA⁺18, BSHL14, BCMW20, BBC⁺16, BCCSS21, Bou01, BV16, BCV13, CLLW20, CS14, CILZ15, CIZ18, CHZ21, CGM00b, CHM02, CML⁺18b, CGF21, DGS08, DHN17, EBSS⁺11, GYZ23, GLR⁺16, GCG⁺19, GNYZ18, GJ21, HN20, HJLZ18, JNZ17, JBL18, Kaw17, Kaw18, LLZ08, LLZ09, LY22, MFSY19, Mar16, MTM08, Mit08, MDG⁺18, OKD16, OVV17, PF12, PHJ11, Peh20a, PDG20, Peh20b, QDKW18, Sch10, ST22b, SK23, WLPU20, Wal14, WBTG18, WOP23, WI12b, ZWH⁺14, ZWH21]. **Sandpiles** [FV06]. **SART** [IJ08]. **SAT** [Gas13]. **Satisfying** [ADM⁺15, Bre17, FK19, LLLX16, LY14, ZLS12]. **Saturated** [FK97, SCC17, SCM10, Sta00]. **Saturated-Unsaturated** [FK97]. **SAV** [LL20, ALI19]. **Savart** [PRM09, Ros06a]. **Saxton** [XS08]. **SBP** [Gas13]. **Scalability** [CGSR20, CFH⁺00, GRS⁺15, HRR23, HJ98, PDE⁺17, SMYS21]. **Scalable** [APSG16, AVBTG17, ARM⁺19, BMP14, BCMW20, BDGK18, BMF19, BF22b, BOKCW20, BWG11, DU19, DKL⁺19, DTT⁺16, DV20, FS22, GTK⁺17, GvR22, GBC⁺20, Gon15, GT19, KMA⁺12, KLR15, KPPS14, KC16, MZW09, MZWG16, MPRS23, MPS09, NKGG21, OKF14, PL12, PSC18, Sch10, WZB⁺23, WLX⁺13, WG20, XOMN10, YC14]. **Scalar** [ADR14, AHV18, BG20, CS18b, CS20, DHM22, GGS08, HC20b, HSY20, HS21, JY21, LL20, LSZ23, Mar94, NMAB11, SCW23, TLE12, ZD19]. **Scalar-** [SCW23]. **Scale** [AAAH⁺19, AVBTG17, BCR03, BS05a, Ban08a, BSSW13, BBKS20, BHT09, BPSV15, BTY08, BB05, BCL99, BMPS22, BTWG08, BTGH12, CEJ⁺10, CV15, CCQ16, CN10, CP15b, CS17, CSW10, DDF21a, DDMQ18, DJT08, DKZ09, EHL06, FH21, FWA⁺11, FB95, FGH⁺08, GLSTV16, GM00a, HMAS17, HPS08, JR19, KFR21, KR23, KS20, KV13, LT09, LWG10, MWBG12, Men22, NN19, NLY23, OPRB06, OKF14, PS18, PKR⁺13, PHW19, RWDL19, RS02, RM08a, SBR06, SWW08, SWB16, SR18, SSW12, SSJB17, Sim07, SVX15, VHSP20, VMG09, VDD19, WWYX20, WYL⁺22, WM05, WT01, WRS17, Xue18, YPN⁺01, YGB⁺05, YMM14, ZYSL15, ZCC⁺16, BESS19, BHP94, CV12, MBKR22, ST94, TW93]. **Scale-Bridging** [PKR⁺13]. **Scale-Free** [KV13]. **Scale-Invariant** [RWDL19]. **Scaled** [BCP15, GMO14]. **Scales** [BMP16, RSS20, RDP08]. **Scaling** [ACdS⁺11, AMH12, BDM⁺18, BPS⁺14a, BCK16, DRW20, KL15, MBS22, ROM18, SIDR15, Sch19, SJD14, XSC21, Kor93]. **Scaling-Squaring** [SIDR15]. **Scalings** [JLP18]. **Scanned** [KTB14]. **Scanning** [BC06]. **Scattered** [EO16b, GSWZ20, ILW17, KP07, LLHF13, LR99, RG20, SCW23]. **Scattering** [AAAH⁺19, AIL05, BCAG22, BL03a, BS05b, BYZ19, BB10, BC06, BHNPR07, BER17, BCH12, BS06a, CCC18, CGM00b, CHM02, EIJH20, GH15b, GL22a, GBS⁺22, HN20, HV07, JL19, JLY08, KY19b, Kon21, LAG14, LL19, LZ17a, Lee10a, LLZ08, LLS19, LH19, MG07, MZ94, NS06, PS10b, QZZ19, Rah00, RZ03, SPS18, SM18, WY19, YWG21, Zha18b, Zha22a, ZB12, MMM⁺95, WM93].

Scheduling [AKK18, DGR⁺17, MDM15].
Scheme [AIP19, AH18, AT17, ALMT20, ALRT17, AT19, AD18b, ANP00, Aru12, AR99, ABB⁺04, BBMZ20, BM11, BBK21, BCT05, BSMM16, BCI22, BM08, BCF12, BF06, BKFG19, BFS16, BHK12, CCFP12, CCJ21, CFR05, CK15, CH94, CJ05a, yCWHJ12, CFJT18, CG96, CPR11, DW97a, DW98, DY06, DFS17, Dax03, DKKP14, DLV17, DGLW16, DY23, DB07, FKQS17, FF05, FCM12, GCD21, GW15, GLSTV16, GLL01, GB06b, GG05, GX16b, GMYL23, HHZ22, HCRT13, HJP04, HRS12, HWZ19, HLW13, JNZ17, JS10, KK98, KSMM18, Kon21, KQW04, KTSB19, Kup98, Kup01, KL00a, KPW17, KLLM22, LFH19, LZG20, Lau22, LNP⁺07, LE17, LSW17, LM08, LW22a, LPR02, ILTZ21, LSV13, LCJ⁺20, LW20a, Liu20, LWW22, LXL11, LW19b, MRI21, MABO07, MM19, MS06b, MW15, MKB22, MEF09, Nat98, NN19]. **Scheme** [Pet01, PJ96, QS08b, RY03, Ros96, SGS22, Sha21a, SZ06, SXL⁺22, SY08, SZZ21, Slo02, SZW20, TWZ21, Tou22, VS04, WL97, WT23, WDE⁺99, Wan04, WDG⁺18, WYT18, WY19, WM11, WT16, Xu99, XZ23, YJ13, Yan21, Yu01, YCY19, YLF23, ZHY21, ZZZ21, ZLZ22, ZCQQ21, dLRT09, McG95, ZzSpH14, NBA⁺14]. **Schemes** [AB02, Abg09, ADR14, AT20, AM20, AKPRB08, AD06, BGL08, BLH02, BT06, BBC⁺01, BAFF00, BM08, BCF13, BPR99, BP12, BV19, BS04, BM10a, BM10b, BH08, BR09, BPR13, BQRX22, BHT11, BC99, BL03c, BL05, BCV13, BKBT18, BDPR22, CFGM11, CZK15b, CZZK16, CCKP21, CPPR12, CEOR18, CHKM13, CCM08, CGK13, CGV18, CL23, CLAT10, CYZ17, CD20, CS20, CS23, Chr09, CLTX15, CL21, CHL16a, CHL16b, Dar21, DMBB10, DQ22, DEP11, DBSR17, EG22, EG23, EF05, FGS14, FO19, FM11, FSvdV98a, FRS19, FMB13, FK19, FEM08, GPW22, GB12, GCB15, GZYW18, GZW20, GSW17, GKRB16, GML⁺21, HKYY16, HOY03, HS05b, HSWW08, HPS06, Hes98, HX21, HS21, ILK05, JILGZ20, JL11, Jia14, JT98, JP00, JSZ13, JX13, JWC21, Jin99, JW13, JLZ16b, KPS19b, KS14, KW10b]. **Schemes** [KNP01, KPP07, KP09b, Ld12, LS12a, LO19, LE10, LV13, LL98a, LDS11, LV10, LM05b, LM12, LPR00, LNSZ06, LI01, LP23, LN03, LT00, LW03, LSZ11, LPS13, LY14, LP03, Lu95, MV09, MNS07, MB13, MMS05, MR01, NN03, Nor07, OL98, PPR05, PKD13, PLVG⁺22, PL21, Pet05, PPRS19, PP12b, Pup03, QS03, RSD⁺20, RU01, RSS20, Roe98, SL11, SRS19, SKWK18, ST14a, Sei95, SY14, SYY09, SY18, Ste00, Sur00, TB99a, TW05, TSX17, Tor05, TTK16, VN03, VS03, WL01, WDGK20, WBFA09, Win10, WS20, YHS07, YY18, Yan22, Zen16, ZS03, ZLS12, ZWWZ21, ZW03, ZFZ14, ZYLW16, ZZY20, ZQ17, ZQ18, ZLJ96, BH97, Hes97, LK93, SS93b]. **Schmidt** [BG22, CCJ07, GL03, Ste08]. **Scholes** [iW11]. **Schrödinger** [ADKM03, AP19, ABK11, BJM03, BCM11, Bru15, CL22, CCG14a, CCJ07, CMZ19, CRV14, DLY16, DL22, FJ99, GRPG01, GMYL23, HWZ19, KL13b, LZ17b, LWZ17, LZZ18, LYZ23, Liv08, Luo19, MCL19, PJZ23, SSN19, YHL19, ZzSpH14]. **Schur** [ARS21, BS05e, BG05a, BG05b, Bla03, CGL01, DS95a, DKXS18, FCR93, HVK18, HSF07, Kra12, KLL⁺16, LS05a, MG11, Mal07, MRT00, MMA98, MFPG18, OV07, PE00, PL21, PSLG14, SS99, TMA23, WB99]. **Schur-Type** [PE00]. **SchurRAS** [LS05a]. **Schwarz** [AJR23, And08, ADM10, BT03b, Ban08b, BGOD08, BC10, Bre00, Cai94, CGK⁺98, CS99, CL11, CPW15, CC12a, AGJT21, DK11, DGGG09, DGK⁺16, DGL⁺12, EDGL12, GMN02, GR05a, GK12, GX16a, GZ16, GV19, GJS19, GV20, GLR23, Gar96, GKV00, Gar05, GSV20a, GH99, GC97, HJN17, HR07, HKR16, HKKR19, HHK19, HL20, HKK⁺22, KC16, KWG⁺20, KO19, Li94, LSC18, LNS15, LWSP22, Lui00,

Lui01, MMK23, Mar09, MHR20, MPS09, PZPR07, PS08, PS11a, PBC05, PC07, QX08, ST00, SCGT07, ST96, TDTF03, WB99, WH13, WX17, XSWG23, Zha94, dIRRG19]. **Schwinger** [ABIGG16, LY18, ZNZ16]. **Sci** [BEM94]. **Science** [HC21, JKR08, WRB⁺15]. **Sciences** [SBMR18]. **Scientific** [ATWK19a, ATWK19b, ATWK20, BBC⁺16, CC18, GvR22, HBB⁺16, KPÇA12, SS03, TYUC19]. **Score** [BCJ⁺21, Ng94]. **Score-Based** [BCJ⁺21]. **SDD** [CLB21]. **SDE** [ABE⁺17, BM17a, GS14]. **SDEs** [BGS17, KS17, Vil15]. **SDP** [BTY08, LT09]. **SDP-Based** [LT09]. **Seamless** [GC17a]. **Search** [CKXZ18, GKL08, GT19, HKT01, LST07, OW02, SV21, Wan13, WJW21, XB16]. **Searches** [COS06]. **Searching** [CD15a]. **Second** [AVZ13, AdWR17, BBSW16, BS05a, BBHJ21, BGN07, BB15a, BCI22, Bre17, BLL07, Cas05, CK15, CYZ17, CM99, DM13a, DZ15, Del14, DG09, DAE02, DHP17, DKM14b, EHLW20, EIL01, FL19, GV19, GW15, GBCT10, Gia18, GY05, GZYW18, GZW18, GLT09, GNPT18, GdLP⁺18, HW13, HL09, HH11, JILGZ20, KM11, KP09a, KO05, KLLY20, KCB17, KP05, Kup98, KPW17, KL11, LP11, LZZ18, LN03, LWW22, MWY17, NL16, ÖB05, PLVG⁺22, RL10, RM08a, ST03, TVA02, VSBH99, Vil14, YY18, Yan21, ZLLT15, ZYSL15, ZCS22, ABCR93, Atk94, She94, She95]. **second-** [She94, She95]. **second-kind** [ABCR93]. **Second-Order** [BS05a, BBHJ21, BB15a, BLL07, CM99, DM13a, DG09, DAE02, DKM14b, EIL01, GW15, GBCT10, Gia18, GZYW18, GNPT18, GdLP⁺18, JILGZ20, KM11, KP09a, KO05, Kup98, KPW17, KL11, LZZ18, LN03, LWW22, PLVG⁺22, RM08a, ST03, VSBH99, Yan21, ZLLT15, ZYSL15, ZCS22, AdWR17, GY05]. **Section** [Ben13, Ben15, Ben17, BD23, DJM16, GH07, KY14, MY21, TBC⁺11, Yav19]. **Securities** [IT14]. **Sediment** [BSS09]. **Sedimentation** [BRBT12]. **Sedimentation-Consolidation** [BRBT12]. **Seeking** [Sta07, SM07]. **Segel** [HS21]. **Segmental** [ABKS16]. **Segmentation** [CCS⁺19, CMSS06, DMN08, HHMDC18, LQZ22, LB07, LB08, ZCE06]. **Segmentations** [HLT16]. **Segregated** [GNOR14, HSF07]. **Segregation** [Boz09]. **Seidel** [AM95, Day98, HNR17, TTMA22, Ver94]. **Seismic** [AKM⁺14a, BU15, BTGMS13, HCHY23, MWBG12, PDC99, vLH14]. **Selected** [LYL⁺11, dVL10]. **Selecting** [LLCW22]. **Selection** [AdVC00, CZ13, DG16, JMNS16, Lin16, MS07a, SX16b, Wei99, YYWY18, dVPS⁺17]. **Selective** [GL03, Gup17, RT10]. **Selector** [FLX21, WY12]. **Self** [BMP22, Bou01, CW22, CGO22, De 12b, GGS19, GHK14, LY13, PDTVM08, PCL⁺16, WMUZ13, Sta97]. **Self-Adaptive** [CW22, PDTVM08, PCL⁺16]. **Self-Assembly** [CGO22]. **Self-Avoiding** [BMP22]. **Self-Consistent** [LY13, WMUZ13]. **Self-Learning** [De 12b]. **Self-propelled** [GHK14]. **Selfadjoint** [CPV95]. **Semantic** [ZS99]. **Semi** [ALJ99, ACF09, BT06, BCT05, BSMM16, BP13a, BF14, BQRX22, CF07, CMSS06, GC16a, GRL10, GLMS22, GX16b, HMR09, KS13, Kor15, LL02, Lay03, MB17, MO10, PS19a, PPRS19, RG09, RLM⁺00, DFK23, ZTBK18, ZCQQ21, dFL05, HO96a]. **Semi-Conservative** [PPRS19]. **Semi-Discrete** [BT06]. **Semi-Implicit** [ALJ99, ACF09, CMSS06, GRL10, GX16b, HMR09, LL02, MO10, RG09, ZTBK18, BCT05, BQRX22, GC16a, KS13]. **Semi-Lagrangian** [BSMM16, BP13a, BF14, CF07, Kor15, LL02, Lay03, MB17, PS19a, RLM⁺00, DFK23, ZCQQ21, dFL05]. **semi-Toeplitz** [HO96a]. **Semialgebraic** [BN23]. **Semianalytic** [MS07e, Zha18a].

SemiAutomatic [BCK22]. **Semiblind** [BDR18]. **Semicircle** [BMaK19].

Semicirculant [HO94, HO96b, HBS00].

Semiclassical

[BJM03, BG07, CL22, FGL09].

Semicoarsening

[BFJ00, Den97a, Sch98, WO98].

Semiconductor

[ANP00, BG07, DHL21, GJ08, JW13, Kla98a, Kla99, MT96, RWA95, Sar98].

Semiconductors

[BJ08, CCM05, DJP00, HJP03].

Semiconvergence [EHN12]. **Semidefinite**

[Gri94, HGZ17, KLLY20, KOSB16,

LWYxY18, ST14a]. **Semidiscrete**

[BP13b, KP12b, KL00a, KNP01, KPP07,

LMM18, TWK18]. **Semilinear**

[AW15, BBH18, BV20, BWZ10, BHW99,

CJ05a, GLSTV16, HJX23, KK18, LZ01,

MW22, ST00, WGT14, XYZ22, Xu94].

Semiorthogonal [Ste02]. **Semiseparable**

[GCG⁺19, WLX⁺13]. **Semismooth**

[BU15, FLX21, WC23, LWYxY18].

Semistructured [MFY23, MBVOT22].

SeMPIHT [dMGF17]. **Sense** [BW96].

Sensing [ADLW19, DFG15, KBV09,

TCDS21, YZ11, YLHX15]. **Sensitive**

[Hwa07]. **Sensitivities**

[AL07, DCB22, GK13, MNBK10, MM14].

Sensitivity

[ACY⁺20, Bar05, BBR04, BV00, BBC07,

CLPS03, CDF18a, CKLP11, CAG⁺19,

GH15b, GV07b, GM00a, HTMM15,

HvBW23, KSB11, PVC17, SW22a, SD21,

TB02, WTWB09, ZCS22, ZPE12]. **Sensor**

[GS12, KKZ17, WCG23]. **Sensor-Location**

[GS12]. **Sensors** [GG19b, SMZ18].

Separable [BGM09, BF95, CN10, MG23,

NCCR22, RT99, dBMZ11, DLG97].

Separated [BKK18, BKK⁺21]. **Separately**

[AMHR15]. **Separation**

[HCHS13, LJ17, LZ20, PHW19, SX11].

Separators [KPÇA12, MTTV98].

Sequence [HH13, KKV13, KA95, MGH21].

Sequences

[ACW21, BRZ14, HLL00, JK08, MC94,

NHSS13, PdSM⁺06, PV08, TT07, Pel93].

Sequential

[AL97, AL99b, BDHS10, CGDD11, DGHL12,

DTV13, EPSS22, HS99a, LLL08, OK13,

WLPU20, WRB⁺15, Yan19, vdHCDD15].

Sequentially [dMGF17]. **Serendipity**

[MMK23]. **Serial** [LSW02]. **Serially**

[CDY07b]. **Series** [AM18, BS98, Bar00,

Bar05, BKH⁺22, FO08, HT14a, HCHS13,

Hor10, IK10, RO12, WM05]. **Set**

[AGHJ23, BP13a, BH11, COS06, CGS02,

CDM⁺13, Cho09, FM07, GKL08, HKL⁺22,

HSW08, KP11, KS13, KKK18, LCG21,

LQH21, LST07, LYLC17, MO00, MO10,

MvdM21, NKM10, PVC17, PSDF12, PST15,

QL06, RS00, SF99, TKW08, TWJ⁺23,

Vog16, Wen10, YYS16, ZJX14, ZCE06].

Set-Valued [PVC17]. **Sets**

[BBC⁺21b, CHX15, CWD13, FD03,

HMST11, LZ13b, MYN20, MDC08, NX13,

PD15, VZA⁺23, PVK16, Zha18a]. **Setting**

[ÇKAA22, OW02, SKPD22]. **Several**

[EKM94, LW03, vD03, HHRV93].

Shadowing [CV94, HJ07, Van95, Van00].

Shafranov [LTzT21, PTT20a]. **Shah**

[CCS⁺19, DMN08]. **Shakhov** [CLQ12].

Shaking [GL15]. **Shallow**

[AK09, ABB⁺04, BBSV10, BM08, BP12,

BCCX21, BL05, BT16, CLP08, DEN21, FS01,

FM11, GdLP⁺18, HK02, KP09b, KLLM22,

Lay03, Le 05, LRP07, LP08, LDS11, LM21,

Liu20, Mar09, MSS12, MRKS21, PS19a,

RLC08, RLM⁺00, TC12, YCC10].

Shallow-Water

[BP12, CLP08, Le 05, LRP07, LP08, LDS11,

RLC08, RLM⁺00, TC12]. **Sham**

[DLY17, DL20a, LY13, YMW07]. **Shannon**

[OGO16]. **Shape** [ACLZ15, BWB19, BL23b,

BLMS21, BLMS22, BLVZ23, BFP22, BCH12,

CC12a, CDM⁺13, CGMV05, DEM⁺20,

DD12, DMN08, DFJS19, EHLW20, GLM22,

GLL⁺15, GHHK15, GMV99, GLZ22, HT13b,

HSU21, HS06b, Haz08a, Haz08b, HL19, ISW18, LZ23, MBGV16, MPRS23, PWF18, SSW18, Sch18, SGS22, SW17, SSJB17, SD21, vdZvBdB10b]. **Shape-Driven** [DEM⁺20]. **Shape-Linearization** [vdZvBdB10b]. **Shape-Newton** [BLMS22]. **Shapes** [BW20, DCSO10]. **Shared** [Gon15, OAA20, Til15, NP93a]. **shared-memory** [NP93a]. **Shared/Distributed** [Gon15]. **Shared/Distributed-Memory** [Gon15]. **Sharp** [BFSN08, GCS19, GvdV17, XLG⁺16, ZD09]. **Sharpening** [Rei18]. **Sharper** [HM20a, Van00]. **Shaw** [ZLY⁺18]. **Shear** [GT98, TW96]. **Sheet** [BN98a, BSA13, ISG15, Nit99, PMSG14, TPT⁺16]. **Sheets** [ALMR17]. **Shell** [LCH99, Nie16]. **Shells** [SGS22]. **Sherman** [BCMM03]. **Shield** [ST03]. **Shift** [CLL20, CG17, LPS10, ZTK19]. **Shift-and-Invert** [ZTK19]. **Shift-Invert** [LPS10]. **Shifted** [BKL⁺17, BvG15, BDdSM11, BBD18, CG17, CGX21, FG98, FKN⁺20, RSSM18, SBK13, Soo16, WWJ12, YBHY15, vGEV07]. **Shifted-Inverse** [YBHY15]. **Shifting** [Wat94]. **Shifts** [DKZ09, DLZ10]. **Shiu** [LSYY21]. **Shliomis** [dZHY23]. **Shock** [CC98, CLLY20, DW97a, DGLW16, FL97, GGK⁺04a, Hwa07, Men94, WL97, WDG⁺18, Wu99]. **Shock-Induced** [CC98]. **Shock-Stable** [CLLY20]. **Shocks** [MBKR22]. **Shooting** [CGR14, CDZ22, HM10a, Lam97, Rán93]. **Short** [CW16b, PPS22]. **Short-Term** [PPS22]. **Shortening** [BM11, MNRI19]. **Shot** [CC12a, Gub96, Haz08b, Haz08a]. **Shot-Noise** [Gub96]. **Should** [Che16]. **Shrinkage** [BL08b, LLS22b, MF06, WYGZ10, YYWY18]. **Shrinkage-Thresholding** [LLS22b]. **Shrinking** [YZZ19, ZDZ16, ZLY⁺18]. **Shuffling** [Gre03]. **SIAC** [vSRV11]. **SIAM** [BEM94]. **Side** [BCCI98, CB98, ELW20, SO10]. **Sided** [BB15b, LMT18, WMHK19]. **Sides** [ARMNW10, ALM19, BT03b, CGL⁺13, HR05, KMR01, LN04, MN11, SG95, Soo16, CW97]. **Sideways** [EBR00]. **Sierpinski** [BBSV10]. **Sigmoidal** [Yun03, YK03]. **Sign** [BSS09, GM17, Gar97, ROO08b, SQO02]. **Sign-Definite** [GM17]. **Signal** [BS95, EK10, LKBJ18, NN05, RWDL19, Tao22, WDT22, XKZ95]. **Signaling** [SAE10]. **Signals** [AGHJ23, BBR08, GG09, HTH⁺16, SWU16]. **Signatures** [DG17a]. **Signed** [FMS17, ST14b]. **Significant** [Nik13]. **Signorini** [CBK18, DEP11, Rad16]. **Silicon** [BI09]. **Silvestre** [GN22b]. **SIMD** [BPT93, CP95, KHW⁺14, MH95]. **Similarity** [Pel18]. **Simple** [Abg09, BMTZ13, Bre96, Du11, GNOR14, GLQ18, GCN21, HT14b, HVK18, HZZ20, HS94, KV96, LHN96, Mac98, MP20a, MY20, PNP13, Ren15, SA99, SvG08]. **Simplex** [Che05, HDZ16, WI12a, WI12b]. **Simplices** [Isa20, Kir14]. **Simplicial** [Mau95, MAK20, Ols07]. **Simplification** [RKLM18]. **Simplified** [BH12, BRZ14, EIL⁺09, HZ10, LD05]. **Simply** [DP98, NN18]. **Simulate** [DR13, Zha22a]. **Simulating** [AL99b, BMP22, BL23b, HP19, MBGV16, MDA22, MDC98, MM07, SAE10, WGF08, ZMqCS21]. **Simulation** [Ama98, AL07, BB13, BST08, BLV17, BGL⁺21, BG07, BI09, BLGL11, BBM⁺08, BEOR17, CCM05, CLQ12, CM09, CC98, CLP08, CBCR14, CLK18, ICCVEKV17, CBF17, CVE13, DHS22, DMR17, DN97, Dor98, DP16, EAS08, EAA21, EFHL09, EKSS16, EdDP09, FFMT96, FL04, GM17, GHTW00, GY06, GL15, GM20, HA01, HS16, HBB⁺16, HK03, HPS08, Hof04, HWZ19, HCW20, HSSZ09, JP14, KBK⁺08, KRW20, KK02b, KP06a, KLT06, Kof04, KKT19,

Kös07, LL19, LLS22a, LL03b, LY98, LLZ15, LS23, LNA⁺¹¹, MBKR22, MTV16, NK13, NNH99, ODN17, Ökt05, PDTVM08, PP13, QS14, RWA95, SB13, SCS04, SD11, TKW08, TK13, Ten98, TAY⁺¹⁹, TYUC19, VBA18, Wal18, WZ18, WLK06, WPT17, WFAP15, XW05, YC14, YTT21, YGS⁺²¹, ZHQ20, DS95a, MT97a]. **Simulations** [BBSV10, BHvST14, BPS13a, BPSV15, BGPS21, BN21, BRK16, CQ22, CL03, CW06, CWG10, DDGS16, Don06, EHL06, FHH⁺¹⁸, FTY15, FNL⁺¹⁹, FY14, GHK14, GST⁺⁹⁹, Gob08, GM14b, GC16b, GZT⁺¹⁹, GX20, HHLZ21, Har08, HPR22, HKC⁺⁰⁴, HJP04, IP06, JP01, KKP14, LJL09, LP04, LHR⁺¹⁸, LZ04, NK15, NKTY08, NH14, OKF14, PS10a, PKS21, Ros97, RHSK11, SM17, SXX17, SNB08, Str99, SRW⁺¹⁸, TTSM08, WSA16, WPGR13, XCS16, XZLX22, XLG⁺¹⁶, ZSD⁺¹⁰, YGCP96]. **Simulator** [PYSG13]. **Simultaneous** [AA14, AdSK19, ADLW19, BCH12, BS96b, BT21, ÇKAA22, HS06b, HID23, LD03, YSS07]. **Simultaneously** [AMHR15, CC10, CHZ21, ZGA10, ZZL22]. **Sinc** [LB11, RT11, SO15, ADS21, LW22b]. **sinc-Basis** [ADS21]. **Sine** [AMHR15, BDZ13, Di 97, Zhe07]. **Sine-Gordon** [Zhe07]. **Single** [AGPR19, BSX22, BS06b, CCF14, CS94, CJ05b, Far01, HKL⁺²², MKWG15, Nov15, ZGA10]. **Single-Level** [BSX22]. **Single-Needle** [CS94]. **Single-Pass** [CCF14]. **Single-Phase** [AGPR19]. **Singly** [KW15]. **Singular** [AT19, BKK⁺²¹, Bet08, BC02, Car07, CPS11, CGHT14, De 12b, DLTZ06, Drm97, DF21, FH21, GV13, GSR19, GP18, Gu15, Hag00, Hel11, HJZ23, JN10, KO13, LS12b, LWW20, LXZ20, LWZ13, LLJ22, MAH22, MHS98, NV98, Nov23, Ste99, Str95, SJD14, TT96a, VVM12, Vir07, WS15, XEG06, YR98, Yav98, YLF23, Yun03, YK03, ZZZ21, ZW03, BD93, BZ93, BR95, Gar96]. **Singularities** [AMVR17, CKS01, CWZ07, XEG06, ZMK17]. **Singularity** [HJZ23, PLVG⁺²², Li94]. **Singularly** [KH18, LLS13, MM13, OW98, ST00, WO98, XYZ12, XYZ22]. **Sinks** [WLE⁺⁰⁰]. **SIRT** [EHN12]. **SISC** [DSA23, Lan12]. **SISO** [DSZ13]. **Sivashinsky** [APS12, PWM22]. **Sixth** [HKYY16]. **Sixth-order** [HKYY16]. **Size** [BBC07, HS05a, Man99, CMV97, CFKM18]. **Sizes** [MPV21]. **Skeletal** [RDP08]. **Skeletonization** [HG12, MXB15, RD21]. **Skeletonized** [CD19]. **Skew** [BGLY05, BGL06a, DLP05, Gas13, JK10, MW01]. **Skew-Hamiltonian** [MW01]. **Skew-Hamiltonian/Hamiltonian** [MW01]. **Skew-Hermitian** [BGLY05, BGL06a]. **Skew-Radial** [JK10]. **Skew-Symmetric** [DLP05, Gas13]. **Skinny** [CGHT14]. **Slab** [AHT12]. **Slant** [GV09]. **Slater** [ISS06]. **Slender** [MP20b, RS03]. **SLEPc** [CR16]. **Slicing** [LXES19]. **slimTrain** [NCCR22]. **Slip** [BH00b]. **Slit** [Ama98, HT09]. **Slope** [MB13, Zen16]. **Sloppiness** [vLH14]. **Slow** [CE17, LSU11, RS16]. **Slow-wave** [RS16]. **Slowly** [KKV13]. **Slyozov** [GM20]. **Small** [AIL05, AILP07, BM95b, Bre00, BRW10, CEP20, DW17, DW94, GBS⁺²², KL94, May08, MT97b, RW06, Ste11, WZ18]. **Small-Amplitude** [GBS⁺²²]. **Small-Sample** [KL94]. **Smallest** [BS05e, JN10, MB99]. **Smarter** [LLS22b]. **Smectic** [CYZ17]. **Smectic-A** [CYZ17]. **Smith** [Pen00]. **Smoluchowski** [FL04, MNBK10]. **Smolyak** [CM13]. **Smooth** [AG21, AHH06, BV98, CZK15b, Cho05, DG17a, EFOS20a, EFOS20b, HSK19, Hel11, KO17, KD20, VZA⁺²³, Atk94]. **Smoothed** [BFM⁺⁰⁴, BMM⁺¹⁰, BOPGF06, DMM^{+10a}, EO16b, Gon15, MGH21, PoH09, ST08, TY11, TY15]. **Smother** [GNOR14, LRGO17]. **Smoothers** [BFKY11, HLX23, LDM00, dlRRG19, Yav93]. **Smoothing**

[BGMRO1, CKXZ18, FJP99, HJS18, HA08, JK11, LNS96, LTG22, MFJ19, MPV21, Ng94, RG98, TGC94, WZGO21, WWH17, Woo94, Yav96, ZW94, dWPR20, Ena97, Gu93].

Smoothness [GL22c, MKRK13, SCDM⁺10, vSRV11].

Smoothness-Increasing [MKRK13, vSRV11]. **Snapshot** [IW14, Wel20]. **Snapshots** [Wel17]. **SNS** [CCA20]. **SOBMOR** [SV23]. **Sobol'** [HAG17, JK08]. **Sobolev** [BKM19, DK10, GRPG01, LZ21a, NR98, RN95, Ste00]. **SODEs** [BRW10]. **Soft** [ACY⁺20]. **Software** [AS94, DJM16, EM96, HML⁺04, KMRW97, LXES19, LKvBW10, MRK20, PK19, ZAD⁺16]. **Software-Based** [LKvBW10]. **Soil** [BLS14]. **Solar** [WFG⁺20]. **Solid** [ASZ07, BK00b, BCG⁺10, KCZ15, LHL12, PRS12, PM15, ZJB20]. **Solid-State** [ZJB20]. **Solidifying** [KVMK01]. **Solids** [CG96, SBHS19, Tra95]. **Solitons** [LC05b]. **Solution** [ABLS05, ADGM98, AP97, AL99a, ANP00, AGR20b, ABI00, BS08, BCR11, Ban08a, BJNN02, BK98, BCCI98, BK99, BL03a, BD04, BLB00, BGK15, BSS09, BSSW13, Ber98a, Ber98b, BLM22, BMSV97, BK00b, BBC07, BIYS00, Bre99, BC99, BC08, BC09b, BDG20, BWZ10, BBR08, BKS98, BTGH12, CG18, CKS01, CGL⁺13, CR04, CLPS03, CH17, CH18, CP05, CCA20, DKDH20, DD00, DF20, DL19, DKKP14, DB94, DAE02, DKO12, DS17, DKZ09, DSZ13, DHZZ18, DTY18, DLP⁺21, EAS11, ES19, EM99, EHW00, FB21, FL97, GS16, GG19a, GLL⁺14, GLMN15, GHST98, GHN01, Gre93, GV98, GS00, GV09, GS97, HRT10, HG98, HW15, HT13b, HP94, HRS19, HHL07, HLM03, IM99, ISG15, JTZ08, JZ00, KW07, KBK⁺08, KKF11, KO99, KMR01, KLN20, KP22, KRS21, LVWW03, Lan94]. **Solution** [LL98a, LLP98, LW19a, LS13a, LV10, LR20a, LM14a, LSN17, LB15, LO03, LLL08, LGC⁺23, MM13, MR09, MSW05, MPRW98, MPW18, MT99, MHS98, NFFP18, OD12, PS13, PP05, PTT20b, QOQOP99, Rah96, SMZ18, SSW18, SBS98, SE11, SP02, SKPD22, SKP22, Sta00, SJD14, Tim19, TC99, TW95, VMG09, WS95, WW22, WWM03, XK08, YG15, YHC16, Yan18, YVB98, YP98, Zha20, Zhe07, ZHDZ17, ZS02, vWBV09, ABCR93, AS93, AO93, BZ96, BR95, BH97, BHP94, CDH97, LV94, MCJN94, PCDB96, SRCG93, Tre97]. **Solution-Based** [Ber98b, CCA20]. **Solutions** [APZ13, AEFM17, ADKM03, AFF⁺15, AA13, AF22, AHDK14, AGH00, BGK15, Bet08, BK04, BV00, BS96b, BBT11, BJW18a, CZK15b, CZZK16, CEJ⁺10, CDF18a, CXY10, CHWY23, CK94, DTM05, DP03, Du11, EFHT23, Ema10, ELtHR00, FS01, FBF15, FL02, Gär09, GGK⁺04a, GI99, GN22a, HXB11, JP08, KK02b, Kus00, LK21, LD03, LR98, MS07d, MKRK13, MRL⁺17, PL03, PFS21, RL18, RO15b, SBP04, SE13, SB05, SK05, SMN10, Tou22, VXCB16, WXX04, WHL18, Wat04, XYZ12, XYZ22, XXdH⁺17, ZGA10, Zha96, vSRV11, vdBF08, vdDA12, TR93]. **Solvability** [CG95]. **Solvation** [BZ10, QSM19]. **Solve** [CCF14, CFM98, EVLW17, FT03, GH13, Gar94, HP14, Hog13, PRS12, QZZ14, Sar98, VS17]. **Solved** [MG11]. **Solvent** [WSA16, XJS13]. **Solver** [AAAH⁺19, AHK⁺17, AG18, AAI98, ABL20a, ACW21, AIV98, AMT10, BDJ05, BL04a, BACF08, BL07a, BBFJ16, BPSV15, BG05a, BG05b, BCS11, BBD18, BIA99, BIA05, BT22, BS23b, CW22, CB98, CGG⁺14, CLLY20, CPD17, DMS01, DW97b, DHL21, DP10, DHL20, EG01, Fie98, GHRR19, GH18, GLR⁺16, GM14a, GAD⁺21, GHST98, GS02b, Gur04, Hel11, Hen06, HD15, HG12, HG00, HYW20, Hwa07, IFSJ21, JMNS16, KCZ15, KZ00, KM18, KV12b, KL12, Kor15, KR12b, LAG14, LLW16, LNZ19b, LL08, LB12, LXYZ23, MR17, MB17, MGDB19, MM14, MK08, MSM14, MY20, OR02, OW98, PW98,

PSS17, Rak21, RT99, RLM⁺00, SBK13, ST17a, SO18, TET10, Tor12, VB07, WRS17, XJBS12, XL20, XOMN10, YC14, ZCS22, dIRRG19, BCLC97, EOD93, PTvR⁺14].

Solvers [AC04, AHZ17, AKS05, ALM19, AGL13, AGHJ23, BMF19, BKBS20, BCK16, BKKM22, BHMx18, BD99b, BH07, BMV13, CPS20, CR16, CGC21, CCER12, CM15, CDPC13, CRV13, DDF21a, DS00, DMMO04, DFN12, DP19, EGKS94, EPSU09, EG18, FGMP13, FGMP14a, FGMP14b, FFMT96, Fan22, GMSB16, GGOY02, GRT05, GBC⁺20, GRS⁺15, GB06a, GKS98, GT19, GS97, Hig95, HO96b, HGRW16, HPS22, JSV10, KA95, KW00, KW18, LM00, LZ21a, LL00, LD16, LXdH16, LBHH22, LT14, LCJ96, LGH⁺13, MO08, MS07c, MKSG10, MMR19, MHR20, MS06b, MBT21, Mee01, NS19, OAA20, PNW16, Pel18, PRR05, PPB13, PF94, PR96, PCD17, RDW10, RV10, ST16a, Sem10, SLC01, TBM21, UEE12, WZ15, ZG23, ZGG17, dSO21, BME93, BEM94, CN93, JS93, Lie93, She94, She95, vd97].

Solving

[AFF⁺15, ACW12, AF15, ACD95, AH04, ADF⁺19, BS07, BBSV10, BW18, BW21, Bea20, BK06, BFN17, BT97, BGH⁺03, BH08, BHT11, BT13, BW96, BMMT14, BP06, BSS21, BWZ21, CLW13, CH09a, CK17, CJH11, CZ10, CS96, CN99, CLB21, CYDK21, CLST03, CZ22, CS12, CGM00b, CHM02, DY06, DLY14, DN13, DH01, DQ22, DJLZ96, DS16, DSS20, DTY18, DK03, EBR00, Elm98, Elm00, EPE05, Ett16, FF05, FMP06, FJP⁺11, FKW13, Gar97, GG03, GXZ21, GN23, GJ21, HHE10, HZ10, HPZ19, HP21, Hol99, HVW95, HC98, HY10, HJZ23, HW09, HGZ17, IM97, JX13, KS20, KL13a, Kra09, KW10b, LV98, LL17, LCH09, LSH17, LSY19, LZ13a, LSPRV21, MK00, MHW22, MZDK22, Meu11, Mir21, MR18, MMN00, Moo00, Mu99, Nwy10, NvdP00, Ökt05, PE00, PL12, PEdD12, Pol16, PC21, Pul08, RNR16].

Solving

[RW01, ST17b, Sco17, ST19, Sim07, SvG08, SV11, SO10, SL22, TO15, TCDS21, UG19, VP10, WZB⁺23, WLX⁺13, WC23, WiOH08, XYZ22, YCZ13, YDF97, YTLI11, Yu01, ZLLT13, Zha97, ZJC12, ZGK20, ZW03, ZQ17, CW97, LZ94, MT97a, PSB⁺06].

Some [AA13, BF01, BMR10, BDS98, BM12, BFS16, BT00b, Bur23, Cho01, Chr09, Gar00, GH02, GPW22, GLL21, HLL⁺22, Huc93, JZX⁺21, Jin99, LZ16, Man95, MS04, Mic01, Moo00, OL98, PABG11, RST93, Sun93, XQ94, DG95]. **Sonic** [BD99b]. **SOR** [BD05, DB98, GK11b, RWA95, XA99, Xie05, Yav96]. **SOTT** [ERL22]. **Sound** [CC98]. **Source** [AGH00, BBK21, BKK⁺21, BBF⁺22, CGK13, Gia18, GHR12, GHR13, GMS18, HHP21, HR99a, HCHS13, JL19, JW05, LLSX21, SKN19, SX11, WKM⁺07, ZTM⁺16].

Source-Term [ZTM⁺16]. **Sources** [AdSK19, AKM⁺13, BT21, GKRNS19, HJZ23, KBV09, WLE⁺00, YLF23]. **Space** [ALLK15, And16, BO17, BK99, BCMW20, BBH18, BC09a, Ber95b, BCJ⁺21, BP13b, BV16, BRZ14, BDE08, BBH20, BTWG08, Bur97, BHK12, BH16, CPW15, CDG17, CSB⁺18, CMS94, CCRT21, CF23, CC19, CHO12, CFM96, CCG14b, DDMQ18, DSW22, Day98, Dk00, DJT08, DT00, DMSC18, DW15b, DMD⁺12, DB07, DGvdZ18, EKSW15, FDE⁺06, FMB13, FK21, Fu21, GS98a, GN16, GBM22, GJZ18, GOV06, GST23, GRPK19, GMPZ06, GZ19, HP14, HLP23, HKR16, HHW00, HLNS19, HV95, HC98, HHLW15, ISS19, KV20b, KV12b, KS14, Kye12, LZ21a, LSTY21, Leh15, LSC18, LSY19, LGC⁺23, Moo00, MCV17, NHSS13, NXDS11, NT18, PNW16, PvdVvG17, PS19b, PBC05, RF10, SV08a, SSR21, SW22a, Str94, TY08, TW05, Tou22, VBA18, VD23, WMC12, WB12, WGT14, WMOZ22, XZ23, YTLI11, YYS16]. **Space** [YHC16, Yan14, Yu01, ZK14a, ZZ04, ZGK20, ZzSpH14, ZLTA15, AE95, WMC11].

Space-Filling [BH16, GST23, GMPZ06].

Space-Fractional [ALLK15, DMSC18, DW15b, GRPK19, PNW16, WB12, ZK14a]. **Space-Invariant** [BDE08]. **Space-Split** [SW22a]. **Space-Time** [BO17, BBH18, BV16, CDG17, DSW22, GN16, HLP23, HLNS19, LZ21a, LSTY21, LSC18, NT18, PvdVvG17, PS19b, SSR21, Tou22, WMOZ22, XZ23]. **Space-Transformation** [HC98]. **Spaced** [GJLX16, Har11]. **Spaces** [ACK19, BKM19, BF22a, CGSR20, AGJT21, DW17, Doh21, EAA21, GL22c, HKKR19, HHK19, HL20, HKLW21, HKK⁺22, KKR16, KP22, KC16, LZ21a, LCE22, LMM17, MS13, MT19a, MNvST13, MPRS23, NS21, PF12, PV08, QZZ14, RV22, SStM23, SW17, SP16, WI12b, YZ05, ZT17]. **SPAI** [JZ13]. **Spalart** [DHE13]. **Spanning** [HSK19, PP97]. **Spark** [CHJ16]. **Sparse** [AKA13a, AGSS19, AGL10, AKA13b, AA14, ARS21, AJS22, AJ22b, AJR23, ADL⁺12, ALM19, APÇ04, ABB⁺16, BK07, BW18, BW21, BSH16, BB08a, BGM13, BM95a, BMT96, BT98, BT00a, BT03c, BNP15, BBFJ16, BCFJ19, BAS09, Bit99, BC13, BESS19, Bör09, BvW09, BS99b, BT99, BGMR01, BCM03, BG12, But13, CS99, CH17, CK23, CCA03, tVÇAU10, CCQ16, CS98, Cho00, CLN12, CV98, CKLN98, CHKsL20, CFM98, DS00, DLP05, DHL20, EIJH20, FLX21, FUNB18, FLU⁺20, FS11, FJHM19, GN14, GNL21, GLS13, GSR19, GG05, GS98b, GHS⁺15, GKN18, GOV06, GDL07, GBDD10, GCD18, GH97, Gug16, GC16b, HN19, HKK⁺13, HHLS15, HJ18a, HC05, HK00, HP94, HRS10, HWS05, HV07, JNZ17, JFG15, JKY21, JL19, JL20, JZ13, JSZ22, JP08, KU18, KAU18, KS23, KD20, KMSM14]. **Sparse** [KHW⁺14, KM12, LSW02, LOSZ07, Lee13a, LSC03, LJ17, LYL⁺11, LGCL21, MW01, MW13, MDM15, MS20, NK15, NJ14, OB21, OA93, OTV19, PZZB15, Pen00, PK19, PCD17, RT10, RWDL19, Ros15, RS99, Ruh98, Saa96, SZ99, SS99, SKO21, Sch19, ST17b, Sco17, ST19, SY10b, SY12, Sun96, SX11, SO18, TCZC19, Tao22, TW03, TB99b, TMM20, TMA23, TTY16, UA04, UA07, VHSP20, VM13, WZ03, WWYX20, WYGZ10, XS17, Xia13, XXdH⁺17, XZ14, Yan94, YSX17, Yin09, YB09, ZGA10, ZTRK14, ZLWZ18, ZZL22, ZSPL21, AS93, AMB⁺94, BZ96, EL93, MH95, MS93b, NP93b, PS93, Rag95, RG94, Rot96, Sch93, MG09]. **Sparse-Approximate-Inverse** [MG09]. **Sparse-Dense** [ST17b, ST19]. **Sparse-Grid** [BvW09]. **Sparse-Sparse** [CS98]. **Sparsification** [APSG14, BFG⁺16, GS18, GWBW22, PCD17]. **Sparsified** [TY15]. **Sparsify** [LY18]. **Sparsity** [ALM19, BZ21, BL08b, CPS20, Cho00]. **Spartan** [Hri05, Hri03]. **Spatial** [AD06, Boz09, CMM⁺07, CLAT10, DTT⁺16, FL19, HDF⁺19, JV96, KKP14, MTM08, Min02, PV08, TP21, WP98, Zim13]. **Spatially** [AK04, BLMR02, CCA03, FUNB18, HTH⁺16, KS19, NO98, NNH99, OB21, OVV17, SM19]. **Spatio** [Yan18]. **Spatio-Parameter** [Yan18]. **Spatiotemporal** [BF16, LC05b]. **SPD** [GRT05, SIS96, Xia21]. **SPDEs** [ZRK15, ZK15, BAS09]. **Special** [Bal00, Ben13, Ben15, Ben17, BD23, Bre17, CVW06, DJM16, Elm98, Elm00, GL18, GW04a, GLR07, JKR08, KY14, MY21, Tum10, TBC⁺11, Vas07, Wan01, Yav19]. **Specific** [Wu21]. **Specification** [UG19]. **Specified** [FH21]. **SPECT** [IJ08]. **Spectra** [ADF⁺19, LW97, Mön08, VR14, XS16, BW93]. **Spectral** [AG18, ACLZ15, BDD⁺97, BT03a, BJM03, BLV17, BGL⁺21, BSSS23, BS05e, BG98, BMF19, BK00a, BK10, BEKM16, Bjø95, Bla97, Bla98, BIA99, Bru15, BOPGF06, Buv20, CI19, CGQ10, CG99, CR23, CDG03, CGG07, Cas97, CCS97, CFH⁺03, Che05, CCO11, CEO11, CF05, CG07, CGI11, CRV13, DM16, DJT08, DL20a, DAE02, Doh21, DMSC18, DMM19, Du16, FTY15, FMRR13, FS02, FW97,

FM16, GHHH17, GK11a, Gas13, GP99, GM14a, GRT05, GRMS09, GS21, GN22b, GX20, GML⁺21, GMYL23, GN07, HOY03, HMAS17, HN22, HNS08, HL95, HT00, HAN19, HC20a, HCW20, HHSY22, KLV⁺16, KZK17, KRR23, KS19, KBD21, KG14, LM20, LZ17b, LZK17, MS17, MC09, MT19b, MW08b, Mor23, NH13, NN03, Ols07, OTV19, PKD13, PCFN16, Pav98, PZPR07, PWZ10, RS16, SDNL10, She99]. **Spectral** [SY10b, SY12, SWX16, SF08, SJD14, TW12, TWYZ20, TO15, TT06, TLE12, WHL18, WMHK19, WZ22, WG00, XLS18, XSC21, XCS16, XL18, ZKN21, ZK14a, ZK14b, ZCZK14, ZZK15, ZMK17, ZZ16, ZLTA15, vGEV07, vHBTC12, Lie93, MPMR93, Nat95, Nat97, She94, She95, She97, Tan93, BT97]. **Spectral-Galerkin** [DAE02, She99, She94, She95, She97, BT97]. **Spectral/** [ZKN21]. **Spectrally** [BWV15, CBG12, CSZZ20, HO18, JL11, SL20, TXZZ22]. **Spectrum** [AK15, BS06a, CFKM18, GK03, RC23, ZB12, Gut93]. **Speed** [AIP19, CLLY20, DH21, HC20a, DS95b]. **Sphere** [BL07b, CF97, DLTZ06, ES00, FF05, FP07, GPS12, Lay03, LS00, MCB18, MN18, RLM⁺00, TDTF03, TWW16, WL11, Wan13, YCC10]. **Spheres** [EAA21, GJLX16]. **Spherical** [AA00, BLS06, BN00, BCY21, FF05, For95, GSV20a, GV13, JKL22, KMS15, Li99, MK08, Nie16, RT05, She99, TWW16, WTW17, XCLQ20]. **Spherically** [WT16]. **Spike** [TTMA22]. **Spike-Based** [TTMA22]. **Spin** [BL08a, CL18a, CBDW15, TCWW20]. **Spin-** [TCWW20]. **Spin-1** [BL08a]. **Spline** [AGI10, ABP18, BF95, BFK03, BFK05, BF06, Bit99, BB15c, LS00, MS07d, Ng94, Red99, Sun95, TGC94, TV98b, Bia94, HHRV93]. **Splines** [BLS06, HHL07, KH22, LS94, LZ13b, PG22, VHSP20, Woo94, Zha18a, AE95, Gu93]. **Split** [BAFF00, HJMS07, Lee13a, LK15, SW22a]. **Split-Step** [HJMS07]. **Splitting** [AB16a, BA05, BQQ08, BGLY05, BGL06a, BJM03, BS05c, BBC⁺21a, BCC20, BV20, BZ21, BCM11, BCCSS21, CGGGS15, CZK15b, CFSZ08, CS18a, CLST03, CDB13, CJK10, CJ95, DJT08, DMD⁺12, EO15, EO16a, EL18, FKQS17, FZB20, GL22b, GLQ16, GLQ18, GKRB16, HL09, HJZ23, HiH18, KQW04, LL00, LSN17, LTG22, LWW22, RX17, Rim18, RS16, RKW20, Sha21b, Sha03, SSN19, WL97, YHS07, Yun03, MTV16]. **Splittings** [JP95, KS23, MPRW98]. **SPMR** [EG18]. **Spray** [BCM15a]. **Spread** [BNP15, JBL18]. **Spreading** [Ros96]. **Spring** [CJ09, LP03]. **Spring-Mass** [LP03]. **SQP** [PBC05]. **Square** [AKA13a, FCZE14, GGM01, LZ17b, MT97b, RW06]. **Squared** [CCG14a, Gro02]. **Squares** [AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, AS22, ALMR17, AD15, AMT10, BLH02, BGM13, BT03c, BDKR21, BS99b, BW96, BKMM10, BLM03, BMMT14, CLMM00a, CLMM00b, CPV95, Car10, CHP20, COS21, CAS11, CC19, CP17, DMMO04, DMMO05, DG98, DP20, DL23, DMM20, DSS20, EHS⁺07, FMM98, FGHO97, FS11, FNB06, GW17, GI17, GKK15, GNYZ18, HN22, HLMM06, HLM⁺09, HP21, Hok17, HM20b, HY10, HY14, HJLZ18, JR19, KMS15, LSH17, LMMR00, LFB13, Lee14, LM15, LMM17, LRS02, LD11, MWY17, NP14, PE00, PBtTB⁺15, QOQOP99, RDB16, RtTBAI21, ST16b, ST17b, Sco17, ST19, SX16b, SMYS21, Sta00, Str93, TZ14, TLH21, TBO10, WWYX20, Wat98, WPT17, XS16, You94, ZCC⁺16, ZWZ⁺13, ZNX14, dMHJM00, ten95, BR95, Dax93, NP96]. **Squaring** [AMH12, SIDR15]. **Squeezing** [HPZ19]. **SRB** [SW22b]. **Stability** [AD07, AW11, AP93, ACF09, BYK05, BM10a, BM10b, COZ96, CRS⁺18, CH08a, CKLP11, CFM96, CS10c, DJMR23, DSB99, DP07, DHE13, DR13, Dur16, ES18a, ELM21,

FCF14, FDH⁺20, Gug16, HP94, Hig95, HV04, IM97, Ket08, KP07, KEC23, LPR98, LZZ18, LC05b, MP20b, MR02, NH12, OB08, OX22, PDG20, QNNZ19, RP01, Ros15, RX18, Sch05, SZS97, SNB08, Str93, TYZ19, TLH21, WL08, WTG12, ZSB16, ZZ22].

Stability-Corrected [DR13].

Stability-Preserving [Ket08].

Stabilization
[ABD⁺17, ABPW21, BBSW15, BSSW13, BS06b, Bur23, LNP15, LR12, ZHS10].

Stabilizations [JJK23]. **Stabilized**
[AVZ13, AdS22, AGH⁺20, AHN⁺20, ABN21, AV21, BH14a, BM11, BBGS04, BCLT15, BBKT15, BL07b, BRBT12, Bur13, Bur14, BCM15b, CSW14, EHS⁺07, EMNS20, Gar97, Giu22, GSM20, JY21, KS99, LLJF21, NG18, Sch19, SV03, SSF16, ZS02].

Stabilizer [MYZ21]. **Stabilizer-Free** [MYZ21]. **Stabilizing**
[CD06, HiH18, VW98]. **Stable**
[Abg09, AN16, ABP18, ABB⁺04, BN98a, BS05d, BHT11, BDK12, BSU19, CGGGS15, CDC19, CWX15, CYZ17, CLLY20, DM13a, DS16, DKM14b, ERSZ17, FM12, FP07, FLF11, GHMY18, GL22a, GMV99, GZW18, GZW20, HT14b, Hel11, Hes98, HT00, HYW20, HS21, JL11, KG14, KLY19, KWD22, KW16, KM12, LW12a, LO19, LLHF13, LLX15, ILTZ21, MC10, NH13, NS06, OH21, PCFN16, PSC⁺16, PJ96, QNNZ19, RSD⁺20, SBHS19, SWN20, SY14, SXL⁺22, SO09, TKCC13, Wan22, WM05, WS20, YY18, Yan21, ZHY21, ZWWZ21, ZYLW16, ZK15, HG96, Hes97]. **Stack** [SNB16]. **Stack-RLE** [SNB16].

Stackelberg [dCFC20]. **Stage**
[AKK18, BCG⁺10, LD16, MHW22, OS98, SW09, WC23]. **Staggered**
[AT17, ALMT20, GHTW00, GZW18, KZP20, MV09, PCFN16, TPB17, ZP18, ZP20].

Standard [CPW15, FKTW10, Lan19]. **Star** [BF22b, GTMP07, KH22]. **Starting** [YC99].

State [AB19, BD04, BCJ⁺21, Bla03, BK00b, CGP22, CDG⁺09, Day98, DD00, DY23, Elm99, FKQS17, FL02, GLM22, Gär09, GMSB16, HS06b, Haz08b, HLLM15, HYC16, JSPC97, KH14, KLW02, KSW20, KK16, KTSB19, LQH21, LWG10, L XK08, LYZ23, LCY⁺20, MT19a, MV06, NMFP16, OPR23, Pet05, PS12, QS14, RCC18, Str00b, TP18, VBA18, VS17, WG12, ZJB20].

State-Of-the-Art [GMSB16]. **State-Space** [VBA18]. **States**
[BL08a, BR19, DP17, DL22, JSCB20, LC21, TWL21, TCWW20, ZDZ16]. **Static**
[ADGP07, DKL⁺19, GDL07, HH11, JKLZ18, KV20b, SP16, VP14, WW22, ZHL21, ALZ14].

Statically [DHM⁺23]. **Stationary**
[AOS20, CCF14, CRS21, DN97, EAA21, FMW19, FGM08, Gro02, JSCB20, KOSB16, LLP98, LP22, PEC⁺14, RW13, RL13, Sar98, SK05, SSF16]. **Statistic** [CPT05].

Statistical
[BEG⁺08, BF13, BFI07, CPP⁺17, GGK⁺04a, KL94, KLR98, KHKL16, LX08, Lee13a, LWG10, MWBG12, TW96]. **Steady**
[Abg09, AB19, BLH02, BW11, BG05b, BK00b, CC12a, CDG⁺09, DD00, DY23, Elm99, FL02, Gär09, HLLM15, HYC16, Hun96, JSPC97, KLW02, L JL98, LCY⁺20, Pet05, PS12, Str00b, TLN14, Wu99, LK93, MMPR93]. **Steady-State**
[AB19, CDG⁺09, DD00, DY23, Elm99, Gär09, HLLM15, KLW02, LCY⁺20, PS12, Str00b].

Steerable [MMS23]. **Steered** [MPV21].

Stefan [BH11, CBK18]. **Stein** [CG21].

Steiner [EÜ09]. **Steklov** [Nat95, Nat97].

Stellarator [HBJ04]. **Stencil**
[BDM⁺18, BNN23, DRW20, GTK⁺17, KP09a, LGH⁺13, MHL⁺15]. **Stencil-Aware** [LGH⁺13]. **Stencil-CSR** [BNN23]. **Stencils**
[BR18, GV15, IT09b, LLHF13]. **Stenotic** [TY00]. **Step** [AP14, Bar99, BCF13, BFK05, BBC07, CFR05, Cas05, CGK13, CS96, CLST03, CSW10, FR23, GASSS98, GvdV17, GV09, GM11, HS05a, HLW00, HJMS07, HLZ13, Jah04, KR21, KW15, LHL12,

LNP15, MPV21, Mou20, SB13, XZ23, AMN15, CSS93a]. **Step-Sizes** [MPV21]. **Stepping** [AM17, BHL22, CS10b, DHL⁺23, DG09, EJL03, EG22, EG23, GGS08, GMM15, GM15b, GM19b, GML⁺21, JILGZ20, KT05, KGGs10, KR11, Li10, MW22, MN18, ODN17, QZT11, RPSS22, SKWK18, SNB08, TT20, LK93, NW22]. **Steps** [LITZ21, MPV21]. **Stepsize** [BLR99, BB02, DGLL21, KW10a, RW06]. **Stepsizes** [HS97]. **Stepwise** [AdVC00]. **Stewartson** [KR11]. **Stiefel** [BL99]. **Stieltjes** [LN23]. **Stiff** [AC08, AVZ13, AdS22, AV21, BJ01, BQR18, DWQY19, EJL03, GK03, HG98, HR99a, KT05, KW15, KK16, KR12b, LG97, LT14, MN18, ÖB05, RSW10, RSS20, ST22a, JS93, Pem93, Ver94]. **Stiffness** [GMvdV19]. **Stirred** [BK04]. **Stochastic** [AE08, AC08, ACVZ12, AVZ13, AdS22, AB16a, AAO23, ALM22, BCT07, BBP13, BS16b, BLY21, BSX22, BS23a, BPT19, BV16, BRW10, BB02, BLL07, BDW11, BJW18a, CZK15a, CYDK21, CBG⁺19, CCG14b, CHM21, CML⁺18a, CML⁺18b, CVE13, CPB19, DD23, DEN21, DKM14a, DNP⁺04, DTT⁺16, DP16, ES22, EW00, ES19, EFHL09, EPSU09, FS12, FS13, FKRH22, GH15b, GYZ11, GW20, GM98, GLMN15, GHKF22, GKRB16, GM11, GNZC17, GK13, HHS⁺16, HMAS17, HAG17, HWZ19, HJX15, IP06, IT09b, JL03, JCL07, JLP18, KK13, Kaw18, KPS19a, KP21, KS11, KCB17, KHRvBW13, Kue12, KK16, LZG20, LV20, LRD⁺04, LE17, LCD18, LJ17, LST20, LKBJ18, LT12, MS07d, MW08a, Man05, MWBG12, MW03, MEHL16, MNvST13, MT97b, MT06, Mis01, MTV16, MS07e, MS18b, MW16, NX12, NJ14, NGX14]. **Stochastic** [NT18, NCCR22, OKD16, OL98, PW12, PTSA23, PSLG14, PMSG14, PEdD12, PP12b, PSS17, QS08a, RW06, RKvdDA14, RV10, SDNL10, SB13, TLN14, TVA02, TLE12, TCCK18, Ull10, UEE12, UG19, Vil14, WXK04, WGT14, WRB⁺15, WZGO21, WC23, WI12a, WI12b, WFAP15, XK02, YG15, YSX17, YZK20, YTT21, ZRTK12, ZFwCW15, ZBK18, ZGK20, ZCP06, ZFZ14, Zyg11, vdDA12]. **Stochastically** [HGPM14]. **Stockwell** [WO09]. **Stokes** [GHMY18, HLLM15, XZ10, ABD⁺17, AFOQ19, AOS20, ABN21, ABS96, ACL09, AHT17, BMV18, BH00b, BBSW15, BWV15, BBGS04, BDK⁺20, BSSW13, BL07a, BW11, BS15a, Ber97, BLVZ23, BKKM22, BBKW19, BT13, BJP⁺22, BT22, BCM15b, CLMM00b, CW07, CHL20, CGP12, CMS17, CP13, CLS16, CST16, DG98, DLTZ05, DS17, DHE13, EAOS21, ES96, Elm99, EHS⁺07, Ena97, FMW19, FF05, FGM08, GH13, GNOR14, GK18, GP99, GRL10, GRS⁺15, GHST98, GW98, GK98, GO09, GLOR16, GM15b, GM19b, GZ19, HSB20, HNU23, HG96, Hes97, Hes98, HLM⁺09, HBS00, HQH⁺16, ISG15, JL11, JVG12, JK05, JK00, KS99, KLW02, KL05, KW07, KGGs10, KL06, KL10, KZP20, KGR16, KR22, KOV15, KBG18, LW12a, LHL12, LLP98, LL97, LL03a, LM20, LRV22, LL00, LP22, LZ23, LCW95, LLL08, LRT11, LBHH22, LY22]. **Stokes** [LKBJ18, Lui01, LRGO17, MPMR93, MP20b, MP08, MS18a, Mu20, MYZ21, NSK10, Not17, OR02, OQRY18, OKGG⁺23, PCFN16, Pav98, PT01, PP08b, PRR05, PM95, PS12, RSD⁺20, RX17, RW11, RG09, RW22, RSG17, SS98, SWT00, hSSW23, Sma01, SSF16, SU15, SS95, TLN14, TLLK09, TP09, TC99, VY09, WWY09, WWY11, YSZ14, Zha22b, dVL10]. **Stokes-Type** [GO09]. **Stokeslet** [GCS19]. **Stokeslets** [Cor01]. **Stopping** [AGL13, BHvST14, BR05b, CPP⁺17, EV13, FS08, GCG⁺19, JSV10, Mar01, ZG23]. **Storage** [CF07, CC18, Ket08, KMSM14, LW14, RY03, RLG98, War13, WM11]. **Strain** [CEP20]. **Strang** [BV20, SSN19]. **Strassen** [HMvdG18]. **Strata** [SK23]. **Strategies**

[AGSZ16, BW01, Cha18, CML⁺18a, CML⁺18b, GS97, HSCTP04, LCK21, MS07b, MOKS12, May05, MM95, MMV98, RWW14, SvG10a, Wab05, WZ03, vdVY00, Wat94].

Strategy [ACD23, CGDD11, DTY20, DCB22, DMD⁺12, HR99c, HGPM14, MS07a, OST11, Pir16, QZT11, RPSS22, TP18, VVM12, dDBV14, vdHCDD15]. **Stratified**

[GLSTV16, LLS19, SK23]. **Stream** [AHH12, BJP⁺22, GV16, Kup01, PM95].

Stream-Tube [AHH12]. **Streaming** [Kös07, SCM10, TYUC19]. **Streamline** [AKM14b, LR12]. **Street** [MDA22].

Strengthened [LLZ09]. **Stress** [Del14, GP99, Min02, Rei20]. **Stresses** [Nie16]. **Stretching** [DR13, ST19]. **Strictly** [KY19a, KLLY20, Mor23]. **String** [WS07].

Strip [QSV06]. **Strips** [Coa12]. **Strong** [BCK16, CCL⁺20, CS10c, GE96, KM11, Ket08, Sch18, WGT14].

Strong-Stability-Preserving [CS10c]. **Strongly**

[MRB23, MSM14, WYT18, ZS23, vD03].

Structural [BTB05, BT00b, CTB15, RMB00, SP02, Smi97, EL93]. **Structurally** [HK00, NPS22]. **Structure**

[AH17, AFS19, ACF09, AY23, BQQ08, BC10, BB15a, BM17b, BCK16, BKFG19, CHV⁺18, CDKL22, CTB15, CBG16, CRS20, CDFQ11, DLZZ17, DLY14, DJP00, DMM20, DCL⁺21, EKLS⁺18, FUNB18, GSV20a, HHZ22, HMLH18, HLM03, Hwa07, Jay98, KV05, KPPS14, KSV16, LQR12, LWYxY18, LNC05, LYL⁺11, L XK08, MKWG15, MW01, MTM08, NV08, PE00, Pel18, PVV11, PSC18, RW13, Rub12, SM17, SOTB21, TLLL23, TMM20, WMUZ13, WQX20, WX21, ZKN20, ZKN21, ZZWZ14, ZMS21, ZWWZ21, ZZZ21, ZVF18, vBdB05].

Structure-Exploiting [ZMS21].

Structure-Preserving [CBG16, CRS20, DCL⁺21, EKLS⁺18, HMLH18, HLM03, MW01, WQX20, WX21, ZKN20, ZKN21, ZWWZ21, BM17b].

Structured

[BKS16b, BD05, CCY23, CDY07b, CJ99, CX08, DL23, EZ11, FNB06, GLR⁺16, GvR22, GNL14, GG03, HHZ22, HG12, HJL⁺19, KKT13, KKS13, KKF11, KS11, Kim08, LE10, LYL⁺11, LXdH16, Mar16, MMR19, OX22, PS11b, RKLN07, ROM18, Ros15, SR18, SV23, SWX16, VM13, VXCB16, Xia13, XXdH⁺17, ZJC12, ZWZ⁺13, Zie12].

Structures

[Beu05, BKFG19, BFP22, GGM01, GMPZ06, IS17, RAB⁺14, RC06, Saa03, SSW12, SM18, TW96, WLX⁺13, YPN⁺01, ZTK19].

Studies [BBP13, BBKK97, DMM⁺16, RLG98, YTD15, ZD09]. **Study**

[APS12, AHT12, ACD95, BJM03, BK04, BCR99, CHR99, CGAD95, CHKM13, CFKM18, DARG13, DLV17, EP06, FMOS17, GK00, GLT18, GMSB16, GRT05, GK05, GDB⁺22, JLYZ23, KB08, KKZ17, Kup98, LZ04, OL98, Pic10, PABG11, PQR20, Ros05b, Ste01, WH15, YYWY18]. **Studying** [EW00]. **Sturm**

[AF15, Bou01, LV10, ZAK15]. **Style**

[FSvdV98b, ZK14c]. **subcube** [CG93].

Subdeterminants [IMS96]. **Subdiffusion** [CLAT10, CSZZ20, HZ22, WZ21b, ZLLT13, ZLLT15]. **Subdivision** [CWD13, HOY03, KKT19].

Subdivision-Based [KKT19].

Subdomains [CS12, DGK23]. **Subgrid** [MP20b]. **Subgridscale** [Lay96].

Subiteration [vBdB05]. **Subject** [GLL⁺15, LX12, LQX14, AE95]. **Sublinear** [VL10]. **Submatrix** [YPHH17].

Subproblem [ZS18]. **Subproblems** [HD15].

Subset [CBCR14, VBA18]. **Subsonic** [BS18a]. **Subspace** [AMV22, BM01a,

BKT21, Bot23, BCL99, CKD13, CCSY98, CPS11, CCA20, CS14, CDW14a, CDW14b, DLY17, DLZ10, EEO01, GY02, GOS12a, GWBW22, Gu15, HL18, KdS05, KWG⁺20, KSU14, LMRS15, LLWxY20, Lin16, LWZ13, LR98, Mou20, NG18, OW00, PS02, SSM16,

SW01, SS03, Soo16, Sta97, VP11, Wal99, WYGZ10, XXZ20, ZYSL15, ZMD22, vNLB04, vdVY00, Wei94].

Subspace-Based [KWG⁺20]. **Subspaces** [BDF08, CKBT16, DDF00, DTR21, DKZ09, GW17, GT19, KA95, LZMW20, PdSM⁺06, RPM23, XKZ95]. **Substantial** [CD15b].

Substructuring [BL04b, Doh03, HS99b, HZ16, KXS18, KR12a, Sta97, YGB⁺05, Smi93].

Subsurface [FK97, Sta00]. **Subtensor** [EGLS21]. **Subtraction** [EVLW17, WKM⁺07]. **Subvector** [HS17].

Successive [GB98, HDOS23, Mit08, WZ03, YJ13].

Suite [SR97]. **Sum** [ACO98, ACCO00, ERL22, ORO05, dMHJM00].

Sum-of-Squares [dMHJM00]. **Summation** [AWW19, And99, BC02, BHM20, BZ15, CWA14, DZ15, DH03, HZ11, HDZ16, McL12, Nie06, NN18, NL16, ODN17, PS03, ROO08a, ROO08b, Rum09, ZYZ05, ZH09, Hig93].

Summation-By-Parts [BZ15, HZ11, NL16, AWW19, DZ15, HDZ16, NN18, ODN17].

Summations [MXYB16]. **Sums** [BGM09, HMAS17, KW11, PPT11, dBMZ11].

Super [Gos12b, Jay98].

Super-characteristic [Gos12b].

Superalgebraic [BH07]. **Superblock** [CWC08]. **Supercharging** [AMT10].

Supercompact [BW00]. **Supercomputer** [HRR23, Kor93]. **Superconductors** [DG99].

Superconvergence [DK98, HXB11, MYZ21, WCHZ14, Yam02, ZN05, ZZ16].

Superconvergent [BFK05, EM99, HZ11, LD03, PJ96, VC00].

SuperDC [OX22]. **Superfast** [OX22, VXC16]. **SuperGlue** [Til15].

Superior [Yan19]. **Superlinear** [CDH98, GJS19]. **supernodal** [NP93a].

Supernodes [JFG15]. **Superoptimal** [DEC05]. **Superparallel** [MK93].

Superposition [Gar00]. **Supersensitivity** [GK00]. **supersonic** [LL94]. **Supervised** [DTR21].

Supply [CPR11, FGH⁺08].

Support [COS06, EZ11, XAW17].

Supported [Pla15]. **Surface** [AKS05, AHH06, ADM⁺15, BN98a, BL23a, BN21, BJP⁺22, BTGH12, CL18b, CH09a, CFM96, DFS17, DGP10, DQ22, DFW22, GL22b, GPK04, GGK04b, HA08, JKL22, KCZ15, Kös07, LTC13, LL97, Li03, LCL18, LLZW19, LTG22, LH19, MG11, MCT⁺05, MT99, OQRY18, RS13, SV08b, SO09, TK13, WkZ15]. **Surfaces** [Bea20, BB09, BBK06, Bru18, CW13, CW14, CM15, CW16c, CL18c, CDW14a, CDW14b, DPF15, DP07, DGJ03, DKS21b, Far01, FJP⁺11, Gra14, KTB14, KBK⁺08, LZ17a, LSW17, MR09, NNRW09, OX17, PHA18, QZZ19, Ren15, Say15, SKF18, VZA⁺23, WJS23, YH17, YH19, Zha18b, Atk94, RN95].

Surfactant [GX20, Yan21]. **Surrogate** [CBG⁺19, CGDD11, DKW19, HKO⁺23, LX14, RPSS22, RS13, vdHCDD15].

Surrogates [LM14a, YGCP96]. **SVD** [BP97b, CL21, Hoc01, HJ19, NH13, Nov15, OT09, RZTB22, SDNC20, VW94, WS15, WRS17]. **SVD-Based** [VW94]. **SVD-Like** [CL21]. **Sweep** [LY18]. **Sweeping** [ALZ14, BMR10, GLQ16, LY16, Luo19, PELY13, ZCL⁺11]. **Swelling** [WFA15].

Swimmers [GHK14]. **Switched** [GPA18].

Switching [HFL11, KL00b]. **SwitchNet** [KY19b]. **Sylvester** [BDP96, ST16a].

Symbolic [GDL07, HS18, MBM⁺16].

Symbols [JF16]. **Symm** [CP05].

Symmetric [ARMNW10, ADKM03, ARS21, AJ22b, AH04, AT15, BBP21, BF01, BOR97, BGM13, BM12, BDvdG05, BS96b, BORTP19, ÇAK11, CCS98, CMS17, CPS11, DLP05, DMPV08, DJLZ96, ERSZ17, FEM08, FS08, GPP95, GWMG03, Gas13, GY02, HS06a, Hag02, HLD12, HJS99, HP21, JFG10, JLY08, Kal20, KS18, KSU14, KKR21, LM20, LZ99b, LS13b, LSS03, MV00, MM19, MRV06, MB99, May08, McL95, MDM15, MO21, NH13,

Nat98, Ng00, Oet99, PS18, SLvdGK14, SK05, SDH21, SO18, TD99, VK13, VSS14, WT16, WXS19, XYGO01, ZLG98, FS96, Lan93, LL93, LZ94, MS93b, Tre97, WM93, YL93].

Symmetrically [BCCSS21]. **Symmetries** [MS18b, ALT93]. **Symmetrization** [WS20]. **Symmetrized** [BL23a, HJN17]. **Symmetry** [BV19, CCSY98, DF21, MMT15, MRB23, SLvdGK14, SA97, TGPK23, EL93, WAS94]. **Symmetry-Preserving** [BV19].

SYMMLQ [Dul98]. **Symplectic** [BCF01, Ben01, BCR99, BGH23, DSL21, KLS⁺15, Man05, McL07, MMVW13, PM16, SZS97, CSS93a, CSS93b, LMSSS97].

Symplecticity [LXL11].

Symplecticity-Preserving [LXL11].

SympOCnet [MZDK22]. **Synchronization** [AD07]. **Synchronous** [AKBM21].

Synthetic [HSMT20, SZW20]. **System** [AK09, AMMR10, AMM⁺10, AMM⁺11, ABM⁺13, AV14, AHN⁺20, ALMR17, ABP18, BCCI98, BS05d, BDZ13, BS18a, BQRX22, BLM03, CCM05, CLMM00a, CLMM00b, CLPS03, CLP08, CLS16, CF05, CGI11, DY06, DLV17, EGKS94, FV06, FMM98, GH18, Gär09, GM20, GX20, GMYL23, Hig95, HYW20, KRW20, Kim08, KLJ10, KR22, KG18, LMMR00, LMM17, LCJ⁺20, LBHH22, LRGO17, LC23, MCL19, MKSG10, MR01, MPS09, PS08, PKS21, Rav02, Rav05, RGG06, Sch05, SBND11, SV11, TKCC13, TLLL23, UWWP23, WS95, XBC96, YGS⁺21, YCY19, ZGA10, ZLZ22, ZCQQ21, ZGG17, BK14, McG95].

Systematic [AJ22a, HTH⁺16, SvdGP16, XW05].

Systems [AH18, AM04, AKK14, AH17, ADP20, AGI16, AH09, AKPRB08, AKT16, AR99, AL99b, ATK12, AK04, ACW21, BGLY05, BS05a, BW18, BW21, BKL⁺17, BK98, BK99, BPR04, BvG15, BB08a, BM01a, BDdSM11, BBM11, BGM13, BCF01, BSSW13, BG21, BM95a, BT98, Ber00a, BBF⁺22, BPR99, BFN17, BL07b, BCP15, BB03, BR09, BPR13, BBD18, BPT19, BS96b, Boz09, Bre99, BC99, BHP98, BCMM03, BC08, BC09b, BK11, BS23b, BGH23, BTWG08, BGL06b, BEPW98, BORTP19, CS99, CL18b, CWY23, CGL⁺13, CSS10, CB98, CR23, CGG07, CJH11, CdSG21, CH17, CH18, Cas05, CPPR12, CDF18a, CS96, CCS98, CN99, CBG16, Che98, CRS20, CLB21, CSP11, CDY07b, CBG⁺19, CBDW15, CW12, CVE13, CE16, CPD17, CD06, DD23, DM13a, DLY14, DB98, DH01, DRFNP07, DB94, DKXS18, DS14].

Systems [DGSW10, DCB22, DQ22, DTT⁺16, DHZ⁺21, DLP⁺21, Elm98, Elm00, Ema10, Ett16, Fan22, FHFR19, FSvdV98a, FT03, FDE⁺06, FG98, GJLX16, GKS20, GDLS14, GM21, GGOY02, GNL14, GRT05, GRS⁺15, GR04, GW98, GG03, GSW17, GG05, GPA18, GGB22, GKK10, GV98, Gri94, GPS95, GN23, GLMS22, GPSY17, GSW13, GW00, GML⁺21, HR05, HN19, HS06a, Hag00, HTMM15, Har11, HJ07, HSS08, Her08, HS17, HZ10, HP94, HHW00, HPZ19, HP21, HG12, HLS98, HID23, HEGH14, HZ16, HL17, HS21, HSCTP04, JFG10, JZ13, JSZ22, JW05, JWH08, JLXZ21, Jou94, KGM⁺08, Kas95, KP12a, Kea97, KLR98, KBK⁺08, KPL13, KSB11, KMR01, Kof04, KSV16, KNV⁺16, KK16, KPW17, Lab05, LM00, LV98, LL22, LV13, LW19a, LNP⁺07, LSU11, Lee09, LM15, LS16b, LPR02, LN05, LPR98, LW16, LSN17].

Systems [LXZ20, LN03, LXdh16, LLS22c, LWW22, LSZ23, LMMW04, LNA⁺11, MFJ19, MM19, MB02, MRT00, MPW18, MHW22, MSM14, Meu11, MW13, MC05, MO21, Moo00, MS18b, MGW00, NN17, Nat98, NP08, NSJ03, NFFP18, NM13, OD12, OPR22, OPR23, PNW16, PdSM⁺06, PW15, PM16, PVK16, PVC17, PW98, Pet99a, PG22, DHM⁺23, PH16, PS01, PN19, QCJX21, Rah96, RG07, Rei21, RVA17, RSW10, RSS20, RPSS22, RBG23, RM08a, RT99,

RKW20, SZ99, SS99, SBK13, ST08, ST17a, ST14b, SHP07, SE11, SG95, SW22a, Sma04, Smi97, SG04, SvG08, Soo16, SC98, Sta94, SO10, Sun95, TCZC19, TTSM08, TT07, Ton94, Tor12, TMA23, TS14, VC00, VM13, VFGS23, VK13, VSS14, VTD12, WZ21a, WLX⁺13, WC22, WTWB09, WSH14, WJS23, WG19, WQX20, XS17, Xu04, Yan94]. **Systems** [YDF97, YP98, YLG22, YWL17, Zha97, dDBV14, dSL05, dSO21, AS93, AM95, AP93, BHP94, CGP93, CN93, CT94, CGS⁺94, CC96, CW97, CMV97, Fre93, Gre93, JS93, LW22b, Yav93]. **systolic** [BPT93].

Tables [CWG10, GBS19]. **Tabulated** [CGP22]. **Tackled** [KRW20]. **Tackling** [KSD10]. **Tail** [GSS12, IM98, WY19]. **Tailed** [CHL16a]. **Tailored** [TP21]. **Taking** [MM98]. **Taksar** [DS96]. **Tall** [CGHT14]. **Tangent** [ZZ04, ZS14]. **Tangential** [MRSS14]. **Tangentially** [BM11]. **Target** [DKK⁺19, HWS05]. **Target-Matrix** [DKK⁺19]. **TAS** [CFKM18]. **Task** [ABC⁺14, BCK22, GKM⁺17, MDM15, Til15, YS16]. **Task-Based** [ABC⁺14, Til15, GKM⁺17]. **Task-Scheduling** [MDM15]. **Tasking** [CHW20]. **Taxonomy** [BBGS04]. **Taylor** [AM18, Bar05, Hei13, Kup98, SIDR15]. **Tearing** [LOSZ07]. **Technique** [ABKS16, Bla97, BEOR17, BEPW98, CL03, CFH19, DS97, GG19a, HHLS15, HHMDC18, LNS96, NNH99, OB21, OGO16, OVV17, PQR20, RSA05, SP03, WiOH08, WZSL12, WZ19, Yun03, PSB⁺06]. **Techniques** [ATWK19a, ATWK19b, ATWK20, APvDG12, ADH99, AB16b, BRR18, BvW09, CDGS05, CP05, CP07, CBS00, CDGT01, DS00, EF15, FBF15, GS98b, GG10, HKL⁺22, HW01, HM14, JFG13, KTB14, KMR01, KM98, Lan10, LU17, LKK18, MT22, MMV98, MFPG18, PKNS14, PABG11, PR22, Pla98, SS99, SBR06, hSSW23, SW03,

SF08, SFM20, Toi96, WB08a, XSC21, YHC16, ZW94, ADRS95, CS97, Di 95].

Teko [CST16]. **Temperature** [Don06, RJLW20, SMZ18, YCY19].

Tempered [GLW18, GZT⁺19, HP14, ZAK15, ZK15].

Templates [Dar21, IHTR12]. **Temporal** [Ber95b, BRK16, FL19, GS16, LL00,

MKWG15]. **Tension**

[BN98a, LL97, MCT⁺05, SO09]. **Tensor**

[ABB22, ABC⁺23, ACG20, BS03, BS07, BG14, BKK18, BKK⁺21, Beu05, BAS09, BEKM16, BHL⁺20, BKS16b, BS99b, BDS20, CQZ17, CRO23, De 12a, DM13b, DH16, DKO12, DP19, DKK21, DKS23, DF21, EGLS21, ERL22, FHL⁺23, FF05, FEM08, FJHM19, GNL14, GOS12a, dMGF17, GKK15, HJ18a, HRS12, HMvdG18, JMR17, JML22, KOB20, KKT13, KKS13, KK09, KKF11, KS11, Kor15, KSU14, KSV16, LT21, LGC⁺23, LS00, MMRN15, MSL13, Mat18, MBM⁺16, MKB22, NRO22, OT11, Ose11, OSS22, PK19, RO15a, Rak21, RDB16, SRT23, SDH21, Ste16, VMV15, VS17, VDD19, WSX17, ZCK12].

Tensor-Structured

[GNL14, KKT13, KKS13, KKF11, KS11].

Tensor-Train [ABC⁺23, BEKM16, NRO22, Ose11, SRT23, VS17]. **Tensors**

[ACG20, BK07, BK16, CCQ16, DGP18, GU17, GMS21, KU18, KP17, RZTB22, SL10, SLvdGK14, ZBdAF20]. **Tent** [GSW17].

Term [AGH00, DD23, FN94, Fu21, GvdV17, HS97, Kla98b, Kla98c, PPS22, RG98,

Wan07a, ZTM⁺16]. **Termination**

[FL08, KMT98]. **Terms**

[BBK21, BKK⁺21, BBF⁺22, CGK13, HR99a, JW05, Nak98, Win06, EW96]. **Tessellation**

[BGL06b]. **Tessellation-Based** [BGL06b].

Tessellations [DGJ03, DW05b, GCN21].

Test

[CPT05, Han95, JL03, JL05a, Lin06, LW03].

Testing [WRB⁺15]. **Tests** [LSW02].

Tether [TP09]. **Tetrahedra**

[AJ21, Ber00b, DK98, PC98]. **Tetrahedral** [AMP00, Ber98b, BH16, CC11, FKW13, GMvdV18, GMvdV19, GR05b, HT00, JHJ12, LJ95]. **Tetrahedralization** [Wal13]. **Tetrahedron** [Ong94]. **Textbook** [BSA13, KR22]. **Texture** [BEG⁺08]. **Textured** [GL22b]. **th** [PP12b]. **Their** [CH02, DW05b, GK03, GPS12, LS94, LL00, MC94, PP13, Sch18, ST00, CC96, DG95, DG99, GM00b, SHP07, WTS94]. **Themes** [DJM16, KY14]. **Theorems** [ET01, LV98]. **Theoretic** [BGMW17]. **Theoretical** [BTLZN22, CGAD95, DMM19, Wan07a, Ber97]. **Theories** [HSF07]. **Theory** [AG18, BGL08, BEG⁺08, BM10a, BH07, CXY10, CFM96, CDW14a, CDW14b, DKPS17, FGMP14b, FCF14, GHKL22, HJN17, HDZ16, KKP14, KY19a, LW12b, LY13, NKLW94, Rub12, RCLO18, SS03, TYZ19, UWY⁺15, VO19, WL13, dSL05, CW93, ED95]. **Theory-Based** [KKP14]. **Therapy** [CDM⁺13]. **There** [GL21]. **Thermal** [BST08, DSB99, HM18, MR04, PKR⁺13, Rav02, WFG⁺20]. **Thermally** [IR98]. **Thermo** [ABB23]. **Thermo-poroelastic** [ABB23]. **Thermoacoustic** [CK07]. **Thermodynamic** [BHV05]. **Thermodynamically** [BDPR22, GZW20]. **Thermodynamics** [YS16]. **Thermostats** [LS16b]. **Theta** [HRR23]. **Thick** [Lee10a, LXV⁺16, MvdM21, SSW98, WXS19, ZVF18]. **Thick-Restart** [LXV⁺16, WXS19]. **Thin** [AA00, BKFG19, CWY23, JLZ16a, KWW13, LS94, Lee10a, LS12b, SM18, ZWWZ21]. **Thin-Walled** [BKFG19]. **Third** [ABMR11, AS06, BBMZ20, Cao07, KL00a, LY14, SC02]. **Third-Order** [BBMZ20, KL00a]. **Thomas** [Ain07]. **Thousands** [BT03b]. **Thread** [Nov23]. **Thread-Parallel** [Nov23]. **Three** [AILP07, AA02, Aru12, ASS16, BL23a, BBSW94, BBKT15, BGPS21, Beu05, BZ21, BBC07, BMMR03, BKS13, BK20, BCM15b, CH18, CHP20, CCL⁺20, CD20, CJ95, CGM00b, DK03, EZ11, EdDP09, FK00b, GJ08, GKC13, GGL⁺98, GGLT00, GB06b, GV98, GM96, HHMS15, HM98, HT17, HRT03, HKKR19, HKLW21, HRR23, HRT13, HC98, HSW08, Hun95, Hun96, HGPM14, Joe95, KL10, KR06, KKR16, KS15a, KWG⁺20, LCA08, Leh15, Lem16, LY16, LCY⁺20, MV09, MLL13, MZ94, MMN00, Moo00, NKLW94, NMAB11, Ong97, PV08, PWZ10, Pek12, Pet99b, PP13, PM15, Rak21, RR98, RG98, RWWK15, RDP08, Sch02, SWB16, Sha12, SWT00, TLLL23, Tsy99, Tu07, Ush01, WO98, Wen10, WO01, WZ15, XW05, YCY19, ZW03, ZJB20, Cai93, ED95, HZXC16, Smi93, SS93b]. **Three-Dimensional** [AILP07, Aru12, ASS16, BBSW94, BK20, CJ95, CGM00b, EdDP09, GJ08, GKC13, GGL⁺98, GB06b, GV98, HHMS15, HM98, HRT03, HRT13, HC98, HSW08, Hun95, Hun96, Joe95, KL10, KR06, KS15a, KWG⁺20, LCA08, Lem16, LY16, MV09, MZ94, MMN00, NKLW94, NMAB11, Pet99b, PP13, PM15, Rak21, RDP08, Sch02, SWB16, TLLL23, Tsy99, Ush01, WO98, XW05, HZXC16, ED95]. **three-factored** [SS93b]. **Three-Field** [BBKT15, RWWK15, BGPS21]. **Three-Grid** [WO01]. **Three-Level** [HRR23, Tu07]. **Three-Operator** [BZ21]. **Three-Precision** [CHP20]. **Three-Temperature** [YCY19]. **Three-Term** [RG98]. **Threshold** [ACD18, DHL20, MOKS12]. **Threshold-based** [MOKS12]. **Thresholding** [dMGF17, LLS22b, TW13a, ZSPL21]. **Through-Casing** [PDTVM08]. **Tide** [CKM23]. **TIGER** [Wal13]. **Tight** [DS20]. **Tikhonov** [CR04, CP15b, FM99, GN14, GG18, IJT11, KHE07, LFB13, O'L01, TY08]. **Tile** [HLD12]. **Tiling** [GVP06, ZAD⁺16]. **Tilted** [BG11]. **Time** [AM17, And16, AA02, ATK12, AM05, BO17,

BCAG22, BJM03, BS05c, BB10, BLR99, BBH18, BF13, BBKS20, BS15a, BHNPR07, BCJ⁺21, BCM11, BFS16, BZ15, BN13, BBC07, BBT11, BV16, BCCX21, BDG20, BHL22, BT19, CGGGS15, CB98, CDG17, CZK15b, CCG14a, CEJ⁺10, CBHB19, CFR05, CGAD95, CCM08, CGK13, CGG⁺14, CFKM18, CHL06, CWZ07, CC19, CCA20, CIZ18, CCH15, CS10b, CDGT01, CE17, DD23, DM13a, DSW22, DD13, DJT08, DL20a, DHL⁺23, DLM16, DG09, DKPS17, DCB22, DEP11, DSZ13, DMD⁺12, DB07, DGvdZ18, EDGL12, E JL03, EG22, EG23, FFK⁺14, FMOS17, FTY15, FR23, FDE⁺06, GV07a, GJSZ13, GN16, GHRR19, GLRS23, GDLS14, GASSS98, GR17, GvdV17, GC16a, GNS22, Gob08, GM19a, GKRB16, GGS08, GLOR16, GMM15, GV09, GM15b, GM19b, GZ19, GC17b, GML⁺21, GW04b). **Time** [GM04, HSF23, HS05a, HW14a, HLP23, HJ18b, HR98a, HHR23, HP20, HT16, HSN⁺20, HLNS19, HL19, HCHS13, Hor10, HX21, HRvdZ22, HDF⁺19, HY14, HZ22, HLY13, HPS22, ISS19, Jah04, JV96, JILGZ20, JSZ13, JZ00, KM97, KT05, KGGs10, KR11, KLN20, KL12, KBG18, KM19, KS14, KRS21, KK16, KTSB19, KL00b, LZ21a, LSTY21, LMM18, LDS11, Li10, LD16, LWZ17, LSC18, LSYY21, ILTZ21, LLL08, LM14c, LH00, LX16b, LH19, Luo19, LX16c, MCL19, MGB18, MO00, ML11, MW22, MZ94, MN18, MSV00, MNZ15, NT18, NS19, NW22, Nor07, NL16, ODN17, PNW16, PR01, PS10a, PKR⁺13, Pat97, PHW19, PGW17, PL12, PTSA23, PvdVvG17, PS19b, PP12b, PMSB12, QZT11, QS03, RMR15, RPK18, Rav05, RL10, RZ03, RMC12, RSS20, RPSS22, RW01, RMD08, RSSZ08, RWX07, STCK21]. **Time** [SYZO15, SStM23, SKWK18, SE11, SSR21, SKPD22, SKP22, SNB08, DFK23, Sto21, SB15, SSN19, SW10b, TW05, TYZ19, TT20, Tie18, Tou22, TPW09, TH17, VFGS23, WZ21a, WMOZ22, WL20, WZ21b, XCS16, XZ23, YTLI11, YBM⁺18, YWG21, ZK14a, ZLLT13, ZK14c, ZLLT15, ZCW10, ZGK20, Zim14, vdVXX19, BC09a, CHO12, CFM96, CCG14b, EKSW15, FMB13, GS98a, GOV06, HP14, HV95, Kye12, LK93, Leh15, LW22b, SV08a, WGT14, Yan14, Yu01, ZLTA15, MMT15]. **Time-** [ZK14a]. **Time-Accuracy-Size** [CFKM18]. **Time-Accurate** [LD16, Zim14]. **Time-Changed** [ZK14c]. **Time-Decoupled** [KS14]. **Time-Dependent** [ATK12, BFS16, BCCX21, CB98, CCG14a, CCA20, CIZ18, DL20a, GLOR16, GC17b, HJ18b, ISS19, LH00, Luo19, MCL19, ML11, PNW16, RPK18, RZ03, RSSZ08, RWX07, SE11, SSN19, XCS16, ZCW10, ZGK20, Nor07]. **Time-Domain** [CHL06, DSZ13, HLY13, JZ00, PGW17, RW01, Sto21, YBM⁺18]. **Time-Fractional** [GR17, HZ22, JILGZ20, LMM18, LWZ17, LX16c, TYZ19, ZLLT13, ZLLT15]. **Time-Harmonic** [AA02, BCAG22, BB10, BHNPR07, BDG20, CWZ07, EDGL12, HP20, HY14, LH19, PL12, RL10, YWG21, LX16b]. **Time-Implicit** [vdVXX19]. **Time-Integration** [DEP11, GV07a]. **Time-Marching** [BZ15, KM97]. **Time-Parallel** [GV07a, NS19]. **Time-Parallelization** [PTSA23]. **Time-Periodic** [GJSZ13, KL12, KRS21, PMSB12]. **Time-Reversible** [BLR99, KL00b]. **Time-Scale** [PHW19]. **Time-Space** [YTLI11]. **Time-Splitting** [BJM03, BS05c, CGGGS15, CZK15b]. **Time-Step** [CFR05]. **Time-Step-Size-Independent** [BBC07]. **Time-Stepping** [AM17, DHL⁺23, E JL03, GGS08, GMM15, JILGZ20, KT05, KGGs10, KR11, MN18, QZT11, RPSS22, TT20]. **Time/Space** [GZ19]. **Timely** [BT97, Cas97, Den97b, SA97]. **Times** [Rei20, PKNS14, RF10]. **Timestep** [SMN10]. **Timestepping**

[FS22, GB06a, HS06b, JL03, JL05a]. **Tissue** [PVV11]. **Tissues** [DLM16]. **Titanium** [GY06]. **Toda** [Nak98]. **Toeplitz** [BW93, CN93, CT94, CC96, CCS98, Di 95, Di 97, EK10, FS96, HO96a, HSCTP04, Jin95, KKT13, LPS10, LNC05, MV00, MB99, Nag93, Ng00, NSJ03, NP10, NP14, NCV06, PKNS14, PE00, PS01, Tre93, Tre97, VD23]. **Toeplitz-circulant** [CC96]. **Toeplitz-plus-band** [CN93]. **Toeplitz-plus-Diagonal** [NP10]. **Tolerant** [AG17b, AG17a, HHLS15]. **Tomographic** [ADLW19]. **Tomography** [BU15, BTLZN22, CHH19, CILZ15, CK07, GJ21, HKK⁺13, HHMS15, HAN19, HCHY23, HTH⁺16, HM18, IJ08, KdS05, KLN20, KLS08, LQH21, OKdSG17, RBH06, SBK13, SKMF15, TH17, WB08a, WPL⁺13, dSK11, vdDA12]. **Tomosynthesis** [BNFS13]. **Tool** [BA05, EKSS16, VR14]. **Toolbox** [Wal18, MRK20]. **Toolkit** [LNA⁺11]. **Tools** [KMA⁺12]. **Tooth** [RK07]. **Topographic** [GH14]. **Topography** [BCCX21, DQ22, GN07, KLLM22, Liu20, MSS12]. **Topological** [BRZ14, BB09, KLST06]. **Topology** [BK20, CWD13, GHHK15, HNU23, IS17, KLT16, KM16, PFS21, VHSP20, WB08a]. **Tori** [DB94, HKM97]. **Toroidal** [SLO13]. **Torso** [WiOH08]. **Torus** [GPS12, HW94]. **Torus-Wrap** [HW94]. **Total** [BKMRB21, CGM99, CMM00, CT03, CC03, CLNZ16, DL23, DF03, FGHO97, FNB06, GY05, GY09, HS06d, LFB13, LN17, MF06, NWW10, RKW20, VO96, WBFA09, ZWZ⁺13]. **Total-variation** [NWW10]. **Tournament** [GCD18]. **Trace** [Che16, FKRH22, GSO17, KNV⁺16, LS20, OX17, SMZ18, SLO13, SSR⁺22]. **Tracer** [BBG⁺19]. **Traces** [ZND18]. **Tracking** [AFOQ19, BLGL11, CL97, Dk00, DL20b, GT98, GBCT10, GGL⁺98, GST⁺99, GGLT00, GGZ02, GM13, HC95, Hwa07, LS95, NKM10, TVV20, ZF14, Zha18a]. **Trade** [SE13]. **Trade-Off** [SE13]. **Traffic** [BCV13, GPZ17, HK03, HPS06]. **Train** [ABB22, ABC⁺23, ACG20, BEKM16, CRO23, DKO12, DKS23, DF21, GKK15, HRS12, Kor15, LWK⁺16, NRO22, OT11, Ose11, SRT23, VS17]. **Train/Quantized** [DKO12]. **Training** [AS21, AS22, KK23, LMRS21, NCCR22, SM19, ST23, Zim13, SBC93]. **Trains** [ERL22]. **Trajectories** [LLS22a, OPR22, Van95]. **Trajectory** [BPT19, EKM94, EHW00, SW22b, WG12, WQX20]. **Trajectory-Driven** [SW22b]. **Transcription** [PR09]. **Transfer** [ACL09, BK98, BK99, BW01, EAS08, GP18, HRT10, HHE10, JLY08, KP22, KZ16, Men22, PKR⁺13, PNP13, RBH06, RM08a, SKN19, TWZ21, Xu99, YCS16, ZHQ20]. **Transferring** [GR04]. **Transform** [AdWR17, AMVR17, ACD⁺08a, ACD⁺08b, ASS16, BMaK19, BR02, BCY21, CI19, FW97, GCR16, GC17a, GHR12, GHR13, HT14b, KV12a, KM12, LZ17a, LCA08, MW08b, OT11, PM03, Rim18, SVG10b, WO09, WG18, Wei99, XD21, Yin09, dWPR20, AD96, EB96, NP96, Sch96, CRMC12, EMT99, GMS18, KBG23, LB11, Rei13, RAT18, ZK14c]. **transform-based** [NP96]. **Transformation** [CP03b, DK11, HC98, KR06, YH19, Yun03, YK03]. **Transformations** [AD07, ACD⁺08a, ACD⁺08b, BPS22, CD06, GGOY02, GL15, HSU21, ISW18, Joe95, MHS98, Goe97, Joe93]. **Transformed** [TT06, UEE12, Wel17, Wel20]. **Transforms** [Ant22, BBBV13, BV98, CPG20, Di 97, FT03, IBM01, LQ19, Nak98, NL99, Pek12, PP13, TW09, Wel20, BS94, DR93b, Heg95]. **Transient** [BG07, BP13b, FHFR13, JLYZ23, MST15, SBM07]. **Transistors** [HJP04, JP14]. **Transition** [CCER12, Gar94, KKS08, ZDZ16]. **Transitions** [BG11, BGH19, CG96]. **Translates** [PPT11]. **Translation** [ARM⁺19, Gri19, GD03, ED95].

Translation-Invariant [ARM⁺19].
Transmission
 [BCI22, BLS14, DGK23, HHL15, JLY08, LQH21, MRS04, MS12, MV21, PvdVvG17, QX08, RL10, WH13, WX17, YBLH16].
Transonic [CGK⁺98, SS10a]. **Transparent**
 [Coa12, JK21, RSSZ08]. **Transport**
 [AGR⁺20a, AHT12, AH06, ACCP13, BH14a, BGL08, BSS09, BBT19, BP13b, BBG⁺19, BBM⁺08, BLM03, BJ08, BSU19, CL18b, CQ22, CCJ21, CMM⁺07, CLTX15, DMML05, DJP00, DPS18, EKLS⁺18, EMNS20, ES18b, FB21, FHL13, FSV22, Fro12, GJ08, GC16b, GC17b, HHM17, HKF⁺13, HSMT20, HRT13, HJP03, HJP04, HCX22, HJS18, HCL23, JLP18, JP14, Kan03a, KR14, KGM⁺08, KGM⁺11, KMS15, KLLY20, KP12b, KMER22, KWG⁺20, KT17, LFH19, Lay06, LdGK20, Lee10a, Lee12, LR12, LYLC21, MMM⁺94, MCB18, OL98, PLVG⁺22, Peh20a, PL21, PMR16, PBtTB⁺15, RSSM18, RPM23, Ros06b, RCLO18, SG11, Sch19, SH20, TWK18, VY09, WZB⁺23, WZET13, YS16, ZS23, ZCQQ21, MMM⁺95, MMY96, PCDB96].
Transport-Dominated [Peh20a, RPM23].
Transport-Reaction [HKF⁺13].
Transportation [BCC⁺15, PBJ⁺96, SM15].
Transported [RPM23]. **Transporting**
 [BLVZ23]. **Transports** [Rei21]. **Transpose**
 [CCC17, Fre93]. **transpose-free** [Fre93].
Transposition [Gup17, Mat18].
Transverse [SPS18, ZB12]. **Transversely**
 [SCC17]. **Trapezoid** [LNP15]. **Trapezoidal**
 [Alp99, LH19, SO15]. **Travel**
 [CCH15, HRvdZ22, KLN20, TH17].
Traveling [LT12]. **Traveltime** [LQH21].
Traversal [WM11]. **Treating**
 [DL20a, SO09]. **Treatment**
 [BH00b, CDM⁺13, Sch09, WFG⁺20].
Treatments [CGZ99, DKM14b]. **Tree**
 [AFS19, BMNV20, BMNV21, BG14, BH17, CWA14, HSK19, WMSG09]. **Tree-Based**
 [BMNV20, BMNV21, BH17]. **Tree-Code**
 [WMSG09]. **Tree-Structure** [AFS19].
Treecode [DD12, KW11, MXB15].
Treecodes [GSS00]. **Trees**
 [JK21, KU18, Oli01]. **Treftz**
 [AORW20, EKS15]. **Tresca** [CEP20].
Trial [Lin16]. **Triangles**
 [Ber00b, D'A00, DK98, KPP⁺14, OTV19].
Triangular [AKK18, BGLY05, Ber98b, Bol03, BK17, Cao07, CW18, FEM08, GGL09, GK19, HO15, HP94, Hig95, Hog13, KT15, Kla98b, Le 01, LNSZ06, MKRK13, SC02, WSK99, ZS03, ZQ18, AS93, BK17].
Triangularly [vd97]. **Triangulated**
 [FJP⁺11, LLZW19, NW22]. **Triangulation**
 [CWL⁺14, DV98, HGPM14, VHGR10].
Triangulations
 [EÜ09, Joe95, JGZ06, Joe93]. **TriCG**
 [MO21]. **Tridiagonal**
 [BHK20, DMPV08, DJLZ96, GWMG03, HKO99, KL11, LZ99b, MRV06, Oet99, RT99, AM95, Lan93, LL93, LZ94].
Tridiagonalization [BORTP19]. **Trigger**
 [BBC⁺16]. **Trigonometric**
 [AM18, HK17, KP07, MS20, Str00a, WDT22].
Trilinear [VP10]. **Trilinos** [HKR16].
TriMR [MO21]. **Triple** [KW15]. **Triplets**
 [De 12b, GSR19, JN10, WS15]. **Trivariate**
 [CD15a]. **Troubled** [QS05a, VR16, ZWG21].
Troubled-Cell [QS05a, VR16, ZWG21].
TRPL [WXS19]. **True** [Zha20, vdVY00].
Truly [YWG21]. **Truncated**
 [AM18, CD15b, FGHO97, GJZ18, HSF23, MBVO13, YBM⁺18]. **Truncation**
 [BKS16a, BLY21, HSS08, OC03, OPR23, PN19, TWL21, VVM12]. **Trust**
 [KHRvBW13, KHRvBW14, Pla98, QGVW17, RS02, TGPK23, WRS08, YMW07, YSK19, ZS18, dSK11, Sar97].
Trust-Region
 [KHRvBW13, KHRvBW14, RS02, ZS18].
Trust-Regions [WRS08]. **TSAdjoint**
 [ZCS22]. **TSFC** [HMLH18]. **TT-Based**
 [ZBdAF20]. **TT-Format** [OD12]. **TT-SVD**
 [RZTB22]. **Tube** [AHH12, Hun95, LJL09].

Tubes [TY00]. **Tubular** [NNRW09].
Tucker [DH16, DKS21a, Ett16, GOS12a, KP17, PNL⁺21]. **Tumor** [BCG⁺10, HDB08, SSM⁺20]. **Tunable** [RG20, ZZK15, ZMK17]. **Tuning** [BHM⁺21].
Turbine [TAY⁺19]. **Turbulence** [BBR04, PH13, WT23]. **Turbulent** [AK15, AABM13, AL07, EAS08, Har11, MP20a, TW96, ZCZ04]. **Turning** [LO03].
TV [GLN09, LRT11, SWU16]. **TVL1** [YZY09]. **Twin** [vLHH21]. **Twist** [BT03a, LFWP08]. **Two** [AK09, ABC⁺16, ABMR11, AG17b, ARS21, AJR23, ABIGG16, AIL05, AHR12, AHT17, Atk94, BN23, BGL06a, BT06, BBKK97, BK99, BC10, Bar99, Bar12b, BCT05, BB15b, BH11, BM01b, Ber95b, Beu05, BMMR20, BLMS21, BBKW19, Bre00, BKS13, BP22, CHR99, CM98b, CDG03, CGG07, CP07, CGL01, tVÇAU10, CV12, CV15, CLDS19, CC02, CL97, CD20, CZ22, CC09, CJ05a, CDB13, CST⁺13, DS00, Dk00, DD00, DJM16, DF20, DL19, DKPS17, DF99, DHZZ18, DV20, ELW20, EG01, EF05, EPV94, Fai03, FV06, FS01, FL97, Fer98, FCZE14, FK00b, FCC10, FN94, FL08, GJSZ13, GVP06, Giu22, GV16, GGKM07, GK98, GPS95, Gro02, GC97, HKR16, HL20, HHvR03, HZZ20, HS94, HR99c, HLZ13, ISW18, JVG12, JW05, JLZ16b, JK08, JP01, KKV13, KKP14, KR23, KCZ15]. **Two** [KSMM18, KKS13, KL06, KY14, KS15b, KT08, Kra09, KW15, KP09b, KPW17, KLLM22, KM05, Ld12, LAG14, LL19, LL98a, Le 09, LP08, LG97, Lee13b, LR20a, LR12, LM15, LD16, LZ21b, LMT18, LB15, Liu20, LQZ22, LWSP22, LCK21, Mac98, MRI21, MABO07, MB17, MMR19, MB13, MMN00, MO21, MY18, MEF09, NH12, NS06, NN19, NCV06, PJZ23, PV08, PNP13, QS14, RRR03, RRR05, RT01, RL18, RR98, RO12, SSW12, Sha21a, Sha12, SY10a, SY14, SM94, SSJB17, SO09, TC99, TT13, VHSP20, VC00, VBT99, VMG09, WS07, WXK04, WDE⁺99, WL11, WMC12, WB12, WG18, WLLZ18, WHL18, WMHK19, WC23, WWM03, WMSG09, WCHZ14, WSP22, WGF08, WZ19, XBC96, Xu94, Yam02, YTLI11, YYS16, Yu01, ZF14, ZXY21, ZHY21, ZLZ22, dZHY23, ZzSpH14, aKT18, Cai93, CSS93a, EOD93]. **two** [EG93, Elt96, LV94, SRCG93, SS93b]. **Two-** [MMN00, SS93b]. **Two-Body** [Kra09, Sha12, CSS93a]. **Two-by-Two** [BGL06a]. **Two-Dimensional** [ABC⁺16, BT06, BBKK97, BMMR20, BLMS21, BP22, CHR99, tVÇAU10, CC09, CST⁺13, DD00, DF20, DL19, DF99, DHZZ18, FCC10, GVP06, Giu22, HR99c, ISW18, JK08, JP01, KL06, KPW17, KLLM22, LL98a, Le 09, LP08, LB15, Liu20, Mac98, MRI21, MABO07, MMR19, MB13, NS06, PJZ23, PNP13, RRR03, RO12, SM94, TC99, WXK04, WB12, WWM03, WCHZ14, WSP22, XBC96, Yam02, Yu01, ZzSpH14, KT08, Elt96, SRCG93]. **Two-Electron** [KKS13]. **Two-Fluid** [EF05, LM15, MEF09]. **Two-Grid** [AG17b, BN23, CJ05a, FL97, Fer98, LZ21b, MY18, Xu94, Atk94, VBT99]. **Two-Layer** [AK09, FV06, KP09b]. **Two-Level** [ARS21, AJR23, BC10, Bre00, CDG03, CGG07, CGL01, DS00, DKPS17, DV20, EPV94, Fai03, HKR16, HL20, HHvR03, KKV13, KKP14, MB17, WHL18, WWM03, WZ19, LWSP22, NCV06, Cai93]. **Two-Material** [Sha21a]. **Two-Medium** [CZ22]. **Two-Parameter** [GGKM07]. **Two-Phase** [AHR12, AHT17, BCT05, BH11, BBKW19, CLDS19, CL97, CDB13, FL08, KSMM18, KS15b, Ld12, LR12, LQZ22, LCK21, QS14, SY10a, SY14, SO09, WGF08, YYS16, ZHY21, dZHY23, LV94]. **Two-Point** [BM01b, LG97, LR20a, VC00]. **Two-Regime** [FCZE14]. **Two-Scale** [CV15, KR23, NN19, SSW12, SSJB17, VHSP20, VMG09, CV12]. **Two-Side** [ELW20]. **Two-Sided** [BB15b, LMT18, WMHK19]. **Two-Sphere** [WL11]. **Two-Stage** [LD16, WC23].

Two-Step [Bar99, HLZ13, KW15].

Two-Stream [GV16]. **Two-Term** [FN94].

Two-Way [KCZ15]. **Type**

[AILP07, BKK⁺21, CZ10, CLLY20, CRS20, CMM95, DW97a, DLY14, DHZ⁺21, EL01, GLZ22, GO09, GW00, GML⁺21, Gur04, HJN17, HS06d, Hoc01, HXX18, HXB11, HLM16, HJ19, ISS19, JW05, KQW04, Kus97, LD16, LLCW22, LP23, Lu95, MK00, MR01, PE00, QS03, RG98, TS11, TLT12, WWY11, WRSZ18, YP98, Zha97, ZZWZ14, ZMS21, ZZY20, Zha22b, ZNX14, ZQ17, AO93, DSC05, GPHHAPR18, MV00, MC05, NvdP00, Tan93, AM17]. **Types** [GYZ11].

UGKS [XZLX22]. **UGKS-Based**

[XZLX22]. **Uintah** [BBH⁺16]. **Ultimately**

[Rum09]. **Ultra** [HLL⁺22, HMCK04].

Ultra-Weak [HLL⁺22, HMCK04].

Ultrametric [MDC08]. **Ultraparallel**

[BFKY11]. **Ultrarelativistic** [KQW04].

Ultraspherical [DAE02, Elb06]. **Unbiased**

[CK17, GHKF22, GK13, HXW22, RVA17].

Unbounded [BWZ10, CGC21, CF05, DR13,

DHZZ18, Kim05, MS17, TZ14, TWYZ20,

XSC21, SY12]. **Uncertain**

[BBC⁺21b, KP21, LM14b, MSS12, PVC17,

SBND11, SCS04, TLE12, ZTM⁺16].

Uncertainties [SG04]. **Uncertainty**

[AM04, ASZ07, Bar12a, BPR04, BF16,

BDK⁺20, BZ12, BGMW17, BJW18b,

CHL06, CHX15, CAB04, CYVK15, CBG⁺19,

FUNB18, FWA⁺11, FJHM19, FR19, GW20,

GW04a, GS14, HSK19, HJX15, KH14,

KHRvBW13, KHRvBW14, Kou09, LNP⁺07,

LX12, LQX14, LW15, LZ04, PDE⁺17,

Rah13, SSDN12, SRW⁺18, TZ14, WB08b].

Uncertainty-Weighted [FR19].

Unconditional [LLJF21].

Unconditionally

[BBMZ20, CYZ17, GZW20, LO19, LWZ17,

Wan22, YY18, ZHY21]. **Unconstrained**

[Toi96]. **Underdetermined**

[AHDK14, JP08, MSM14, SX11].

UnderSampled [DG17a, CG10].

Understanding [WTP21]. **Underwater**

[TKW08]. **Unfitted** [BMV18, BMNV21,

BCDE21, HLP23, LY20, LGR20, ZVF18].

Unidirectional [OL98]. **Unification**

[Tie18]. **Unified** [BWZ21, GLRS23, GKC13,

HK02, KLRU17, KHW⁺14, LKvBW10,

MS18a, WMBT19, WPGR13, ZZZ21].

Uniform [CC06, Fu21, GMSB16, Lu95,

Ong94, Red99, Sch10, TV93].

Uniform-Consistency [Lu95]. **Uniformity**

[LSW02]. **Uniformization**

[SBM07, WkZ15]. **Uniformly**

[BS18a, BR09, CCL⁺20, Lau22, TB99a,

WYT18, WX21, ZCL⁺11]. **uniprocessor**

[NP93b]. **Uniqueness** [FLM⁺05]. **Unit**

[GMSB16]. **Units** [BBFJ16, BCFJ19,

KMSM14, KHW⁺14, Nov15, WHCX13].

Unity [AD18a, AD19, DFW21, DFW22,

GS00, GS02a, GS02b, KO17, LSH17, Mir21,

Sch09, Sch13, ST23, YSZ14]. **Univariate**

[Win06]. **Unknown**

[ACD23, HM18, WQX20, YGS⁺21].

Unknowns [KL10]. **Unmatched**

[DHHR19, EH18]. **Unmixing** [BNP15].

Unnormalized [Wal14]. **Unrelated**

[Soo16]. **Unsaturated** [FK97]. **Unspecified**

[GL22c]. **Unsplit** [NMAB11]. **Unstable**

[LCBD07, SW22a, SW22b, Sma01, vVKA11,

Wri93]. **Unstaggered**

[HRT13, Ros06b, TKK16]. **Unsteady**

[BBKK97, BCI22, GHTW00, GP96, HR99a,

JVG12, OKGG⁺23, PTT20b, TY00, TVV11,

WMI09, Wu99, MPR93]. **Unstructured**

[ABBM98a, ABBM98b, ATWK20, AJ22a,

AKS05, BKS13, BL05, CQ22, CGZ99,

DBSR17, EZ11, EFHL09, FEM08, GK19,

GH99, HL20, KN21, KWG⁺20, KZ16, LE10,

LSTY21, MV09, MKRK13, MMV98, NX12,

RW01, SRI⁺18, SC02, TP21, VBT99,

XOMN10, ZSD⁺10]. **Unsymmetric**

[GBDD10, HK00, HvdG96, Nik00]. **up-**

[BPT93]. **Update** [CWY17, HCRT13,

LXdH20, MT19a, VD23, vNLB04, Anj93].

Updates

[BDdSM11, BBM11, KMR19, LXdH20, MHL⁺15, PW15, PXY16, YPHH17].

Updating [AB16b, HA17, ZS99]. **Upon** [KM97, HH13]. **Upper** [BGS17, LQX14].

Upscaling [BLV17, ICCVEKV17, EIL⁺09, HKM20, KLV⁺16]. **Upwind**

[CPR11, KNP01, KPP07, KP09b, KPW17, LE10, Tor05, VS03]. **Upwind-Euler**

[CPR11]. **Upwinding** [CKV99]. **UQ**

[BH20]. **Urine** [LL02]. **Use**

[AABM13, Cai95, CFSZ08, Che13, CWG10, DNP⁺04, DGK⁺16, GBS19, JFG15,

JvGVS13, Man99, OT09, RZ03, SO15, SSVW17, ZLLT13, HO93]. **Used**

[NNH99, SMZ18]. **User** [MT19a].

User-Defined [MT19a]. **Using**

[AGI10, ABM⁺13, AKW17, AP14, Ant22, AMP00, ALZ14, ACHN21, AGHJ23,

ADLW19, BBSV10, Bar05, BSS09, BKK⁺21, BBC⁺16, BNP15, BL23b, BBR04, BB15c,

Bja19, BV00, BNN23, BBT11, BHP94, BMPS22, BT21, BBR08, BKS98, BW09,

BDW11, BJW18b, BT19, CLW13, CD19, CWC08, CCC17, CD15a, CT03, CFKM18,

CSZZ20, CYDK21, CHJ16, Cho05, CH08b, CBG⁺19, CV98, CRR18, CPD17, CPB19,

CFM98, DU19, DKM14a, Del14, DHL⁺23, DARG13, DG17a, DLTZ06, DL19, DAE02,

DFJS19, DMRR19, DKS21a, DS97, DTT⁺16, DV98, DHE13, DGK98, DKZ09,

DCP11, DHL20, DB07, DF03, DV20, EHL06, EKSS16, EVLW17, FGMP13, FGMP14a,

FGMP14b, Fai03, FTY15, FJHM19, GH13, GRPG01, GLR⁺16, GL15, GMS21, GS98b,

GCB04, GN22b, GNPT18, GM11, GNZC17, GX20, HT14b, HKA⁺21, HS99a, HM98].

Using

[HW03, HW99, Hof05, HRS10, HL19, HC18, HM20b, Hol99, HJJ22, HCW20, HHSY22,

HJZ23, HK02, Hun95, Hun96, IT14, JP16, JFG13, Joe95, JF16, JP01, JZ00, KV20b,

KVV23, KO05, KU18, KR06, KL13a, KD20, KLS08, KLY19, Kou09, KRS21, Kup98,

Kup00, Lan98, LMKG16, LLP98, Lay06, LV10, LFB13, Lee14, LM17, LLWxY20,

Lie93, LZ13b, LS09, LCL18, LZ04, MM13, MCT⁺05, MMR19, MS06a, MCB18, MR18,

MG23, NKTY08, NMWI11, NMFP16, ODN17, OST11, OKLS15, OSS22, PDH09,

PVC17, PP05, PTT20b, PRM09, PCD17, PBtTB⁺15, QS14, QS05a, QS05b, QNNZ19,

RSNNR17, Rav02, RKLN07, Rim18, Ros05b, RHSK11, Sch02, SSW18, Sco17, SZ00,

SMR16, SAY03, SRI⁺18, SD21, Str99, SSH06, Tap22, TP21, TWK18, TBKF14,

Til15, VBA18, Van00, VSS14, VS17, VR16]. **Using** [WB08a, WS95, WE13, WSZ14,

WB00, WKM⁺07, WkZ15, WT01, XKWY08, XAW17, YCZ13, YG15, YY18, YB09,

ZGK20, ZWG21, dSGK⁺15, AMB⁺94, BS05e, BFP22, BHL22, Car93, CHX15,

CJ99, DS96, DMD⁺12, FGM95, GTK⁺17, GKM⁺17, dMGF17, HMAS17, HRR23,

HBS00, HHMDC18, Joe93, LLZW19, LBHH22, LMSSS97, MS93a, MHS98, Nat95,

Nat97, OPR22, Pet93, RNR16, SBK18, She94, She95, VS23, WvdZSvB18, YSX17,

YTT21, YWL17, dBMZ11]. **Utilizing** [BKMRB21, KRW20, PR22]. **Uzawa**

[HOW17, LRGO17].

validated [YGCP96]. **Validation**

[MS06b, RW97, Woo94]. **Validity** [CDK21]. **Valuation** [CF07, HY08, Mar03, Toi08].

Value

[ABLS05, AA00, AFF⁺15, AP97, AS94, BK06, BM01b, Bet08, BF95, BIYS00, BKS98,

CGAD95, Cas05, CD01, CV94, CGHT14, Der08, Drm97, DK03, EM96, EM99, EN08,

FS02, For06, GG13, GG19a, Gu15, HJ18b, HM14, IM97, IM99, LV07, LZ21a, LG97,

LR20a, LWZ13, LLJ22, LK98, MS07d, Nit99, Nov23, OS98, PL03, Pat97, PRSS11, SBS98,

SW16, Ste99, VC00, VV05, VVM12, VK13, YR98, BD93, BZ93, CS12, Rán93]. **Valued**

[BBSW16, BzCS11, BS15b, DH01, DRW20, GG21, MO08, PVC17, SCW23, SWU16,

VO19, XD21, ZBFN17, ZCPM20, DGB15b, GS14]. **Values** [DF21, FH21, LR10, VSS14]. **Valveless** [JP01, LJL09]. **Vandermonde** [DMM19, DMM20]. **Vanilla** [GLL⁺14]. **Vanishing** [HXB13, ISS19, XZB11]. **Variability** [GLM22, GLT18]. **Variable** [AdVC00, BLR99, BPR16, BRR18, Bör07, BB02, Cas05, CP13, CLAT10, CLST03, CS18b, CS20, DGLL21, DKS21b, FGMP13, FGMP14a, FGMP14b, GX16a, GM14a, GZYW18, GO09, HS97, HC18, HSY20, HS21, Jia14, JOY21, JL05b, JR98, KP09a, KG14, KW10a, LCE22, LJ17, LZ20, ILTZ21, LL20, LSZ23, NH14, SWX16, XZ23, ZK15, vLA21, vdSF21, CSS93a]. **Variable-Order** [CLAT10, ZK15]. **Variable-Rank** [Bör07]. **Variable-Separation** [LJ17, LZ20]. **Variable-Step** [XZ23, CSS93a]. **Variable-Stepsize** [BLR99, KW10a]. **Variables** [Bar12b, CE17, FEL18, HW99, JK12, Tap22, ZBFN17, ZRK15, ten95]. **Variably** [Sta00]. **Variadic** [Dar21]. **Variance** [DG17a, FP14, FB95, FKRH22, GSO17, SK23, ZS04]. **Variances** [AGSS19]. **Variant** [BDJ05, HZ10, NO98, YC99, CGS⁺94]. **Variants** [AR99, CGL⁺12, CMS94, CC02, CC20, GKK15, GLC21, Gut93, SM17]. **Variate** [FÖ21, GKNW18, PBP14]. **Variates** [PMSI21, SRW⁺18]. **Variation** [BGK15, CGM99, CMM00, CT03, CC03, CLNZ16, DF03, GY05, GY09, LN17, MF06, RKW20, VO96, WBFA09, ZWZ⁺13, NWY10, HS06d]. **Variation-Based** [CGM99, CMM00, CC03, GY05]. **Variational** [AEFM17, ASR⁺23, AD21, AH20, Ami94, BBSW16, BGN07, BGR16, CG21, DMN08, DCL⁺21, DSL21, GLS08, GS12, GMS21, HXW22, HW21, HW03, HLP08, Hua05, HMCK04, JZX⁺21, JK05, KLT06, KR00, KZ16, LSU11, Lee13b, LYLC17, LW20a, LWW22, LWSP22, LB07, LB08, Mar03, Obe13, PVV11, Pul08, RLG98, RL13, Sch13, SVX15, WC23, YGS⁺21, Zha20, de 99]. **Variations** [hSSW23]. **Various** [Hof04, HHL07]. **Varying** [BLMR02, BHR23, CCL⁺20, DD12, KKV13, TW05]. **Vascular** [NV08]. **Vector** [AKA13b, BS05d, BzCS11, BZ12, BS15b, BTK19, BRZ14, BBR08, Che16, CQZ17, CP95, DO15, DKGS15, DGB15a, DGB15b, DRW20, DCP11, EAA21, FHH⁺18, FMYT16, FF05, GS14, KR17, KAU18, KY05, Kor93, KHW⁺14, KV13, KQW04, LXG⁺21, MDM15, RW01, RCLO18, UA04, WH09, YHS07, YB09, ZBFN17, ZCPM20, ZGA10, ZZY20, Heg95, LMSSS97]. **Vector-BGK** [ZZY20]. **Vector-Kronecker** [DO15]. **Vector-supercomputer** [Kor93]. **Vector-Type** [ZZY20]. **Vector-Valued** [BzCS11, BS15b, DRW20, ZBFN17, ZCPM20, GS14]. **Vectorization** [Nov23]. **Vectorized** [PR96]. **Vectors** [CKLP11, Cho05, DGK98, Gri19, IK10, KKT13, SM15, YC99]. **Vehicle** [EHW00]. **Velocities** [MS98]. **Velocity** [BST08, BJP⁺22, Cho09, GP99, HPS06, KZP20, LRV22, Min02, OR02, VN03]. **Velocity-Pressure** [BJP⁺22]. **Velocity-Pressure-Pseudostress** [LRV22]. **Velocity-Pressure-Stress** [GP99]. **Velocity-Stress** [Min02]. **Venant** [LCJ⁺20]. **Verification** [BLGL11, KHU96]. **Verifying** [SE13]. **Verlet** [HL97, MIS03]. **Version** [AJ22a, AGH13, AP99, CDG17, CG99, GC97, HK95, LS05a, MMM⁺94, QOSB98, SYEG00, ZK96, Cas97]. **Versioning** [Til15]. **Versions** [LSC03, SZ99, ST98]. **versus** [CSB⁺18, GBS19, HNR17, Sma04]. **Vertex** [AGK18, BMSV97, BF22b, CMS94, CW16a, DHPAH19, DPW19, KPÇA12, RL17]. **Vertex-Based** [DPW19]. **Vertex-Mapped** [CW16a]. **Vertex-Star** [BF22b]. **Very** [BBF⁺22, GHS⁺09, Jam98, LM00, NNRW09]. **Vesicle** [CS18b, DZ08, SXL⁺22]. **Vesicles** [KS15a]. **Vessel** [DCSO10]. **VFRoe** [BM08]. **Via** [BGMR01, CZK15a, DLY17, Kog22,

LXG⁺21, LGC⁺23, ZCZ04, Zha18a, AB02, AGR⁺20a, ABLS05, AK17, ABL20a, ACN19, ADS21, AGR20b, AK04, AVW13, BS05a, BMTZ13, BR19, BM18, Bla03, BCY21, BCCX21, BTLZN22, CBHB19, Car10, CHL20, CK17, CLNZ16, CS10a, CAS11, CHWY23, CLST03, CS98, CKO15, CGF21, DP17, DFS17, DH01, DDF00, DGP10, DMM19, FMRR13, FNTB18, FM16, GSS12, GM14a, GLT09, GD07, GNZC17, HSU21, HHSW11, HCX22, HJS18, HLX23, HMMS22, IK10, JKLZ18, JML22, KKS08, KOB20, KSD10, KG18, Kue12, KOSB16, LZMW20, LKvBW10, Mar16, MKW23, NX12, Nas09, NWY10, OKdSG17, OT11, PW15, Peh20a, PG22, PH16, RO15a, RPM23, SDNL10, SM15, DFK23, TMA23, Van20, WK18, WZ19, XC20, XC13, XCLQ20, YH19, Yin09, ZKN20, ZZ04, ZF14, ZBK18, ZZZ21, ZZL22, ZSPL21, ZVF18]. **Vibration** [Cab94, PRS12, QRV21]. **Vibrations** [CSS10, Lan94]. **Vibroacoustics** [GJ07]. **Video** [LB07, LB08, SYZO15]. **ViennaCL** [RTR⁺16]. **Views** [Bja19]. **Virtual** [FK18, MV21, NKTY08, WLZ18]. **Virtual-GRAPE** [NKTY08]. **Virtue** [CCS⁺19]. **Visco** [YBM⁺18]. **Visco-acoustic** [YBM⁺18]. **Viscoelastic** [BB08b, CL03, Del14]. **Viscoelasticity** [MRB23]. **Viscosities** [SY10a]. **Viscosity** [CP13, Elm99, FGMP13, FGMP14a, FGMP14b, GO09, HC20b, RSG17, hSSW23, TW12, TLLK09, XS08]. **Viscous** [BG05b, BKBT18, EHY21, Fai03, GZYW18, GZW18, GXZ21, HB97, JMN01, KMER22, Kup01, Lay96, Mar09, NNH99, SL09a, TY00, Whi15, Xu04, Elt96, SS93c, TR93]. **Vispark** [CHJ16]. **Visual** [CHJ16]. **Visualizing** [YWL17]. **Vitro** [DMM⁺16]. **Vlasov** [BOB⁺19, BCC20, CLW13, CV07, CCL⁺20, EL18, EL19, GH18, KRW20, Kor15, McG95, MCV17, PKS21, TKCC13, WMC12, XOMN10, ZCQQ21]. **Vlasov-Based** [CV07]. **VLSI** [MS07c]. **Volatility** [IT09b]. **Voltage** [BFSN08]. **Volterra** [AH18, BHK14, SE11, XZB11, ZV05]. **Volume** [AGL10, AH06, AW11, AS05, AD06, BSS09, BMM98, BCF12, BS06a, BRBT12, BDPR22, CH09a, CCKP21, CLP08, CZ10, CHKM13, CK15, Che05, CCC18, CH11, DTY20, DRFNP07, DFN12, DMSC18, EKSS16, ES17, EIL01, FM11, FCM12, FEM08, FL19, GCD21, GW15, GHS⁺09, HA01, KP12b, KPS19b, KW10b, Kye12, Ld12, LOL13, LO14, Lem16, LL08, LSV13, LMMW04, MMZ03, MB13, MSS12, MT23, MSV00, OSU10, OKGG⁺23, PHA18, PL06, Pet01, PPRS19, QS08b, Rah00, SYY09, SY18, SC02, Tor05, Ush01, YCY19, ZJC12, ZLS12, ZQ18]. **Volume-of-Fluid** [LL08]. **Volumes** [Say15]. **Volumetric** [CDM⁺13]. **Voronoi** [BGL06b, DGJ03, DW05b, GCN21, JGZ06, LCN14, ZEG19]. **Vortex** [BN98a, GHK14, HM98, KO17, Nit99, OSCE00, PRM09, Pup99, RRR05, Ros96, Ros97, Ros06a, WMSG09, HLS93]. **Vortex-Grid** [Pup99]. **Vortices** [MDC98]. **Vorticity** [Ber98a, FM11, MR01, RLM⁺00, LSM93]. **Vorticity-Based** [RLM⁺00]. **Vorticity-Preserving** [MR01]. **Vries** [Yan22]. **vs** [LK98]. **W** [LSPRV21]. **Waals** [FKQS17]. **Wagner** [GM20]. **Walk** [SM94, ZS04]. **Walks** [BMMR20, YCZ13]. **Walled** [BKFG19]. **Warped** [Pul08]. **Warping** [MTM08]. **Wasserstein** [CSB⁺18, CDZ22, LYLC21]. **Wasserstein-1** [LYLC21]. **Water** [AK09, ABB⁺04, BBSV10, BM08, BP12, BCCX21, BL05, BT16, CLP08, DEN21, FS01, FM11, GdLP⁺18, GN07, HK02, KP09b, KLLM22, Lay03, Lay06, Le 05, LRP07, LP08, LDS11, LM21, LCJ⁺20, Liu20, Mar09, MSS12, MRKS21, PS19a, RLC08, RLM⁺00, TC12, YCC10, Pet93]. **Wave** [AAAH⁺19, AM19, AM17, ABIN20, ABL20a,

AP12, AHV18, AGR20b, BS95, BLMR02, Ban10, BBHJ21, BDZ13, BG98, BH22, BK18, BHL22, CLL20, CDKL22, CW17, CHW17b, CF23, Chr09, CV16, CJ95, DLM16, DF20, DG09, DR13, DHZZ18, DKM14b, EKLS⁺18, GHRR19, GH15b, GM17, GL22a, GMvdV18, Gee19, GMvdV19, GLQ16, GM13, GMM15, GW04b, GM04, HHT03, HY14, HZ16, HL17, HLY13, HLL⁺22, HSSZ09, HMCK04, JLZ16b, JK21, KMA⁺12, KPL13, KRR23, KLZ22, Kös07, KP05, KP06b, LQ19, LS95, LOL13, LO14, Lem16, LLX15, LGCL21, LB06, LX16b, LLS19, MT99, Min02, MRKS21, MR01, MV06, NH18, NMS06, ODN17, PKD13, Pel18, PTT20b, Pic10, Str99, SL22, Tra95, VMG09, WT23, WGT14, WP19, War13, WG00, WL20, XKWY08, YWG21, ZWP21, ZZ22, ZLJ96, Zin00, RS16].

Wave-driven [Kös07]. **Wave-Front** [GM13]. **Wave-Kernel** [NH18]. **Wave-Like** [KLZ22, WG00]. **Wave-Ray** [LB06].

Waveform
[ADM10, BT21, GS98a, GR05a, GJS19, GLR23, GR17, HKA⁺21, HR07, JV96, JP95, KO19, LW97, Mar09, MBVO13, MB19, PDC99, RWA95, SB98, SV00, TZ95, TH17, WH13, WX17, YBM⁺18, ZKV99, Lei93].

Waveform-Relaxation [GLR23].

Wavefront
[AKK18, CJN13, HS01b, MHL⁺15].

Waveguide [JMR17]. **Waveguides** [Fli13, Zha22a]. **WaveHoltz** [AGR20b].

Wavelet [ABCR93, And16, Ant22, BBC⁺01, CC02, CCSS03, CM99, DHS22, DF20, DF03, EBR00, EOZ94, EK14, FT03, GP16, GHK14, HS05b, HC05, Jah10, Jam98, KNN12, KV05, LS99, LFJS14, MK08, NMS06, OGO16, OT11, RHSK11, Win10, XKZ95].

Wavelet-Based [DHS22, EK14].

Wavelet-In-Time [And16]. **Wavelet-like** [ABCR93]. **Wavelet-Optimized** [Jam98].

Wavelets [Bit99, BB15c, BH93, Hol99, Li99, OGO13, RZ03, SV03, VW98, Jam96].

Wavenumber [DMBB10, CGX21].

Wavenumber-Based [DMBB10].

Wavepackets [FGL09]. **Waves**
[ACHN21, BDG20, DMD⁺12, EO16b, Gob08, GN07, HLW00, HPS08, Hwa07, LRP07, LP08, LDS11, LT12, Men94, MZ94, PG22, SKWK18, Sei95, Wu99, LP06, Pet93, WAS94].

wavespeeds [BCLC97]. **Way** [KCZ15].

Weak [ACVZ12, AVZ13, AGK18, BCAG22, CHWY23, Giv12, HWZ19, HLL⁺22, HMCK04, KL15, KK13, KCB17, Liu96, LTW18, MWY17, Mu20, MYZ21, RH06, SBP04, Sch18, TVA02, Vil14, dZHY23].

Weakly
[AM22, AT19, BJNN02, BBS19, BBS22, BGH23, CP17, Ein19, EF05, GN19, LSZ17, MAH22, NBA⁺14, Vil09, Yum03, YK03].

Weather [MW08b]. **Web** [DMM⁺08].

Wedderburn [GOS12a]. **Wedgelet** [FDFW07]. **Weeks** [Wei99]. **Weight** [ABL⁺20b, CHW17a, CHW17b, LD04].

Weight-Adjusted [CHW17a, CHW17b].

Weighted
[ADH99, BC09a, CCJ21, CFR05, CM98a, CM98b, CLTX15, CKM23, DHPAH19, DBSR17, EMN17, ELW20, FR19, GB12, GNYZ18, HKYY16, HS06a, JP00, JSZ13, KPP⁺16, Knu96, Kup00, LZG20, MKSG10, MW03, May05, NP14, PW12, QS05a, QS08b, Rad16, RVA17, RSG17, SY18, Tim19, WS07, WS06, ZLS12, ZQ18, FF94].

Weighted-Norm [CKM23]. **Weights** [BMF12, Bog14, GL22c, HT13a, HV01, JM18, LLZW19, Swa02]. **Well**
[ABB⁺04, BCAG22, BBF⁺22, CCKP21, CCM08, CK15, DEN21, DRFNP07, DQ22, Du16, GCD21, Gos12b, GdLP⁺18, KPS19b, KLLM22, Liu20, LXL11, TKK16, VHGR10, WSZ14, WX21, YLF23, DS95a, FCR93].

Well-Balanced
[ABB⁺04, BBF⁺22, CCKP21, CCM08, CK15, DEN21, DRFNP07, DQ22, GdLP⁺18, KPS19b, KLLM22, Liu20, LXL11, TKK16, YLF23, Gos12b]. **Well-Balancedness** [WX21]. **Well-Centered** [VHGR10].

Well-Conditioned

[BCAG22, Du16, WSZ14]. **well-posed** [FCR93]. **WEM** [BK06]. **Wendroff** [JSZ13, Kol99, LD16, MR01, QS03]. **Wendroff-Type** [MR01, QS03]. **WENO** [AGI10, ALRT17, BBMZ20, BQRX22, CLL13, CFJT18, DGLW16, JX13, LPR00, LPR02, LNSZ06, LSZ11, QS03, QS05b, WDG⁺18, WDGK20, YHQ12, ZS03, ZCQQ21, ZQ17]. **Wetting** [PLVG⁺22]. **Which** [GBS19, Wri93, XD21]. **While** [SO10]. **Whirling** [LP04]. **White** [CGF21, FVV21, GZ19, WGT14, ZTRK14]. **Whitham** [BCV13]. **Whittle** [JKL22]. **Whole** [Zhe07]. **Wick** [WR13, ZRK15]. **Wide** [KHW⁺14]. **Width** [Men94]. **Wiener** [XK02, ZRTK12]. **Wigner** [JLYZ23, JF16, MW16, RY03, XCS16]. **William** [PS97]. **Willmore** [BGN08]. **Wilson** [BK14, FKK⁺14]. **Wind** [TAY⁺19]. **Windowed** [CEO11, GHR12, GHR13, GMS18]. **Windowing** [ABL20a]. **Winther** [CGP12, GK18]. **Wire** [BH07]. **wise** [OB21]. **Within** [OW02, BSH16, KK16, TMM20]. **Without** [Kaw15, LL00, Roe98, ADF⁺19, BR11, GMN02, KL10, KR21, Mat18, TWL21, Yun03, ZMS10]. **Wolfe** [MZWG16]. **Wong** [CZK15a]. **Work** [Ske09]. **Workflows** [BBC⁺16]. **Wrap** [HW94].

X

[GHS⁺09, HHP22, HFL⁺16, JBL18, KLS08].

X-ray

[HHP22, GHS⁺09, HFL⁺16, JBL18, KLS08]. **XFEM** [BCKK16, GLOR16, KGR16, LR12, Leh15, ZVF18]. **XFEM-Based** [BCKK16]. **XFEM/DG** [ZVF18]. **Xolvers** [KALO07]. **XPINNs** [HJKK22].

Yang [CW06].

Zakai [CZK15a]. **Zakharov** [BS05d, BDZ13, BS18a]. **Zernike** [BPB07]. **Zero** [AHT17,

BLP14, JG02, XS08]. **Zero-Crossing** [JG02]. **Zero-Dispersion** [XS08]. **Zero-Norm** [BLP14]. **Zero-Viscosity** [XS08]. **Zeros** [AVW13, Bal00, KMV99]. **ZFP** [DFH⁺19, FDH⁺20]. **Zhu** [Pic03]. **Zienkiewicz** [Pic03]. **Zimmermann** [SDNC20]. **Zolotarev** [GPTV15].

References

Ainsworth:2000:CAO

[AA00]

Mark Ainsworth and Mark Arnold. Construction and analysis of optimal hierarchic models of boundary value problems on thin circular and spherical geometries. *SIAM Journal on Scientific Computing*, 22(2): 673–703, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35627>.

Aruliah:2002:MPK

[AA02]

D. A. Aruliah and U. M. Ascher. Multigrid preconditioning for Krylov methods for time-harmonic Maxwell's equations in three dimensions. *SIAM Journal on Scientific Computing*, 24(2): 702–718, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38735>.

- [AA13] **Alves:2013:MFS**
 Carlos J. S. Alves and Pedro R. S. Antunes. The method of fundamental solutions applied to some inverse eigenproblems. *SIAM Journal on Scientific Computing*, 35(3):A1689–A1708, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AA14] **Akbudak:2014:SIO**
 Kadir Akbudak and Cevdet Aykanat. Simultaneous input and output matrix partitioning for Outer-Product-Parallel sparse matrix-matrix multiplication. *SIAM Journal on Scientific Computing*, 36(5):C568–C590, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AAA⁺19] **Abduljabbar:2019:ESF**
 Mustafa Abduljabbar, Mohammed Al Farhan, Noha Al-Harthi, Rui Chen, Rio Yokota, Hakan Bagci, and David Keyes. Extreme scale FMM-accelerated boundary integral equation solver for wave scattering. *SIAM Journal on Scientific Computing*, 41(3):C245–C268, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AAB⁺15a] **Adler:2015:EML**
 J. H. Adler, T. J. Atherton, T. R. Benson, D. B. Emerson, and S. P. MacLachlan. Energy minimization for liquid crystal equilibrium with electric and flexoelectric effects. *SIAM Journal on Scientific Computing*, 37(5):S157–S176, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AAB⁺15b] **Amestoy:2015:IMM**
 Patrick Amestoy, Cleve Ashcraft, Olivier Boiteau, Alfredo Buttari, Jean-Yves L’Excellent, and Clément Weisbecker. Improving multifrontal methods by means of block low-rank representations. *SIAM Journal on Scientific Computing*, 37(3):A1451–A1474, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AAB⁺16] **Agullo:2016:RMA**
 Emmanuel Agullo, Patrick R. Amestoy, Alfredo Buttari, Abdou Guermouche, Jean-Yves L’Excellent, and François-Henry Rouet. Robust memory-aware mappings for parallel multifrontal factorizations. *SIAM Journal on Scientific Computing*, 38(3):C256–C279, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AABM13] **Almgren:2013:UHO**
 A. S. Almgren, A. J. Aspden, J. B. Bell, and M. L.

Minion. On the use of higher-order projection methods for incompressible turbulent flow. *SIAM Journal on Scientific Computing*, 35(1): B25–B42, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ainsworth:2011:BBF

[AAD11]

Mark Ainsworth, Gaelle Andriamaro, and Oleg Davydov. Bernstein–Bézier finite elements of arbitrary order and optimal assembly procedures. *SIAM Journal on Scientific Computing*, 33(6): 3087–3109, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3087_s1

Amitai:1998:IEP

[AAH98]

Dganit Amitai, Amir Averbuch, Moshe Israeli, and Samuel Itzikowitz. Implicit-explicit parallel asynchronous solver of parabolic PDEs. *SIAM Journal on Scientific Computing*, 19(4):1366–1404, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28129>.

Andersson:2023:CRD

[AAO23]

Kristoffer Andersson, Adam Andersson, and C. W. Oost-

erlee. Convergence of a robust deep FBSDE method for stochastic control. *SIAM Journal on Scientific Computing*, 45(1):A226–A255, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1478057>.

Abgrall:2002:RDS

[AB02]

Rémi Abgrall and Timothy Barth. Residual distribution schemes for conservation laws via adaptive quadrature. *SIAM Journal on Scientific Computing*, 24(3):732–769, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38592>.

Adavani:2008:MAI

[AB08a]

Santi S. Adavani and George Biros. Multigrid algorithms for inverse problems with linear parabolic PDE constraints. *SIAM Journal on Scientific Computing*, 31(1): 369–397, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Andallah:2008:DBE

[AB08b]

Laek S. Andallah and Hans Babovsky. A discrete Boltzmann equation based on a cub-octahedron in \mathbf{R}^3 . *SIAM Journal on Scientific Com-*

- puting*, 31(2):799–825, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AB19]
- Ableidinger:2016:SIS**
- [AB16a] M. Ableidinger and E. Buckwar. Splitting integrators for the stochastic Landau–Lifshitz equation. *SIAM Journal on Scientific Computing*, 38(3):A1788–A1806, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Arrigo:2016:UDT**
- [AB16b] Francesca Arrigo and Michele Benzi. Updating and down-dating techniques for optimizing network communicability. *SIAM Journal on Scientific Computing*, 38(1):B25–B49, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Abdulle:2017:DGR**
- [AB17] Assyr Abdulle and Ondrej Budáč. A discontinuous Galerkin reduced basis numerical homogenization method for fluid flow in porous media. *SIAM Journal on Scientific Computing*, 39(1):A83–A113, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ahn:2019:IAS**
- Ji Soo Ahn and Michael J. Bluck. Isogeometric analysis of the steady-state incompressible MHD equations. *SIAM Journal on Scientific Computing*, 41(2):B396–B424, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Annunziato:2021:FPA**
- [AB21] Mario Annunziato and Alfio Borzi. A Fokker–Planck approach to the reconstruction of a cell membrane potential. *SIAM Journal on Scientific Computing*, 43(3):B623–B649, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Audusse:2004:FSW**
- [ABB+04] Emmanuel Audusse, François Bouchut, Marie-Odile Brisseteau, Rupert Klein, and Benoît Perthame. A fast and stable well-balanced scheme with hydrostatic reconstruction for shallow water flows. *SIAM Journal on Scientific Computing*, 25(6):2050–2065, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43109>.

Amari:2009:CBF

- [ABB09] Tahar Amari, Cédric Boulbe, and Tahar Zamène Boulmezaoud. Computing Beltrami fields. *SIAM Journal on Scientific Computing*, 31(5):3217–3254, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Azad:2016:EML

- [ABB⁺16] Ariful Azad, Grey Ballard, Aydin Buluç, James Demmel, Laura Grigori, Oded Schwartz, Sivan Toledo, and Samuel Williams. Exploiting multiple levels of parallelism in sparse matrix–matrix multiplication. *SIAM Journal on Scientific Computing*, 38(6):C624–C651, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

AlDaas:2022:PAT

- [ABB22] Hussam Al Daas, Grey Ballard, and Peter Benner. Parallel algorithms for tensor train arithmetic. *SIAM Journal on Scientific Computing*, 44(1):C25–C53, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1387158>.

Antonietti:2023:DGA

- [ABB23] Paola F. Antonietti, Stefano Bonetti, and Michele Botti.

Discontinuous Galerkin approximation of the fully coupled thermo-poroelastic problem. *SIAM Journal on Scientific Computing*, 45(2):A621–A645, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1498747>.

Aavatsmark:1998:DUGa

- [ABBM98a] I. Aavatsmark, T. Barkve, O. Bøe, and T. Mannseth. Discretization on unstructured grids for inhomogeneous, anisotropic media. Part I: Derivation of the methods. *SIAM Journal on Scientific Computing*, 19(5):1700–1716, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29358>.

Aavatsmark:1998:DUGb

- [ABBM98b] I. Aavatsmark, T. Barkve, O. Bøe, and T. Mannseth. Discretization on unstructured grids for inhomogeneous, anisotropic media. Part II: Discussion and numerical results. *SIAM Journal on Scientific Computing*, 19(5):1717–1736, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29359>.

Ambartsumyan:2020:HMA

- [ABBT⁺20] Ilona Ambartsumyan, Wajih Boukaram, Tan Bui-Thanh, Omar Ghattas, David Keyes, Georg Stadler, George Turkiyyah, and Stefano Zampini. Hierarchical matrix approximations of Hessians arising in inverse problems governed by PDEs. *SIAM Journal on Scientific Computing*, 42(5):A3397–A3426, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Almgren:2000:APM

- [ABC00] Ann S. Almgren, John B. Bell, and William Y. Crutchfield. Approximate projection methods: Part I. inviscid analysis. *SIAM Journal on Scientific Computing*, 22(4):1139–1159, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35702>.

Agullo:2014:TBF

- [ABC⁺14] Emmanuel Agullo, Bérenger Bramas, Olivier Coulaud, Eric Darve, Matthias Messner, and Toru Takahashi. Task-based FMM for multicore architectures. *SIAM Journal on Scientific Computing*, 36(1):C66–C93, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Adler:2016:MMM

- [ABC⁺16] James H. Adler, Thomas R. Benson, Eric C. Cyr, Scott P. MacLachlan, and Raymond S. Tuminaro. Monolithic multigrid methods for two-dimensional resistive magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 38(1):B1–B24, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Adler:2021:MMM

- [ABC⁺21] James H. Adler, Thomas R. Benson, Eric C. Cyr, Patrick E. Farrell, Scott P. MacLachlan, and Ray S. Tuminaro. Monolithic multigrid methods for magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 43(5):S70–S91, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

AlDaas:2023:RAR

- [ABC⁺23] Hussam Al Daas, Grey Ballard, Paul Cazeaux, Eric Hallman, Agnieszka Miedlar, Mirjeta Pasha, Tim W. Reid, and Arvind K. Saibaba. Randomized algorithms for rounding in the tensor-train format. *SIAM Journal on Scientific Computing*, 45(1):A74–A95, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://>

- [//epubs.siam.org/doi/10.1137/21M1451191](http://epubs.siam.org/doi/10.1137/21M1451191).
[ABD⁺17] **Airiau:2017:SBA**
Christophe Airiau, Jean-Marie Buchot, Ritesh Kumar Dubey, Michel Fournié, Jean-Pierre Raymond, and Jessie Weller-Calvo. Stabilization and best actuator location for the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 39(5): B993–B1020, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABCM97] **Almgren:1997:CGP**
Ann S. Almgren, John B. Bell, Phillip Colella, and Tyler Marthaler. A Cartesian grid projection method for the incompressible Euler equations in complex geometries. *SIAM Journal on Scientific Computing*, 18(5): 1289–1309, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27373>.
- [ABdSF15] **Ahuja:2015:RBA**
Kapil Ahuja, Peter Benner, Eric de Sturler, and Lihong Feng. Recycling BiCGSTAB with an application to parametric model order reduction. *SIAM Journal on Scientific Computing*, 37(5):S429–S446, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABCP08] **Aramini:2008:PLS**
R. Aramini, M. Brignone, J. Coyle, and M. Piana. Post-processing of the linear sampling method by means of deformable models. *SIAM Journal on Scientific Computing*, 30(5):2613–2634, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABE⁺17] **Anker:2017:SBR**
Felix Anker, Christian Bayer, Martin Eigel, Marcel Ladjakau, Johannes Neumann, and John Schoenmakers. SDE based regression for linear random PDEs. *SIAM Journal on Scientific Computing*, 39(3):A1168–A1200, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABCR93] **Alpert:1993:WLB**
B. Alpert, G. Beylkin, R. Coifman, and V. Rokhlin. Wavelet-like bases for the fast solution of second-kind integral equations. *SIAM Journal on Scientific Computing*, 14(1):159–184, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABF96] **Al-Baali:1996:OCP**
M. Al-Baali and R. Fletcher. On the order of convergence

of preconditioned nonlinear conjugate gradient methods. *SIAM Journal on Scientific Computing*, 17(3): 658–665, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/19430>.

Adjerid:1999:PFE

[ABF99]

Slimane Adjerid, Belkacem Belguendouz, and Joseph E. Flaherty. A posteriori finite element error estimation for diffusion problems. *SIAM Journal on Scientific Computing*, 21(2):728–746, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30504>.

Abgrall:2009:CSS

[Abg09]

R. Abgrall. Construction of simple, stable, and convergent high order schemes for steady first order Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 31(4):2419–2446, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aksoylu:2003:OLR

[ABH03]

Burak Aksoylu, Stephen Bond, and Michael Holst. An odyssey into local refinement and multilevel pre-

conditioning III: Implementation and numerical experiments. *SIAM Journal on Scientific Computing*, 25(2):478–498, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40767>.

AlHassanieh:2022:LCB

[ABHS22]

Nour G. Al Hassanieh, Jeffrey W. Banks, William D. Henshaw, and Donald W. Schwendeman. Local compatibility boundary conditions for high-order accurate finite-difference approximations of PDEs. *SIAM Journal on Scientific Computing*, 44(6): A3645–A3672, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1458454>.

Averbuch:2000:PAS

[ABI00]

A. Averbuch, E. Braverman, and M. Israeli. Parallel adaptive solution of a Poisson equation with multiwavelets. *SIAM Journal on Scientific Computing*, 22(3):1053–1086, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33694>.

Ambikasaran:2016:FAH

[ABIGG16]

Sivaram Ambikasaran, Carlos Borges, Lise-Marie Imbert-Gerard, and Leslie Greengard. Fast, adaptive, high-order accurate discretization of the Lippmann–Schwinger equation in two dimensions. *SIAM Journal on Scientific Computing*, 38(3):A1770–A1787, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ammari:2020:WET

[ABIN20]

Habib Ammari, Oscar Bruno, Kthim Imeri, and Nilima Nigam. Wave enhancement through optimization of boundary conditions. *SIAM Journal on Scientific Computing*, 42(1):B207–B224, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Antoine:2011:ABC

[ABK11]

Xavier Antoine, Christophe Besse, and Pauline Klein. Absorbing boundary conditions for general nonlinear Schrödinger equations. *SIAM Journal on Scientific Computing*, 33(2):1008–1033, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p1008_s1

Adams:2016:SRM

[ABKS16]

Mark F. Adams, Jed Brown, Matt Knepley, and Ravi Samtaney. Segmental refinement: a multigrid technique for data locality. *SIAM Journal on Scientific Computing*, 38(4):C426–C440, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Anderson:2020:HOD

[ABL20a]

Thomas G. Anderson, Oscar P. Bruno, and Mark Lyon. High-order, dispersionless “fast-hybrid” wave equation solver. Part I: $O(1)$ sampling cost via incident-field windowing and recentering. *SIAM Journal on Scientific Computing*, 42(2):A1348–A1379, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Azad:2020:DMA[ABL⁺20b]

Ariful Azad, Aydin Buluç, Xiaoye S. Li, Xinliang Wang, and Johannes Langguth. A distributed-memory algorithm for computing a heavy-weight perfect matching on bipartite graphs. *SIAM Journal on Scientific Computing*, 42(4):C143–C168, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [ABLM17] **Amestoy:2017:CBL** Patrick Amestoy, Alfredo Buttari, Jean-Yves L'Excellent, and Theo Mary. On the complexity of the block low-rank multifrontal factorization. *SIAM Journal on Scientific Computing*, 39(4):A1710–A1740, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABLM19] **Amestoy:2019:BGB** Patrick R. Amestoy, Alfredo Buttari, Jean-Yves L'Excellent, and Theo A. Mary. Bridging the gap between flat and hierarchical low-rank matrix formats: The multilevel block low-rank format. *SIAM Journal on Scientific Computing*, 41(3):A1414–A1442, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABLS05] **Acebron:2005:DDS** Juan A. Acebrón, Maria Pia Busico, Piero Lanucara, and Renato Spigler. Domain decomposition solution of elliptic boundary-value problems via Monte Carlo and quasi-Monte Carlo methods. *SIAM Journal on Scientific Computing*, 27(2):440–457, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60069>.
- [ABM⁺13] **Adler:2013:ICU** J. H. Adler, M. Brezina, T. A. Manteuffel, S. F. McCormick, J. W. Ruge, and L. Tang. Island coalescence using parallel first-order system least squares on incompressible resistive magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 35(5):S171–S191, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ABMP22] **Antonietti:2022:HOD** Paola F. Antonietti, Michele Botti, Ilario Mazzieri, and Simone Nati Poltri. A high-order discontinuous Galerkin method for the poro-elasto-acoustic problem on polygonal and polyhedral grids. *SIAM Journal on Scientific Computing*, 44(1):B1–B28, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1410919>.
- [ABMR11] **Ahmed:2011:TOA** Shahnawaz Ahmed, Stanley Bak, Joyce McLaughlin, and Daniel Renzi. A third order accurate fast marching method for the eikonal equation in two dimensions. *SIAM Journal on Scientific Computing*, 33(5):2402–

2420, ????. 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2402_s1 [ABR17]

Allendes:2021:DFS

[ABN21] Alejandro Allendes, Gabriel R. Barrenechea, and Julia Novo. A divergence-free stabilized finite element method for the evolutionary Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 43(6):A3809–A3836, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aravkin:2018:GSI

[ABP18] Aleksandr Y. Aravkin, James V. Burke, and Gianluigi Pillonetto. Generalized system identification with stable spline kernels. *SIAM Journal on Scientific Computing*, 40(5):B1419–B1443, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Antolin:2021:OMI

[ABPW21] Pablo Antolin, Annalisa Buffa, Riccardo Puppi, and Xiaodong Wei. Overlapping multipatch isogeometric method with minimal stabilization. *SIAM Journal on Scientific Computing*, 43(1):A330–A354, ????. 2021. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Allendes:2017:FCE

Alejandro Allendes, Gabriel R. Barrenechea, and Richard Rankin. Fully computable error estimation of a nonlinear, positivity-preserving discretization of the convection-diffusion-reaction equation. *SIAM Journal on Scientific Computing*, 39(5):A1903–A1927, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Almgren:1996:NMI

Ann S. Almgren, John B. Bell, and William G. Szymczak. A numerical method for the incompressible Navier–Stokes equations based on an approximate projection. *SIAM Journal on Scientific Computing*, 17(2):358–369, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24421>.

Ali:2013:IAM

[ABST13] G. Ali, N. Banagaaya, W. H. A. Schilders, and C. Tischendorf. Index-aware model order reduction for linear index-2 DAEs with constant coefficients. *SIAM Journal on Scientific Computing*, 35(3):A1487–A1510,

- ???? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Adams:2005:CAM**
- [AC05] Haim Avron, Christos Bouras, Sivan Toledo, and Anas-tasios Zouzias. Efficient dimensionality reduction for canonical correlation analysis. *SIAM Journal on Scientific Computing*, 36(5):S111–S131, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Avron:2014:EDR**
- [ABTZ14] Haim Avron, Christos Bouras, Sivan Toledo, and Anas-tasios Zouzias. Efficient dimensionality reduction for canonical correlation analysis. *SIAM Journal on Scientific Computing*, 36(5):S111–S131, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Adams:2005:CAM**
- [AC95] Kendall E. Atkinson and David Chien. Piecewise polynomial collocation for boundary integral equations. *SIAM Journal on Scientific Computing*, 16(3):651–681, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Atkinson:1995:PPC**
- [AC08] Assyr Abdulle and Stephane Cirilli. S-ROCK: Chebyshev methods for stiff stochastic differential equations. *SIAM Journal on Scientific Computing*, 30(2):997–1014, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Abdulle:2008:RCM**
- [AC22] Ahmed Attia and Emil Constantinescu. Optimal experimental design for inverse problems in the presence of observation correlations. *SIAM Journal on Scientific Computing*, 44(4):A2808–A2842, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1418666>. **Attia:2022:OED**
- [AC04] Loyce Adams and Timothy P. Chartier. New geometric immersed interface multigrid solvers. *SIAM Journal on Scientific Computing*, 25(5):1516–1533, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42170>. **Adams:2004:NGI**

- [ACCO00] **Andersen:2000:EPD** Knud D. Andersen, Edmund Christiansen, Andrew R. Conn, and Michael L. Overton. An efficient primal-dual interior-point method for minimizing a sum of Euclidean norms. *SIAM Journal on Scientific Computing*, 22(1):243–262, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34395>. [ACD⁺08a]
- [ACCP13] **Aymard:2013:NMT** Benjamin Aymard, Frédérique Clément, Frédéric Coquel, and Marie Postel. A numerical method for transport equations with discontinuous flux functions: Application to mathematical modeling of cell dynamics. *SIAM Journal on Scientific Computing*, 35(6):A2442–A2468, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ACD⁺08b]
- [ACD95] **Arandiga:1995:FMA** Francesc Arandiga, Vicente F. Candela, and Rosa Donat. Fast multiresolution algorithms for solving linear equations: a comparative study. *SIAM Journal on Scientific Computing*, 16(3):581–600, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ACD23]
- Averbuch:2008:FDIa** A. Averbuch, R. R. Coifman, D. L. Donoho, M. Israeli, and Y. Shkolnisky. A framework for discrete integral transformations I — the pseudopolar Fourier transform. *SIAM Journal on Scientific Computing*, 30(2):764–784, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Averbuch:2008:FDIb** A. Averbuch, R. R. Coifman, D. L. Donoho, M. Israeli, Y. Shkolnisky, and I. Sedelnikov. A framework for discrete integral transformations II — the 2D discrete Radon transform. *SIAM Journal on Scientific Computing*, 30(2):785–803, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Anzt:2018:PNP** Hartwig Anzt, Edmond Chow, and Jack Dongarra. ParILUT — a new parallel threshold *ILU* factorization. *SIAM Journal on Scientific Computing*, 40(4):C503–C519, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ACD18]
- Adcock:2023:ASD** Ben Adcock, Juan M. Cardenas, and Nick Dexter. An

- adaptive sampling and domain learning strategy for multivariate function approximation on unknown domains. *SIAM Journal on Scientific Computing*, 45(1): A200–A225, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1472693>.
- [ACdS⁺11] Kapil Ahuja, Bryan K. Clark, Eric de Sturler, David M. Ceperley, and Jeongnim Kim. Improved scaling for quantum Monte Carlo on insulators. *SIAM Journal on Scientific Computing*, 33(4): 1837–1859, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjocce3/v33/i4/p1837_s1.
- [ACHN21] **Ahuja:2011:ISQ** Kapil Ahuja, Bryan K. Clark, Eric de Sturler, David M. Ceperley, and Jeongnim Kim. Improved scaling for quantum Monte Carlo on insulators. *SIAM Journal on Scientific Computing*, 33(4): 1837–1859, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjocce3/v33/i4/p1837_s1.
- [ACHZ21] **Astorino:2009:RBS** Matteo Astorino, Franz Chouly, and Miguel A. Fernández. Robin based semi-implicit coupling in fluid-structure interaction: Stability analysis and numerics. *SIAM Journal on Scientific Computing*, 31(6):4041–4065, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ACK19] **Alger:2020:TTC** Nick Alger, Peng Chen, and Omar Ghattas. Tensor train construction from tensor actions, with application to compression of large high order derivative tensors. *SIAM Journal on Scientific Computing*, 42(5):A3516–A3539, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ACHN21] **Audibert:2021:QIF** L. Audibert, L. Chesnel, H. Haddar, and K. Nepal. Qualitative indicator functions for imaging crack networks using acoustic waves. *SIAM Journal on Scientific Computing*, 43(2): B271–B297, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ACHZ21] **Adler:2021:FEF** James H. Adler, Casey Cavanaugh, Xiaozhe Hu, and Ludmil T. Zikatanov. A finite-element framework for a mimetic finite-difference discretization of Maxwell’s equations. *SIAM Journal on Scientific Computing*, 43(4): A2638–A2659, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ACF09] **Aulisa:2019:CRC** Eugenio Aulisa, Giacomo Capodaglio, and Guoyi Ke. Construction of H -refined continuous finite element

- spaces with arbitrary hanging node configurations and applications to multigrid algorithms. *SIAM Journal on Scientific Computing*, 41(1): A480–A507, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ACO98]
- [ACL09] M. Amara, D. Capatina, and L. Lizaik. Coupling of Darcy–Forchheimer and compressible Navier–Stokes equations with heat transfer. *SIAM Journal on Scientific Computing*, 31(2):1470–1499, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Amara:2009:CDF]
- [ACLZ15] Habib Ammari, Yat Tin Chow, Keji Liu, and Jun Zou. Optimal shape design by partial spectral data. *SIAM Journal on Scientific Computing*, 37(6):B855–B883, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ammari:2015:OSD]
- [ACN19] Harbir Antil, Yanlai Chen, and Akil Narayan. Reduced basis methods for fractional Laplace equations via extension. *SIAM Journal on Scientific Computing*, 41(6): A3552–A3575, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Antil:2019:RBM]
- [ACVZ12] Assyr Abdulle, David Cohen, Gilles Vilmart, and Konstantinos C. Zygalakis. High weak order methods for stochastic differential equations based on modified equations. *SIAM Journal on Scientific Computing*, 34(3): A1800–A1823, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Abdulle:2012:HWO]
- [ACW12] Mihai Anitescu, Jie Chen, and Lei Wang. A matrix-free approach for solving the parametric Gaussian process maximum likelihood problem. *SIAM Journal on Scientific Computing*, 34(1):A240–A262, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27530>. [Anitescu:2012:MFA]

- siam.org/sisc/resource/1/sjoc3/v34/i1/pA240_s1 [AD06]
- [ACW21] Anthony P. Austin, Noel Chalmers, and Tim Warburton. Initial guesses for sequences of linear systems in a GPU-accelerated incompressible flow solver. *SIAM Journal on Scientific Computing*, 43(4):C259–C289, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGY⁺20] Emmanuel Agullo, Siegfried Cools, Emrullah Fatih Yetkin, Luc Giraud, Nick Schenkels, and Wim Vanroose. On soft errors in the conjugate gradient method: Sensitivity and robust numerical detection. *SIAM Journal on Scientific Computing*, 42(6):C335–C358, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AD96] Chris Anderson and Marie Dillon Dahleh. Rapid computation of the discrete Fourier transform. *SIAM Journal on Scientific Computing*, 17(4):913–919, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AD15] [AD18a] **Agullo:2020:SEC**
- [AD07] **Arandiga:2007:STS**
- Francesc Aràndiga and Rosa Donat. Stability through synchronization in nonlinear multiscale transformations. *SIAM Journal on Scientific Computing*, 29(1):265–289, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AD15] **Arioli:2015:PLL**
- Mario Arioli and Iain S. Duff. Preconditioning linear least-squares problems by identifying a basis matrix. *SIAM Journal on Scientific Computing*, 37(5):S544–S561, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AD18a] **Aiton:2018:APU**
- Kevin W. Aiton and Tobin A. Driscoll. An adaptive partition of unity method for Chebyshev polynomial interpolation. *SIAM Journal on Scientific Computing*, 40(1):
- Arvanitis:2006:BFV**
- Ch. Arvanitis and A. I. Delis. Behavior of finite volume schemes for hyperbolic conservation laws on adaptive redistributed spatial grids. *SIAM Journal on Scientific Computing*, 28(5):1927–1956, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Austin:2021:IGS**

- A251–A265, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AD21]
- [AD18b] **Anderson:2018:AOS**
Daniel Anderson and Jérôme Droniou. An arbitrary-order scheme on generic meshes for miscible displacements in porous media. *SIAM Journal on Scientific Computing*, 40(4):B1020–B1054, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ADF⁺19]
- [AD19] **Aiton:2019:APU**
Kevin W. Aiton and Tobin A. Driscoll. An adaptive partition of unity method for multivariate Chebyshev polynomial approximations. *SIAM Journal on Scientific Computing*, 41(5):A3230–A3245, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AD20] **Aiton:2020:PNI**
Kevin W. Aiton and Tobin A. Driscoll. Preconditioned nonlinear iterations for overlapping Chebyshev discretizations with independent grids. *SIAM Journal on Scientific Computing*, 42(4):A2360–A2370, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ainsworth:2021:GNN**
Mark Ainsworth and Justin Dong. Galerkin neural networks: a framework for approximating variational equations with error control. *SIAM Journal on Scientific Computing*, 43(4):A2474–A2501, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Arnold:2019:CSS**
Douglas N. Arnold, Guy David, Marcel Filoche, David Jerison, and Svitlana Mayboroda. Computing spectra without solving eigenvalue problems. *SIAM Journal on Scientific Computing*, 41(1):B69–B92, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ADGM98] **Altas:1998:MSA**
Irfan Atlas, Jonathan Dym, Murli M. Gupta, and Ram P. Manohar. Multigrid solution of automatically generated high-order discretizations for the biharmonic equation. *SIAM Journal on Scientific Computing*, 19(5):1575–1585, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29697>.

- [ADGP07] **Arioli:2007:NGP** M. Arioli, I. S. Duff, S. Gratton, and S. Pralet. A note on GMRES preconditioned by a perturbed LDL^T decomposition with static pivoting. *SIAM Journal on Scientific Computing*, 29(5):2024–2044, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ADH99] **Arandiga:1999:MBW** Francesc Aràndiga, Rosa Donat, and Ami Harten. Multiresolution based on weighted averages of the hat function II: Nonlinear reconstruction techniques. *SIAM Journal on Scientific Computing*, 20(3):1053–1093, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30882>.
- [ADK⁺98] **Arbogast:1998:ECC** Todd Arbogast, Clint N. Dawson, Philip T. Keenan, Mary F. Wheeler, and Ivan Yotov. Enhanced cell-centered finite differences for elliptic equations on general geometry. *SIAM Journal on Scientific Computing*, 19(2):404–425, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26454>.
- [ADK⁺18] **Anderson:2018:HOM** Robert W. Anderson, Veselin A. Dobrev, Tzanio V. Kolev, Robert N. Rieben, and Vladimir Z. Tomov. High-order multi-material ALE hydrodynamics. *SIAM Journal on Scientific Computing*, 40(1):B32–B58, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ADKM03] **Akrivis:2003:NAB** G. D. Akrivis, V. A. Dougalis, O. A. Karakashian, and W. R. Mckinney. Numerical approximation of blow-up of radially symmetric solutions of the nonlinear Schrödinger equation. *SIAM Journal on Scientific Computing*, 25(1):186–212, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ADL⁺12] **Amestoy:2012:CIE** Patrick R. Amestoy, Iain S. Duff, Jean-Yves L’Excellent, Yves Robert, François-Henry Rouet, and Bora Uçar. On computing inverse entries of a sparse matrix in an out-of-core environment. *SIAM Journal on Scientific Computing*, 34(4):A1975–A1999, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- Amestoy:2015:PCE**
- [ADLR15] Patrick R. Amestoy, Iain S. Duff, Jean-Yves L'Excellent, and François-Henry Rouet. Parallel computation of entries of A^{-1} . *SIAM Journal on Scientific Computing*, 37(2):C268–C284, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Austin:2019:SSE**
- [ADLW19] Anthony P. Austin, Zichao Wendy Di, Sven Leyffer, and Stefan M. Wild. Simultaneous sensing error recovery and tomographic inversion using an optimization-based approach. *SIAM Journal on Scientific Computing*, 41(3):B497–B521, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Audusse:2010:OSW**
- [ADM10] E. Audusse, P. Dreyfuss, and B. Merlet. Optimized Schwarz waveform relaxation for the primitive equations of the ocean. *SIAM Journal on Scientific Computing*, 32(5):2908–2936, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Aubry:2015:ESB**
- [ADM⁺15] R. Aubry, S. Dey, E. Mestreau, K. Karamete, and D. Gayman. An entropy satisfying boundary layer surface mesh generation. *SIAM Journal on Scientific Computing*, 37(4):A1957–A1974, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Albi:2020:IEM**
- [ADP20] Giacomo Albi, Giacomo Dimarco, and Lorenzo Pareschi. Implicit-explicit multistep methods for hyperbolic systems with multiscale relaxation. *SIAM Journal on Scientific Computing*, 42(4):A2402–A2435, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Abgrall:2014:HOP**
- [ADR14] R. Abgrall, D. De Santis, and M. Ricchiuto. High-order preserving residual distribution schemes for advection-diffusion scalar problems on arbitrary grids. *SIAM Journal on Scientific Computing*, 36(3):A955–A983, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Arioli:1995:BLT**
- [ADRS95] Mario Arioli, Iain S. Duff, Daniel Ruiz, and Miloud Sadkane. Block Lanczos techniques for accelerating the block Cimmino method. *SIAM Journal on Scientific Computing*, 16(6):1478–1511, November 1995. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AdSK19]
- [ADS21] Harbir Antil, Patrick Dondl, and Ludwig Striet. Approximation of integral fractional Laplacian and fractional PDEs via sinc-basis. *SIAM Journal on Scientific Computing*, 43(4):A2897–A2922, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AdS22] Assyr Abdulle and Giacomo Rosillo de Souza. Explicit stabilized multirate method for stiff stochastic differential equations. *SIAM Journal on Scientific Computing*, 44(4):A1859–A1883, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1439018>.
- [AdSGC12] Kapil Ahuja, Eric de Sturler, Serkan Gugercin, and Eun R. Chang. Recycling BiCG with an application to model reduction. *SIAM Journal on Scientific Computing*, 34(4):A1925–A1949, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Aslan:2019:RAN] Selin S. Aslan, Eric de Sturler, and Misha E. Kilmer. Randomized approach to nonlinear inversion combining random and optimized simultaneous sources and detectors. *SIAM Journal on Scientific Computing*, 41(2):B229–B249, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Aeberhard:2000:NFA] S. Aeberhard, O. Y. de Vel, and D. H. Coomans. New fast algorithms for error rate-based stepwise variable selection in discriminant analysis. *SIAM Journal on Scientific Computing*, 22(3):1036–1052, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30078>.
- [Anaya:2020:RBM] Verónica Anaya, Zoa de Wijn, Bryan Gómez-Vargas, David Mora, and Ricardo Ruiz-Baier. Rotation-based mixed formulations for an elasticity-poroelasticity interface problem. *SIAM Journal on Scientific Computing*, 42(1):B225–B249, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AdVC00] S. Aeberhard, O. Y. de Vel, and D. H. Coomans. New fast algorithms for error rate-based stepwise variable selection in discriminant analysis. *SIAM Journal on Scientific Computing*, 22(3):1036–1052, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30078>.
- [AdWGV+20] Verónica Anaya, Zoa de Wijn, Bryan Gómez-Vargas, David Mora, and Ricardo Ruiz-Baier. Rotation-based mixed formulations for an elasticity-poroelasticity interface problem. *SIAM Journal on Scientific Computing*, 42(1):B225–B249, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AdWR17] **Acevedo:2017:SOA** Walter Acevedo, Jana de Wiljes, and Sebastian Reich. Second-order accurate ensemble transform particle filters. *SIAM Journal on Scientific Computing*, 39(5):A1834–A1850, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AE22]
- [AE95] **Andersson:1995:BCA** Lars-Erik Andersson and Tommy Elfving. Best constrained approximation in Hilbert space and interpolation by cubic splines subject to obstacles. *SIAM Journal on Scientific Computing*, 16(5):1209–1232, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AEFM17]
- [AE08] **Aarnes:2008:MMF** J. E. Aarnes and Y. Efendiev. Mixed multiscale finite element methods for stochastic porous media flows. *SIAM Journal on Scientific Computing*, 30(5):2319–2339, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AEMM16]
- [AE18] **AlMarzouk:2018:CBN** Afnan Al Marzouk and Bela Erdelyi. Collisional N -body numerical integrator with applications to charged particle dynamics. *SIAM Journal on Scientific Computing*, 40(6):B1517–B1540, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Anderson:2022:CMC]
- David F. Anderson and Kurt W. Ehlert. Conditional Monte Carlo for reaction networks. *SIAM Journal on Scientific Computing*, 44(2):A993–A1019, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M144267X>.
- Adler:2017:CDN** J. H. Adler, D. B. Emerson, P. E. Farrell, and S. P. MacLachlan. Combining deflation and nested iteration for computing multiple solutions of nonlinear variational problems. *SIAM Journal on Scientific Computing*, 39(1):B29–B52, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Adler:2016:COL** J. H. Adler, D. B. Emerson, S. P. MacLachlan, and T. A. Manteuffel. Constrained optimization for liquid crystal equilibria. *SIAM Journal on Scientific Computing*, 38(1):B50–B76, 2016. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [AF11] **Amsallem:2011:OMI** David Amsallem and Charbel Farhat. An online method for interpolating linear parametric reduced-order models. *SIAM Journal on Scientific Computing*, 33(5):2169–2198, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2169_s1
- [AF15] **Antunes:2015:ARM** Pedro R. S. Antunes and Rui A. C. Ferreira. An Augmented-RBF method for solving fractional Sturm–Liouville eigenvalue problems. *SIAM Journal on Scientific Computing*, 37(1):A515–A535, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AF22] **Anderson:2022:ENR** William Anderson and Mohammad Farazmand. Evolution of nonlinear reduced-order solutions for PDEs with conserved quantities. *SIAM Journal on Scientific Computing*, 44(1):A176–A197, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1415972>
- [AFF⁺15] **Ala:2015:MFS** G. Ala, G. Fasshauer, E. Francomano, S. Ganci, and M. McCourt. The method of fundamental solutions in solving coupled boundary value problems for M/EEG. *SIAM Journal on Scientific Computing*, 37(4):B570–B590, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AFK15] **Alla:2015:EPI** Alessandro Alla, Maurizio Falcone, and Dante Kalise. An efficient policy iteration algorithm for dynamic programming equations. *SIAM Journal on Scientific Computing*, 37(1):A181–A200, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AFMP15] **Artina:2015:AMA** Marco Artina, Massimo Fornasier, Stefano Micheletti, and Simona Perotto. Anisotropic mesh adaptation for crack detection in brittle materials. *SIAM Journal on Scientific Computing*, 37(4):B633–B659, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AFOQ19] **Allendes:2019:AFP** Alejandro Allendes, Francisco Fuica, Enrique Otárola, and

Daniel Quero. An adaptive FEM for the pointwise tracking optimal control problem of the Stokes equations. *SIAM Journal on Scientific Computing*, 41(5): A2967–A2998, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AG17b]

Antonietti:2019:DGA

[AFRV19] Paola F. Antonietti, Chiara Facciola, Alessandro Russo, and Marco Verani. Discontinuous Galerkin approximation of flows in fractured porous media on polytopic grids. *SIAM Journal on Scientific Computing*, 41(1): A109–A138, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AG18]

Alla:2019:EDA

[AFS19] Alessandro Alla, Maurizio Falcone, and Luca Saluzzi. An efficient DP algorithm on a tree-structure for finite horizon optimal control problems. *SIAM Journal on Scientific Computing*, 41(4): A2384–A2406, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AG21]

Ainsworth:2017:MMFb

[AG17a] Mark Ainsworth and Christian Glusa. Is the multigrid method fault tolerant? The multilevel case. *SIAM Jour-*

nal on Scientific Computing, 39(6):C393–C416, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ainsworth:2017:MMFa

Mark Ainsworth and Christian Glusa. Is the multigrid method fault tolerant? The two-grid case. *SIAM Journal on Scientific Computing*, 39(2):C116–C143, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ainsworth:2018:HFE

Mark Ainsworth and Christian Glusa. Hybrid finite element–spectral method for the fractional Laplacian: Approximation theory and efficient solver. *SIAM Journal on Scientific Computing*, 40(4):A2383–A2405, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Agress:2021:SEE

Daniel J. Agress and Patrick Q. Guidotti. The smooth extension embedding method. *SIAM Journal on Scientific Computing*, 43(1):A446–A471, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AGC96] **Abarbanel:1996:RBE**
 Saul Abarbanel, David Gottlieb, and Mark H. Carpenter. On the removal of boundary errors caused by Runge–Kutta integration of nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 17(3):777–782, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28252>.
- [AGH00] **Aves:2000:RKS**
 Mark A. Aves, David F. Griffiths, and Desmond J. Higham. Runge–Kutta solutions of a hyperbolic conservation law with source term. *SIAM Journal on Scientific Computing*, 22(1):20–38, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33601>.
- [AGH13] **Antonietti:2013:VCD**
 Paola F. Antonietti, Stefano Giani, and Paul Houston. *hp*-version composite discontinuous Galerkin methods for elliptic problems on complicated domains. *SIAM Journal on Scientific Computing*, 35(3):A1417–A1439, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGH+20] **Adler:2020:RPN**
 J. H. Adler, F. J. Gaspar, X. Hu, P. Ohm, C. Rodrigo, and L. T. Zikatanov. Robust preconditioners for a new stabilized discretization of the poroelastic equations. *SIAM Journal on Scientific Computing*, 42(3):B761–B791, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGHJ23] **Audibert:2023:IEC**
 Lorenzo Audibert, Hugo Girardon, Housseem Haddar, and Pierre Jolivet. Inversion of eddy-current signals using a level-set method and block Krylov solvers. *SIAM Journal on Scientific Computing*, 45(3):B366–B389, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1382064>.
- [AGI10] **Aboiyar:2010:AAM**
 Terhemen Aboiyar, Emmanuil H. Georgoulis, and Armin Iske. Adaptive ADER methods using kernel-based polyharmonic spline WENO reconstruction. *SIAM Journal on Scientific Computing*, 32(6):3251–3277, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AGI16] **Antoulas:2016:MRB**
 A. C. Antoulas, I. V. Gosea, and A. C. Ionita. Model reduction of bilinear systems in the Loewner framework. *SIAM Journal on Scientific Computing*, 38(5): B889–B916, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGL13] **Daas:2021:MSP**
 Hussam Al Daas, Laura Grigori, Pierre Jolivet, and Pierre-Henri Tournier. A multi-level Schwarz preconditioner based on a hierarchy of robust coarse spaces. *SIAM Journal on Scientific Computing*, 43(3):A1907–A1928, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGK18] **Alkamper:2018:WCC**
 Martin Alkämper, Fernando Gaspoz, and Robert Klöforn. A weak compatibility condition for newest vertex bisection in any dimension. *SIAM Journal on Scientific Computing*, 40(6):A3853–A3872, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGL10] **Agullo:2010:RVS**
 Emmanuel Agullo, Abdou Guermouche, and Jean-Yves L’Excellent. Reducing the I/O volume in sparse out-of-core multifrontal methods. *SIAM Journal on Scientific Computing*, 31(6):4774–4794, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGL13] **Arioli:2013:SCA**
 Mario Arioli, Emmanuil H. Georgoulis, and Daniel Loghin. Stopping criteria for adaptive finite element solvers. *SIAM Journal on Scientific Computing*, 35(3):A1537–A1559, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGPR19] **Arraras:2019:MDG**
 Andrés Arrarás, Francisco J. Gaspar, Laura Portero, and Carmen Rodrigo. Mixed-dimensional geometric multigrid methods for single-phase flow in fractured porous media. *SIAM Journal on Scientific Computing*, 41(5): B1082–B1114, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AGR⁺20a] **Abrishami:2020:GGP**
 Tara Abrishami, Nestor Guillen, Parker Rule, Zachary Schutzman, Justin Solomon, Thomas Weighill, and Si Wu. Geometry of graph partitions via optimal transport. *SIAM Journal on Scientific Computing*, 42(5):A3340–A3366, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AGR20b] **Appelo:2020:WIS**
Daniel Appelö, Fortino Garcia, and Olof Runborg. Wave-Holtz: Iterative solution of the Helmholtz equation via the wave equation. *SIAM Journal on Scientific Computing*, 42(4):A1950–A1983, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AH06]
- [AGSS19] **Adcock:2019:JSR**
Ben Adcock, Anne Gelb, Guohui Song, and Yi Sui. Joint sparse recovery based on variances. *SIAM Journal on Scientific Computing*, 41(1):A246–A268, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AH09]
- [AGSZ16] **Agullo:2016:IRS**
E. Agullo, L. Giraud, P. Salas, and M. Zounon. Interpolation–restart strategies for resilient eigensolvers. *SIAM Journal on Scientific Computing*, 38(5):C560–C583, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AH17]
- [AH04] **Arbenz:2004:JDM**
Peter Arbenz and Michiel E. Hochstenbach. A Jacobi–Davidson method for solving complex symmetric eigenvalue problems. *SIAM Journal on Scientific Computing*, 25(5):1655–1673, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41099>. [AH06]
- Arbogast:2006:FMV**
Todd Arbogast and Chieh-Sen Huang. A fully mass and volume conserving implementation of a characteristic method for transport problems. *SIAM Journal on Scientific Computing*, 28(6):2001–2022, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Appelo:2009:GPM**
Daniel Appelö and Thomas Hagstrom. A general perfectly matched layer model for hyperbolic-parabolic systems. *SIAM Journal on Scientific Computing*, 31(5):3301–3323, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Afkham:2017:SPM**
Babak Maboudi Afkham and Jan S. Hesthaven. Structure preserving model reduction of parametric Hamiltonian systems. *SIAM Journal on Scientific Computing*, 39(6):A2616–A2644, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AH18] **Abdi:2018:BRD** Ali Abdi and Seyyed Ahmad Hosseini. The barycentric rational difference-quadrature scheme for systems of Volterra integro-differential equations. *SIAM Journal on Scientific Computing*, 40(3):A1936–A1960, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHH06] **Ascher:2006:EMI** U. M. Ascher, E. Haber, and H. Huang. On effective methods for implicit piecewise smooth surface recovery. *SIAM Journal on Scientific Computing*, 28(1):339–358, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61726.html.
- [AH20] **Ali:2020:RBM** Ahmad Ahmad Ali and Michael Hinze. Reduced basis methods — an application to variational discretization of parametrized elliptic optimal control problems. *SIAM Journal on Scientific Computing*, 42(1):A271–A291, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHH12] **Arbogast:2012:FCE** Todd Arbogast, Chieh-Sen Huang, and Chen-Hui Hung. A fully conservative Eulerian–Lagrangian stream-tube method for advection-diffusion problems. *SIAM Journal on Scientific Computing*, 34(4):B447–B478, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHDK14] **Aoki:2014:CNM** Yasunori Aoki, Ken Hayami, Hans De Sterck, and Akihiko Konagaya. Cluster Newton method for sampling multiple solutions of underdetermined inverse problems: Application to a parameter identification problem in pharmacokinetics. *SIAM Journal on Scientific Computing*, 36(1):B14–B44, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHH⁺23] **Adler:2023:MMR** James H. Adler, Yunhui He, Xiaozhe Hu, Scott MacLachlan, and Peter Ohm. Monolithic multigrid for a reduced-quadrature discretization of poroelasticity. *SIAM Journal on Scientific Computing*, 45(3):S54–S81, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1429072>.

- [AHHR16] **Aupy:2016:OMA** Guillaume Aupy, Julien Herrmann, Paul Hovland, and Yves Robert. Optimal multistage algorithm for adjoint computation. *SIAM Journal on Scientific Computing*, 38(3):C232–C255, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHJS01] **Audet:2001:EAE** Charles Audet, Pierre Hansen, Brigitte Jaumard, and Gilles Savard. Enumeration of all extreme equilibria of bimatrix games. *SIAM Journal on Scientific Computing*, 23(1):323–338, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33908>.
- [AHK⁺17] **Adams:2017:LCI** Mark F. Adams, Eero Hirvijoki, Matthew G. Knepley, Jed Brown, Tobin Isaac, and Richard Mills. Landau collision integral solver with adaptive mesh refinement on emerging architectures. *SIAM Journal on Scientific Computing*, 39(6):C452–C465, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHR12] **Arbogast:2012:LCE** Todd Arbogast, Chieh-Sen Huang, and Thomas F. Russell. A locally conservative Eulerian–Lagrangian method for a model two-phase flow problem in a one-dimensional porous medium. *SIAM Journal on Scientific Computing*, 34(4):A1950–A1974, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHT12] **Allredge:2012:HOE** Graham W. Allredge, Cory D. Hauck, and André L. Tits. High-order entropy-based closures for linear transport in slab geometry II: a computational study of the optimization problem. *SIAM Journal on Scientific Computing*, 34(4):B361–B391, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHN⁺20] **AlMahbub:2020:CMM** Md. Abdullah Al Mahbub, Xiaoming He, Nasrin Jahan Nasu, Changxin Qiu, Yifan Wang, and Haibiao Zheng. A coupled multiphysics model and a decoupled stabilized finite element method for the closed-loop geothermal system. *SIAM Journal on Scientific Computing*, 42(4):B951–B982, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AHT17] **Arbogast:2017:MMT**
 Todd Arbogast, Marc A. Hesse, and Abraham L. Taicher. Mixed methods for two-phase Darcy–Stokes mixtures of partially melted materials with regions of zero porosity. *SIAM Journal on Scientific Computing*, 39(2): B375–B402, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHLV18] **Appelo:2018:HMS**
 Daniel Appelö, Thomas Hagstrom, and Arturo Vargas. Hermite methods for the scalar wave equation. *SIAM Journal on Scientific Computing*, 40(6):A3902–A3927, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AHZ17] **Adler:2017:RSM**
 J. H. Adler, X. Hu, and L. T. Zikatanov. Robust solvers for Maxwell’s equations with dissipative boundary conditions. *SIAM Journal on Scientific Computing*, 39(5):S3–S23, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AIL05] **Ammari:2005:TNM**
 Habib Ammari, Ekaterina Iakovleva, and Dominique Lesselier. Two numerical methods for recovering small inclusions from the scattering amplitude at a fixed frequency. *SIAM Journal on Scientific Computing*, 27(1):130–158, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/61251>.
- [AILP07] **Ammari:2007:MTE**
 Habib Ammari, Ekaterina Iakovleva, Dominique Lesselier, and Gaële Perrusson. MUSIC-type electromagnetic imaging of a collection of small three-dimensional inclusions. *SIAM Journal on Scientific Computing*, 29(2): 674–709, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ain96] **Ainsworth:1996:HDD**
 Mark Ainsworth. A hierarchical domain decomposition preconditioner for h - p finite element approximation on locally refined meshes. *SIAM Journal on Scientific Computing*, 17(6): 1395–1413, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27257>.
- [Ain07] **Ainsworth:2007:PEE**
 Mark Ainsworth. A posteriori error estimation for lowest

- order Raviart–Thomas mixed finite elements. *SIAM Journal on Scientific Computing*, 30(1):189–204, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AJ21]
- [Ain14] **Ainsworth:2014:PAB**
 Mark Ainsworth. Pyramid algorithms for Bernstein–Bézier finite elements of high, nonuniform order in any dimension. *SIAM Journal on Scientific Computing*, 36(2):A543–A569, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AIP19] **Abbate:2019:APA**
 Emanuela Abbate, Angelo Iollo, and Gabriella Puppo. An asymptotic-preserving all-speed scheme for fluid dynamics and nonlinear elasticity. *SIAM Journal on Scientific Computing*, 41(5):A2850–A2879, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AIV98] **Averbuch:1998:FPS**
 A. Averbuch, M. Israeli, and L. Vozovoi. A fast Poisson solver of arbitrary order accuracy in rectangular regions. *SIAM Journal on Scientific Computing*, 19(3):933–952, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28858>.
- Ainsworth:2021:PMM**
 Mark Ainsworth and Shuai Jiang. Preconditioning the mass matrix for high order finite element approximation on tetrahedra. *SIAM Journal on Scientific Computing*, 43(1):A384–A414, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AJ22a] **Ainsworth:2022:SAC**
 Mark Ainsworth and Shuai Jiang. A systematic approach to constructing preconditioners for the hp-version mass matrix on unstructured and hybrid finite element meshes. *SIAM Journal on Scientific Computing*, 44(2):A901–A934, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1382519>.
- [AJ22b] **AIDaas:2022:RAM**
 Hussam Al Daas and Pierre Jolivet. A robust algebraic multilevel domain decomposition preconditioner for sparse symmetric positive definite matrices. *SIAM Journal on Scientific Computing*, 44(4):A2582–A2598, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446320>.
- [AJR23] Hussam Al Daas, Pierre Jolivet, and Tyrone Rees. Efficient algebraic two-level Schwarz preconditioner for sparse matrices. *SIAM Journal on Scientific Computing*, 45(3):A1199–A1213, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1469833>.
- [AJS22] Hussam Al Daas, Pierre Jolivet, and Jennifer A. Scott. A robust algebraic domain decomposition preconditioner for sparse normal equations. *SIAM Journal on Scientific Computing*, 44(3):A1047–A1068, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434891>.
- [AK04] Jeanne A. Atwell and Belinda B. King. Reduced order controllers for spatially distributed systems via proper orthogonal decomposition. *SIAM Journal on Scientific Computing*, 26(1):128–151, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446320>.
- [AK09] Hussam Al Daas, Pierre Jolivet, and Tyrone Rees. Efficient algebraic two-level Schwarz preconditioner for sparse matrices. *SIAM Journal on Scientific Computing*, 31(3):1603–1627, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AK15] Gudmundur F. Adalsteinsson and Nicholas K.-R. Kevlahan. Compressive sampling for energy spectrum estimation of turbulent flows. *SIAM Journal on Scientific Computing*, 37(3):B452–B472, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AK17] Alessandro Alla and J. Nathan Kutz. Nonlinear model order reduction via dynamic mode decomposition. *SIAM Journal on Scientific Computing*, 39(5):B778–B796, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AKA13a] Seher Acer, Enver Kayaaslan, and Cevdet Aykanat. A recursive bipartitioning algorithm for permuting sparse
- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36009>.
- [AIDaas:2023:EAT]
- [Abgrall:2009:TLS]
- [Adalsteinsson:2015:CSE]
- [Alla:2017:NMO]
- [Acer:2013:RBA]

- square matrices into block diagonal form with overlap. *SIAM Journal on Scientific Computing*, 35(1):C99–C121, ????. 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AKK14]
- [AKA13b] **Akbudak:2013:HPB**
Kadir Akbudak, Enver Kayaaslan, and Cevdet Aykanat. Hypergraph partitioning based models and methods for exploiting cache locality in sparse matrix-vector multiplication. *SIAM Journal on Scientific Computing*, 35(3):C237–C262, ????. 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AKK18]
- [AKA19] **Acer:2019:HPM**
Seher Acer, Enver Kayaaslan, and Cevdet Aykanat. A hypergraph partitioning model for profile minimization. *SIAM Journal on Scientific Computing*, 41(1):A83–A108, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AKLP10]
- [AKBM21] **Anguiano:2021:SCM**
Marcelino Anguiano, Paul Kuberry, Pavel Bochev, and Arif Masud. Synchronous and concurrent multidomain computing method for cloud computing platforms. *SIAM Journal on Scientific Computing*, 43(5):S565–S591, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AKM⁺13]
- Adlerborn:2014:PQA**
Björn Adlerborn, Bo Kågström, and Daniel Kressner. A parallel QZ algorithm for distributed memory HPC systems. *SIAM Journal on Scientific Computing*, 36(5):C480–C503, ????. 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Adlerborn:2018:DOS]
- Adlerborn:2018:DOS**
Björn Adlerborn, Lars Karlsson, and Bo Kågström. Distributed one-stage Hessenberg-triangular reduction with wavefront scheduling. *SIAM Journal on Scientific Computing*, 40(2):C157–C180, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ammari:2010:AIP]
- Ammari:2010:AIP**
Habib Ammari, Hyeonbae Kang, Hyundae Lee, and Won-Kwang Park. Asymptotic imaging of perfectly conducting cracks. *SIAM Journal on Scientific Computing*, 32(2):894–922, ????. 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Aubry:2013:LSM]
- Aubry:2013:LSM**
R. Aubry, K. Karamete, E. Mestreau, S. Dey, and R. Löhner. Linear sources for

mesh generation. *SIAM Journal on Scientific Computing*, 35(2):A886–A907, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aravkin:2014:FMD

[AKM⁺14a] Aleksandr Aravkin, Rajiv Kumar, Hassan Mansour, Ben Recht, and Felix J. Herrmann. Fast methods for denoising matrix completion formulations, with applications to robust seismic data interpolation. *SIAM Journal on Scientific Computing*, 36(5):S237–S266, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Asadzadeh:2014:DOS

[AKM14b] M. Asadzadeh, E. Kazemi, and R. Mokhtari. Discrete-ordinates and streamline diffusion methods for a flow described by BGK model. *SIAM Journal on Scientific Computing*, 36(4):B729–B748, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Anaya:2022:RPE

[AKMRB22] Verónica Anaya, Arbaz Khan, David Mora, and Ricardo Ruiz-Baier. Robust a posteriori error analysis for rotation-based formulations of the elasticity/poroelasticity coupling. *SIAM Journal on*

Scientific Computing, 44(4):B964–B995, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427516>.

Are:2008:MIC

[AKPRB08] Sasanka Are, Markos A. Katsoulakis, Petr Plecháč, and Luc Rey-Bellet. Multi-body interactions in coarse-graining schemes for extended systems. *SIAM Journal on Scientific Computing*, 31(2):987–1015, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aksoylu:2005:MSU

[AKS05] Burak Aksoylu, Andrei Khodakovsky, and Peter Schröder. Multilevel solvers for unstructured surface meshes. *SIAM Journal on Scientific Computing*, 26(4):1146–1165, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43013>.

Ariel:2016:PMM

[AKT16] Gil Ariel, Seong Jun Kim, and Richard Tsai. Parareal multiscale methods for highly oscillatory dynamical systems. *SIAM Journal on Scientific Computing*, 38(6):A3540–A3564, 2016.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AL99a]
- [aKT18] **afKlinteberg:2018:AQE**
Ludvig af Klinteberg and Anna-Karin Tornberg. Adaptive quadrature by expansion for layer potential evaluation in two dimensions. *SIAM Journal on Scientific Computing*, 40(3):A1225–A1249, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AKW17] **Ainsworth:2017:CUL**
Mark Ainsworth, Scott Klasky, and Ben Whitney. Compression using lossless decimation: Analysis and application. *SIAM Journal on Scientific Computing*, 39(4):B732–B757, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AL99b]
- [AL97] **Ascher:1997:SRM**
Uri Ascher and Ping Lin. Sequential regularization methods for nonlinear higher-index DAEs. *SIAM Journal on Scientific Computing*, 18(1):160–181, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28777>. Dedicated to C. William Gear on the occasion of his 60th birthday.
- Anderson:1999:IEP**
Christopher R. Anderson and Archie C. Li. Integral equation preconditioning for the solution of Poisson’s equation on geometrically complex regions. *SIAM Journal on Scientific Computing*, 21(3):819–835, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32380>.
- Ascher:1999:SRM**
Uri Ascher and Ping Lin. Sequential regularization methods for simulating mechanical systems with many closed loops. *SIAM Journal on Scientific Computing*, 21(4):1244–1262, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31023>.
- [AL02] **Adams:2002:IIM**
Loyce Adams and Zhilin Li. The immersed interface/multigrid methods for interface problems. *SIAM Journal on Scientific Computing*, 24(2):463–479, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38984>.

Anitescu:2007:SLE

- [AL07] Mihai Anitescu and William J. Layton. Sensitivities in large eddy simulation and improved estimates of turbulent flow functionals. *SIAM Journal on Scientific Computing*, 29(4):1650–1667, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Amari:1999:PSI

- [ALJ99] T. Amari, J. F. Luciani, and P. Joly. A preconditioned semi-implicit method for magnetohydrodynamics equations. *SIAM Journal on Scientific Computing*, 21(3):970–986, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30482>.

Akrivis:2019:EDE

- [AL119] Georgios Akrivis, Buyang Li, and Dongfang li. Energy-decaying extrapolated RK–SAV methods for the Allen–Cahn and Cahn–Hilliard equations. *SIAM Journal on Scientific Computing*, 41(6):A3703–A3727, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aldoghaither:2015:MFB

- [ALLK15] Abeer Aldoghaither, Da-Yan Liu, and Taous-Meriem

Laleg-Kirati. Modulating functions based algorithm for the estimation of the coefficients and differentiation order for a space-fractional advection-dispersion equation. *SIAM Journal on Scientific Computing*, 37(6):A2813–A2839, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Amestoy:2019:ESM

- [ALM19] Patrick R. Amestoy, Jean-Yves L’Excellent, and Gilles Moreau. On exploiting sparsity of multiple right-hand sides in sparse direct solvers. *SIAM Journal on Scientific Computing*, 41(1):A269–A291, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Attia:2022:SLA

- [ALM22] Ahmed Attia, Sven Leyffer, and Todd S. Munson. Stochastic learning approach for binary optimization: Application to Bayesian optimal design of experiments. *SIAM Journal on Scientific Computing*, 44(2):B395–B427, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1404363>.

- Allen:2017:FBF**
- [ALMR17] Jeffery Allen, Chris Leibs, Tom Manteuffel, and Harihar Rajaram. A fluidity-based first-order system least-squares method for ice sheets. *SIAM Journal on Scientific Computing*, 39(2):B352–B374, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Abgrall:2020:MSG**
- [ALMT20] Rémi Abgrall, Konstantin Lipnikov, Nathaniel Morgan, and Svetlana Tokareva. Multidimensional staggered grid residual distribution scheme for Lagrangian hydrodynamics. *SIAM Journal on Scientific Computing*, 42(1):A343–A370, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Alpert:1999:HGT**
- [Alp99] Bradley K. Alpert. Hybrid Gauss-trapezoidal quadrature rules. *SIAM Journal on Scientific Computing*, 20(5):1551–1584, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32514>.
- Amat:2017:PWS**
- [ALRT17] Sergio Amat, Jacques Lian-drat, Juan Ruiz, and Juan C. Trillo. On a power WENO scheme with improved accuracy near discontinuities. *SIAM Journal on Scientific Computing*, 39(6):A2472–A2507, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Aubry:1993:PSP**
- [ALT93] Nadine Aubry, Wen Yu Lian, and Edriss S. Titi. Preserving symmetries in the proper orthogonal decomposition. *SIAM Journal on Scientific Computing*, 14(2):483–505, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Aluru:1996:GBA**
- [Alu96] Srinivas Aluru. Green-gard’s N -body algorithm is not order N . *SIAM Journal on Scientific Computing*, 17(3):773–776, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27203>.
- Aslam:2014:SPA**
- [ALZ14] Tariq Aslam, Songting Luo, and Hongkai Zhao. A static PDE approach for Multi-Dimensional extrapolation using fast sweeping methods. *SIAM Journal on Scientific Computing*, 36(6):A2907–A2928, 2014.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Amodio:1995:PGS

[AM17]

[AM95]

Pierluigi Amodio and Francesca Mazzia. A parallel Gauss–Seidel method for block tridiagonal linear systems. *SIAM Journal on Scientific Computing*, 16(6):1451–1461, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Abramov:2004:QUN

[AM18]

[AM04]

Rafail V. Abramov and Andrew J. Majda. Quantifying uncertainty for non-Gaussian ensembles in complex systems. *SIAM Journal on Scientific Computing*, 26(2):411–447, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42631>.

Atiya:2005:EEF

[AM05]

Amir F. Atiya and Steve A. K. Metwally. Efficient estimation of first passage time density function for jump-diffusion processes. *SIAM Journal on Scientific Computing*, 26(5):1760–1775, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41798>.

[/epubs.siam.org/sam-bin/dbq/article/41798](http://epubs.siam.org/sam-bin/dbq/article/41798).

Almquist:2017:MLT

Martin Almquist and Michaela Mehlin. MultiLevel local time-stepping methods of Runge–Kutta-type for wave equations. *SIAM Journal on Scientific Computing*, 39(5):A2020–A2048, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Al-Mohy:2018:TTS

Awad H. Al-Mohy. A truncated Taylor series algorithm for computing the action of trigonometric and hyperbolic matrix functions. *SIAM Journal on Scientific Computing*, 40(3):A1696–A1713, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Adjerid:2019:IDG

Slimane Adjerid and Kihyo Moon. An immersed discontinuous Galerkin method for acoustic wave propagation in inhomogeneous media. *SIAM Journal on Scientific Computing*, 41(1):A139–A162, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Antonietti:2020:AMS

Paola F. Antonietti and Laura Melas. Algebraic

multigrid schemes for high-order nodal discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 42(2):A1147–A1173, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Altmann:2022:DLD

[AM22]

Robert Altmann and Roland Maier. A decoupling and linearizing discretization for weakly coupled poroelasticity with nonlinear permeability. *SIAM Journal on Scientific Computing*, 44(3):B457–B478, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1413985>.

Amano:1998:CSM

[Ama98]

Kaname Amano. A charge simulation method for numerical conformal mapping onto circular and radial slit domains. *SIAM Journal on Scientific Computing*, 19(4):1169–1187, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29430>.

Averick:1994:CLS

[AMB⁺94]

Brett M. Averick, Jorge J. Moré, Christian H. Bischof, Alan Carle, and Andreas Griewank. Computing large

sparse Jacobian matrices using automatic differentiation. *SIAM Journal on Scientific Computing*, 15(2):285–294, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Al-Mohy:2011:CAM

[AMH11]

Awad H. Al-Mohy and Nicholas J. Higham. Computing the action of the matrix exponential, with an application to exponential integrators. *SIAM Journal on Scientific Computing*, 33(2):488–511, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p488_s1.

Al-Mohy:2012:IIS

[AMH12]

Awad H. Al-Mohy and Nicholas J. Higham. Improved inverse scaling and squaring algorithms for the matrix logarithm. *SIAM Journal on Scientific Computing*, 34(4):C153–C169, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Al-Mohy:2013:CFD

[AMHR13]

Awad H. Al-Mohy, Nicholas J. Higham, and Samuel D. Relton. Computing the Fréchet derivative of the matrix logarithm and estimating the condition number. *SIAM Jour-*

- nal on Scientific Computing*, 35(4):C394–C410, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AMM+11]
- [AMHR15] Awad H. Al-Mohy, Nicholas J. Higham, and Samuel D. Relton. New algorithms for computing the matrix sine and cosine separately or simultaneously. *SIAM Journal on Scientific Computing*, 37(1):A456–A487, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Amit94] Yali Amit. A nonlinear variational problem for image matching. *SIAM Journal on Scientific Computing*, 15(1):207–224, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AMM+10] J. H. Adler, T. A. Manteuffel, S. F. McCormick, J. W. Ruge, and G. D. Sanders. Nested iteration and first-order system least squares for incompressible, resistive magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 32(3):1506–1526, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AMN15]
- [Adler:2011:EBA] J. H. Adler, T. A. Manteuffel, S. F. McCormick, J. W. Ruge, and L. Tang. Efficiency based adaptive local refinement for first-order system least-squares formulations. *SIAM Journal on Scientific Computing*, 33(1):1–24, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p1_s1.
- [Adler:2010:FOS] J. H. Adler, T. A. Manteuffel, S. F. McCormick, and J. W. Ruge. First-order system least squares for incompressible resistive magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 32(1):229–248, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Aceto:2015:CPS] Lidia Aceto, Cecilia Magherini, and Paolo Novati. On the construction and properties of m -step methods for FDEs. *SIAM Journal on Scientific Computing*, 37(2):A653–A675, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Amit:1994:NVP] Yali Amit. A nonlinear variational problem for image matching. *SIAM Journal on Scientific Computing*, 15(1):207–224, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Adler:2010:NIF] J. H. Adler, T. A. Manteuffel, S. F. McCormick, J. W. Ruge, and G. D. Sanders. Nested iteration and first-order system least squares for incompressible, resistive magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 32(3):1506–1526, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AMP00] **Arnold:2000:LAT**
 Douglas N. Arnold, Arup Mukherjee, and Luc Pouly. Locally adapted tetrahedral meshes using bisection. *SIAM Journal on Scientific Computing*, 22(2):431–448, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32337>.
- [AMT10] **Avron:2010:BSL**
 Haim Avron, Petar Maimounkov, and Sivan Toledo. Blendenpik: Supercharging LAPACK’s least-squares solver. *SIAM Journal on Scientific Computing*, 32(3):1217–1236, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AMV22] **Aziz:2022:DIS**
 Rifqi Aziz, Emre Mengi, and Matthias Voigt. Derivative interpolating subspace frameworks for nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 44(4):A1833–A1858, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1348455>.
- [AMVR17] **Adcock:2017:ROE**
 Ben Adcock, Jesús Martín-Vaquero, and Mark Richard-
- son. Resolution-optimal exponential and double-exponential transform methods for functions with endpoint singularities. *SIAM Journal on Scientific Computing*, 39(1):A164–A187, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AN16] **Amsallem:2016:ESM**
 David Amsallem and Jan Nordström. Energy stable model reduction of neurons by nonnegative discrete empirical interpolation. *SIAM Journal on Scientific Computing*, 38(2):B297–B326, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AN17] **Aceto:2017:RAF**
 Lidia Aceto and Paolo Novati. Rational approximation to the fractional Laplacian operator in reaction–diffusion problems. *SIAM Journal on Scientific Computing*, 39(1):A214–A228, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [And99] **Anderson:1999:DAF**
 I. J. Anderson. A distillation algorithm for floating-point summation. *SIAM Journal on Scientific Computing*, 20(5):1797–1806, September 1999. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31420>.

Andersson:2008:SCM

[And08]

Anders Andersson. Schwarz–Christoffel mappings for non-polygonal regions. *SIAM Journal on Scientific Computing*, 31(1):94–111, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Andreev:2016:WTM

[And16]

Roman Andreev. Wavelet-in-time multigrid-in-space preconditioning of parabolic evolution equations. *SIAM Journal on Scientific Computing*, 38(1):A216–A242, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Andreev:2017:PAL

[And17]

Roman Andreev. Preconditioning the augmented Lagrangian method for instationary mean field games with diffusion. *SIAM Journal on Scientific Computing*, 39(6):A2763–A2783, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Anjos:1993:MBU

[Anj93]

Miguel F. Anjos. A modified Broyden update with interpolation. *SIAM Journal on Scientific Computing*, 14(6):

1359–1367, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Anile:2000:AHR

[ANP00]

A. Marcello Anile, Nikolaos Nikiforakis, and Rosa M. Piddatella. Assessment of a high resolution centered scheme for the solution of hydrodynamical semiconductor equations. *SIAM Journal on Scientific Computing*, 22(5):1533–1548, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36158>.

Antun:2022:RWC

[Ant22]

Vegard Antun. Recovering wavelet coefficients from binary samples using fast transforms. *SIAM Journal on Scientific Computing*, 44(3):A1315–A1336, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427188>.

Averick:1993:FSN

[AO93]

Brett M. Averick and James M. Ortega. Fast solution of nonlinear Poisson-type equations. *SIAM Journal on Scientific Computing*, 14(1):44–48, January 1993. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [AO07] Ariel Almendral and Cornelis W. Oosterlee. Accurate evaluation of European and American options under the CGMY process. *SIAM Journal on Scientific Computing*, 29(1):93–117, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AO17] Pedro R. S. Antunes and Édouard Oudet. Numerical minimization of Dirichlet Laplacian eigenvalues of four-dimensional geometries. *SIAM Journal on Scientific Computing*, 39(3):B508–B521, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AOR18] Alejandro Allendes, Enrique Otárola, and Richard Rankin. A posteriori error estimation for a PDE-constrained optimization problem involving the generalized Oseen equations. *SIAM Journal on Scientific Computing*, 40(4):A2200–A2233, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AORW20] **Almendral:2007:AEE** Akash Anand, Jeffrey S. Ovall, Samuel E. Reynolds, and Steffen Weißer. Trefftz finite elements on curvilinear polygons. *SIAM Journal on Scientific Computing*, 42(2):A1289–A1316, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AOS20] **Allendes:2020:PEE** Alejandro Allendes, Enrique Otárola, and Abner J. Salgado. A posteriori error estimates for the stationary Navier–Stokes equations with Dirac measures. *SIAM Journal on Scientific Computing*, 42(3):A1860–A1884, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AP93] **Ascher:1993:SCM** Uri M. Ascher and Linda R. Petzold. Stability of computational methods for constrained dynamics systems. *SIAM Journal on Scientific Computing*, 14(1):95–120, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AP97] **Amodio:1997:CRA** Pierluigi Amodio and Marcin Paprzycki. A cyclic reduction approach to the numerical solution of boundary

- value ODEs. *SIAM Journal on Scientific Computing*, 18(1):56–68, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28722>. Dedicated to C. William Gear on the occasion of his 60th birthday.
- [AP99] [AP14] **Axelsson:1999:AVA**
Owe Axelsson and Alexander Padiy. On the additive version of the algebraic multilevel iteration method for anisotropic elliptic problems. *SIAM Journal on Scientific Computing*, 20(5):1807–1830, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32005>.
- [AP01] **Aranda:2001:CRO**
Ernesto Aranda and Pablo Pedregal. On the computation of the rank-one convex hull of a function. *SIAM Journal on Scientific Computing*, 22(5):1772–1790, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36202>.
- [AP12] **Appelo:2012:FOA**
Daniel Appelö and N. Anders Petersson. A fourth-order accurate embedded boundary method for the wave equation. *SIAM Journal on Scientific Computing*, 34(6):A2982–A3008, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Albin:2014:DPE**
Nathan Albin and Sureka Pathmanathan. Discrete periodic extension using an approximate step function. *SIAM Journal on Scientific Computing*, 36(2):A668–A692, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Altmann:2019:LCE**
R. Altmann and D. Peterseim. Localized computation of eigenstates of random Schrödinger operators. *SIAM Journal on Scientific Computing*, 41(6):B1211–B1227, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Aykanat:2004:PSR**
Cevdet Aykanat, Ali Pinar, and Ümit V. Çatalyürek. Permuting sparse rectangular matrices into block-diagonal form. *SIAM Journal on Scientific Computing*, 25(6):1860–1879, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [APÇ04]

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40195>.

Akrivis:2012:CSD

[APSG12]

G. Akrivis, D. T. Papa-georgiou, and Y.-S. Smyrlis. Computational study of the dispersively modified Kuramoto–Sivashinsky equation. *SIAM Journal on Scientific Computing*, 34(2):A792–A813, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Alexanderian:2014:ODE

[APSG14]

Alen Alexanderian, Noemi Petra, Georg Stadler, and Omar Ghattas. A -optimal design of experiments for infinite-dimensional Bayesian linear inverse problems with regularized ℓ_0 -sparsification. *SIAM Journal on Scientific Computing*, 36(5):A2122–A2148, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Alexanderian:2016:FSM

[APSG16]

Alen Alexanderian, Noemi Petra, Georg Stadler, and Omar Ghattas. A fast and scalable method for A -optimal design of experiments for infinite-dimensional Bayesian nonlinear inverse problems. *SIAM Journal on Scientific Computing*, 38(1):A243–A272, 2016. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aktulga:2013:RMD

[APvDG12]

Hasan Metin Aktulga, Sagar A. Pandit, Adri C. T. van Duin, and Ananth Y. Grama. Reactive molecular dynamics: Numerical methods and algorithmic techniques. *SIAM Journal on Scientific Computing*, 34(1):C1–C23, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pC1_s1.

Adler:2013:NAA

[APZ13]

J. H. Adler, V. Petkov, and L. T. Zikatanov. Numerical approximation of asymptotically disappearing solutions of Maxwell’s equations. *SIAM Journal on Scientific Computing*, 35(5):S386–S401, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ascher:1999:MSV

[AR99]

Uri M. Ascher and Sebastian Reich. The midpoint scheme and variants for Hamiltonian systems: Advantages and pitfalls. *SIAM Journal on Scientific Computing*, 21(3):1045–1065, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/31605.

Alger:2019:SMF

- [ARM⁺19] Nick Alger, Vishwas Rao, Aaron Myers, Tan Bui-Thanh, and Omar Ghattas. Scalable matrix-free adaptive product-convolution approximation for locally translation-invariant operators. *SIAM Journal on Scientific Computing*, 41(4):A2296–A2328, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Azaiez:2023:NAP

- [ARM23] Mejdi Azaiez, Tomás Chacón Rebollo, and Isabel Sánchez Muñoz. Numerical approximation of PGD modes to parameterized elliptic problems. *SIAM Journal on Scientific Computing*, 45(5):A2207–A2225, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1505037>.

Abdel-Rehim:2010:DRS

- [ARMNW10] Abdou M. Abdel-Rehim, Ronald B. Morgan, Dwayne A. Nicely, and Walter Wilcox. Deflated and restarted symmetric Lanczos methods for eigenvalues and linear equations with multiple right-hand sides. *SIAM Journal on Scientific Com-*

puting, 32(1):129–149, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

AlDaas:2021:TLN

- [ARS21] Hussam Al Daas, Tyrone Rees, and Jennifer Scott. Two-level Nyström–Schur preconditioner for sparse symmetric positive definite matrices. *SIAM Journal on Scientific Computing*, 43(6):A3837–A3861, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Arun:2012:NST

- [Aru12] K. R. Arun. A numerical scheme for three-dimensional front propagation and control of Jordan mode. *SIAM Journal on Scientific Computing*, 34(2):B148–B178, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Alvarado:1993:OPS

- [AS93] Fernando L. Alvarado and Robert Schreiber. Optimal parallel solution of sparse triangular systems. *SIAM Journal on Scientific Computing*, 14(2):446–460, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ascher:1994:CSB

- [AS94] Uri M. Ascher and Raymond J. Spiteri. Collocation

- software for boundary value differential-algebraic equations. *SIAM Journal on Scientific Computing*, 15(4): 938–952, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AS18]
- [AS05] Robert Artebrant and H. Joachim Schroll. Conservative logarithmic reconstructions and finite volume methods. *SIAM Journal on Scientific Computing*, 27(1):294–314, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60240>. [AS21]
- [AS06] Robert Artebrant and H. Joachim Schroll. Limiter-free third order logarithmic reconstruction. *SIAM Journal on Scientific Computing*, 28(1):359–381, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62018.html. [AS22]
- [AS16] Mark Ainsworth and Manuel A. Sánchez. Computing the Bézier control points of the Lagrangian interpolant in arbitrary dimension. *SIAM Journal on Scientific Computing*, 38(3):A1682–A1700, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [AS18]
- Alexanderian:2018:EOD**
- Alen Alexanderian and Arvind K. Saibaba. Efficient D -optimal design of experiments for infinite-dimensional Bayesian linear inverse problems. *SIAM Journal on Scientific Computing*, 40(5): A2956–A2985, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ainsworth:2021:PPG**
- Mark Ainsworth and Yeonjong Shin. Plateau phenomenon in gradient descent training of RELU networks: Explanation, quantification, and avoidance. *SIAM Journal on Scientific Computing*, 43(5):A3438–A3468, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ainsworth:2022:ANL**
- Mark Ainsworth and Yeonjong Shin. Active neuron least squares: a training method for multivariate rectified neural networks. *SIAM Journal on Scientific Computing*, 44(4):A2253–A2275, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1460764>.

- [Ash95] **Ashcraft:1995:CGM**
 Cleve Ashcraft. Compressed graphs and the minimum degree algorithm. *SIAM Journal on Scientific Computing*, 16(6):1404–1411, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ASR+23] **Ahmed:2023:PGM**
 Shady E. Ahmed, Omer San, Adil Rasheed, Traian Iliescu, and Alessandro Veneziani. Physics guided machine learning for variational multiscale reduced order modeling. *SIAM Journal on Scientific Computing*, 45(3):B283–B313, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1496360>.
- [ASS16] **Averbuch:2016:DIT**
 Amir Averbuch, Gil Shabat, and Yoel Shkolnisky. Direct inversion of the three-dimensional pseudo-polar Fourier transform. *SIAM Journal on Scientific Computing*, 38(2):A1100–A1120, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ASZ07] **Andersson:2007:EAO**
 Lars-Erik Andersson, Neil F. Stewart, and Malika Zidani. Error analysis for operations in solid modeling in the presence of uncertainty. *SIAM Journal on Scientific Computing*, 29(2):811–826, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AT15] **Austin:2015:CER**
 Anthony P. Austin and Lloyd N. Trefethen. Computing eigenvalues of real symmetric matrices with rational filters in real arithmetic. *SIAM Journal on Scientific Computing*, 37(3):A1365–A1387, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AT17] **Abgrall:2017:SGR**
 Rémi Abgrall and Svetlana Tokareva. Staggered grid residual distribution scheme for Lagrangian hydrodynamics. *SIAM Journal on Scientific Computing*, 39(5):A2317–A2344, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AT19] **Anand:2019:FEB**
 Akash Anand and Awanish K. Tiwari. A Fourier extension based numerical integration scheme for fast and high-order approximation of convolutions with weakly singular kernels. *SIAM Journal on Scientific Computing*, 41(5):A2772–A2794, 2019.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ATK12]
- [AT20] **Abgrall:2020:HOA**
 Rémi Abgrall and Davide Torlo. High order asymptotic preserving deferred correction implicit-explicit schemes for kinetic models. *SIAM Journal on Scientific Computing*, 42(3):B816–B845, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ATV07]
- [AT23] **Azulay:2023:MAD**
 Yael Azulay and Eran Treister. Multigrid-augmented deep learning preconditioners for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 45(3):S127–S151, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1433514>. [ATWK19a]
- [Atk94] **Atkinson:1994:TGI**
 Kendall E. Atkinson. Two-grid iteration methods for linear integral equations of the second kind on piecewise smooth surfaces in \mathbf{R}^3 . *SIAM Journal on Scientific Computing*, 15(5):1083–1104, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ATWK19b]
- Asner:2012:ABP**
 Liya Asner, Simon Tavener, and David Kay. Adjoint-based a posteriori error estimation for coupled time-dependent systems. *SIAM Journal on Scientific Computing*, 34(4):A2394–A2419, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Andriulli:2007:MAE**
 F. P. Andriulli, A. Tabacco, and G. Vecchi. A multiresolution approach to the electric field integral equation in antenna problems. *SIAM Journal on Scientific Computing*, 29(1):1–21, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ainsworth:2019:MTCa**
 Mark Ainsworth, Ozan Tugluk, Ben Whitney, and Scott Klasky. Multilevel techniques for compression and reduction of scientific data — the multivariate case. *SIAM Journal on Scientific Computing*, 41(2):A1278–A1303, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ainsworth:2019:MTCb**
 Mark Ainsworth, Ozan Tugluk, Ben Whitney, and Scott Klasky. Multilevel techniques for compression and

reduction of scientific data-quantitative control of accuracy in derived quantities. *SIAM Journal on Scientific Computing*, 41(4):A2146–A2171, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ainsworth:2020:MTC

[ATWK20]

Mark Ainsworth, Ozan Tugluk, Ben Whitney, and Scott Klasky. Multilevel techniques for compression and reduction of scientific data — the unstructured case. *SIAM Journal on Scientific Computing*, 42(2):A1402–A1427, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Adler:2014:EAC

[AV14]

J. H. Adler and P. S. Vassilevski. Error analysis for constrained first-order system least-squares finite-element methods. *SIAM Journal on Scientific Computing*, 36(3):A1071–A1088, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Almuslimani:2021:ESI

[AV21]

Ibrahim Almuslimani and Gilles Vilmart. Explicit stabilized integrators for stiff optimal control problems. *SIAM Journal on Scientific Computing*, 43(2):A721–A743, 2021. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Alger:2017:DSA

[AVBTG17]

Nick Alger, Umberto Villa, Tan Bui-Thanh, and Omar Ghattas. A data scalable augmented Lagrangian KKT preconditioner for large-scale inverse problems. *SIAM Journal on Scientific Computing*, 39(5):A2365–A2393, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Aurentz:2013:FCZ

[AVW13]

Jared L. Aurentz, Raf Vandebril, and David S. Watkins. Fast computation of the zeros of a polynomial via factorization of the companion matrix. *SIAM Journal on Scientific Computing*, 35(1):A255–A269, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Abdulle:2013:WSO

[AVZ13]

Assyr Abdulle, Gilles Vilmart, and Konstantinos C. Zygalakis. Weak second order explicit stabilized methods for stiff stochastic differential equations. *SIAM Journal on Scientific Computing*, 35(4):A1792–A1814, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [AW11] **Arbogast:2011:SMM**
 Todd Arbogast and Wen-Hao Wang. Stability, monotonicity, maximum and minimum principles, and implementation of the volume corrected characteristic method. *SIAM Journal on Scientific Computing*, 33(4):1549–1573, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1549_s1
- [AW15] **Amrein:2015:FAN**
 Mario Amrein and Thomas P. Wihler. Fully adaptive Newton–Galerkin methods for semilinear elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 37(4):A1637–A1657, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AW20] **Alhawwary:2020:CMF**
 Mohammad Alhawwary and Zhijian Wang. A combined-mode Fourier analysis of DG methods for linear parabolic problems. *SIAM Journal on Scientific Computing*, 42(6):A3825–A3858, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AW21] **An:2021:LHG**
 Congpei An and Hao-Ning Wu. Lasso hyperinterpolation
- [AWA⁺18] **Arampatzis:2018:LDP**
 Georgios Arampatzis, Daniel Wälchli, Panagiotis Angelikopoulos, Stephen Wu, Panagiotis Hadjidoukas, and Petros Koumoutsakos. Langevin diffusion for population based sampling with an application in Bayesian inference for pharmacodynamics. *SIAM Journal on Scientific Computing*, 40(3):B788–B811, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AWW19] **Almquist:2019:OPI**
 Martin Almquist, Siyang Wang, and Jonatan Werpers. Order-preserving interpolation for summation-by-parts operators at nonconforming grid interfaces. *SIAM Journal on Scientific Computing*, 41(2):A1201–A1227, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [AY23] **Avnat:2023:RSM**
 Or Avnat and Irad Yavneh. On the recursive structure of multigrid cycles. *SIAM Journal on Scientific Computing*, 45(3):S103–S126, 2023.
- over general regions. *SIAM Journal on Scientific Computing*, 43(6):A3967–A3991, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1433502>. [BAFF00]
- Babuska:2005:SMT**
- [BA05] Ivo Babuska and Börje Andersson. The splitting method as a tool for multiple damage analysis. *SIAM Journal on Scientific Computing*, 26(4):1114–1145, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41716>. [Bal00]
- Ben-Artzi:2008:FDS**
- [BACF08] Matania Ben-Artzi, Jean-Pierre Croisille, and Dalia Fishelov. A fast direct solver for the biharmonic problem in a rectangular grid. *SIAM Journal on Scientific Computing*, 31(1):303–333, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ban08a]
- Baddoo:2021:AAR**
- [Bad21] Peter J. Baddoo. The AAA-trig algorithm for rational approximation of periodic functions. *SIAM Journal on Scientific Computing*, 43(5):A3372–A3392, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ban08b]
- Ben-Artzi:2000:RHR**
- M. Ben-Artzi, J. Falcovitz, and U. Feldman. Remarks on high-resolution split schemes computation. *SIAM Journal on Scientific Computing*, 22(3):1008–1015, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34524>.
- Ball:2000:ACZ**
- James S. Ball. Automatic computation of zeros of Bessel functions and other special functions. *SIAM Journal on Scientific Computing*, 21(4):1458–1464, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33907>.
- Bangerth:2008:FAF**
- Wolfgang Bangerth. A framework for the adaptive finite element solution of large-scale inverse problems. *SIAM Journal on Scientific Computing*, 30(6):2965–2989, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Banjai:2008:RCP**
- L. Banjai. Revisiting the crowding phenomenon in Schwarz–Christoffel mapping. *SIAM Journal on*

- [Bar05] *Scientific Computing*, 30(2): 618–636, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ban10] Lehel Banjai. Multistep and multistage convolution quadrature for the wave equation: Algorithms and experiments. *SIAM Journal on Scientific Computing*, 32(5): 2964–2994, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bar99] Piero Barone. Fast deconvolution by a two-step method. *SIAM Journal on Scientific Computing*, 21(3): 883–899, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30710>.
- [Bar00] Roberto Barrio. Parallel algorithms to evaluate orthogonal polynomial series. *SIAM Journal on Scientific Computing*, 21(6): 2225–2239, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34049>.
- [Bar14] Roberto Barrio. Sensitivity analysis of ODES/DAES using the Taylor series method. *SIAM Journal on Scientific Computing*, 27(6):1929–1947, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60189.html.
- [Bar12a] Johnathan M. Bardsley. MCMC-based image reconstruction with uncertainty quantification. *SIAM Journal on Scientific Computing*, 34(3):A1316–A1332, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bar12b] Piero Barone. A diffusion equation for the density of the ratio of two jointly distributed Gaussian variables and the exponential analysis problem. *SIAM Journal on Scientific Computing*, 34(2):A1053–A1078, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bar14] Alex H. Barnett. Evaluation of layer potentials close to the boundary for Laplace and Helmholtz problems on analytic planar do-

- mains. *SIAM Journal on Scientific Computing*, 36(2): A427–A451, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB03]
- Bastian:1998:LBA**
- [Bas98] Peter Bastian. Load balancing for adaptive multigrid methods. *SIAM Journal on Scientific Computing*, 19(4):1303–1321, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29756>. [BB05]
- Bieri:2009:STD**
- [BAS09] Marcel Bieri, Roman Andreev, and Christoph Schwab. Sparse tensor discretization of elliptic sPDEs. *SIAM Journal on Scientific Computing*, 31(6):4281–4304, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB08a]
- Burrage:2002:VSI**
- [BB02] P. M. Burrage and K. Burrage. A variable stepsize implementation for stochastic differential equations. *SIAM Journal on Scientific Computing*, 24(3):848–864, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37692>. [BB08b]
- Borzi:2003:AMM**
- Alfio Borzi and Giuseppe Borzi. An algebraic multigrid method for a class of elliptic differential systems. *SIAM Journal on Scientific Computing*, 25(1):302–323, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Blanes:2005:AGI**
- S. Blanes and C. J. Budd. Adaptive geometric integrators for Hamiltonian problems with approximate scale invariance. *SIAM Journal on Scientific Computing*, 26(4):1089–1113, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41663>.
- Baur:2008:GBM**
- Ulrike Baur and Peter Benner. Gramian-based model reduction for data-sparse systems. *SIAM Journal on Scientific Computing*, 31(1):776–798, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bonito:2008:CIP**
- Andrea Bonito and Erik Burman. A continuous interior penalty method for viscoelastic flows. *SIAM Journal on Scientific Computing*, 30(3):

- 1156–1177, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB15a]
- [BB09] Tyson Brochu and Robert Bridson. Robust topological operations for dynamic explicit surfaces. *SIAM Journal on Scientific Computing*, 31(4):2472–2493, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB15b]
- [BB10] A. H. Barnett and T. Betcke. An exponentially convergent nonpolynomial finite element method for time-harmonic scattering from polygons. *SIAM Journal on Scientific Computing*, 32(3):1417–1441, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB15c]
- [BB13] Santiago Badia and Joan Baiges. Adaptive finite element simulation of incompressible flows by hybrid continuous-discontinuous Galerkin formulations. *SIAM Journal on Scientific Computing*, 35(1):A491–A516, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BB17]
- Benitez:2015:SOP**
- Marta Benítez and Alfredo Bermúdez. Second-order pure Lagrange–Galerkin methods for fluid-structure interaction problems. *SIAM Journal on Scientific Computing*, 37(5):B744–B777, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Benner:2015:TSP**
- Peter Benner and Tobias Breiten. Two-sided projection methods for nonlinear model order reduction. *SIAM Journal on Scientific Computing*, 37(2):B239–B260, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bittner:2015:FAA**
- Kai Bittner and Hans Georg Brachtendorf. Fast algorithms for adaptive free knot spline approximation using nonuniform biorthogonal spline wavelets. *SIAM Journal on Scientific Computing*, 37(2):B283–B304, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Baiges:2017:REL**
- Joan Baiges and Camilo Bayona. Refficientlib: an efficient load-rebalanced adaptive mesh refinement algorithm for high-performance

computational physics meshes. *SIAM Journal on Scientific Computing*, 39(2):C65–C95, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bolten:2011:BAM

- [BBB⁺11] Matthias Bolten, Achi Brandt, James Brannick, Andreas Frommer, Karsten Kahl, and Ira Livshits. A bootstrap algebraic multilevel method for Markov chains. *SIAM Journal on Scientific Computing*, 33(6):3425–3446, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3425_s1

Barrenechea:2014:FEE

- [BBB14] G. R. Barrenechea, L. Boulton, and N. Boussaïd. Finite element eigenvalue enclosures for the Maxwell operator. *SIAM Journal on Scientific Computing*, 36(6):A2887–A2906, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Baur:2011:IPM

- [BBBG11] Ulrike Baur, Christopher Beattie, Peter Benner, and Serkan Gugercin. Interpolatory projection methods for parameterized model reduction. *SIAM Journal on Scientific Computing*, 33(5):2489–

2518, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2489_s1

Bajaj:2013:NFT

Chandrajit Bajaj, Benedikt Bauer, Radhakrishna Bettadapura, and Antje Vollrath. Nonuniform Fourier transforms for rigid-body and multidimensional rotational correlations. *SIAM Journal on Scientific Computing*, 35(4):B821–B845, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Barinka:2001:AWS

Arne Barinka, Titus Barsch, Philippe Charton, Albert Cohen, Stephan Dahlke, Wolfgang Dahmen, and Karsten Urban. Adaptive wavelet schemes for elliptic problems — implementation and numerical experiments. *SIAM Journal on Scientific Computing*, 23(3):910–939, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36550>.

Bottasso:2007:TSS

- [BBC07] Carlo L. Bottasso, Olivier A. Bauchau, and Alberto Cardona. Time-step-size-independent

conditioning and sensitivity to perturbations in the numerical solution of index three differential algebraic equations. *SIAM Journal on Scientific Computing*, 29(1): 397–414, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bennett:2016:TDA

[BBC⁺16]

Janine C. Bennett, Ankit Bhagatwala, Jacqueline H. Chen, Ali Pinar, Maher Saloum, and C. Seshadhri. Trigger detection for adaptive scientific workflows using percentile sampling. *SIAM Journal on Scientific Computing*, 38(5):S240–S263, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Beck:2021:DSM

[BBC⁺21a]

Christian Beck, Sebastian Becker, Patrick Cheridito, Arnulf Jentzen, and Ariel Neufeld. Deep splitting method for parabolic PDEs. *SIAM Journal on Scientific Computing*, 43(5):A3135–A3154, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boso:2021:DDD

[BBC⁺21b]

Francesca Boso, Dimitris Boskos, Jorge Cortés, Sonia Martínez, and Daniel M. Tartakovsky. Dynamics of data-

driven ambiguity sets for hyperbolic conservation laws with uncertain inputs. *SIAM Journal on Scientific Computing*, 43(3):A2102–A2129, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boffi:2016:NHO

Daniele Boffi, Michele Botti, and Daniele A. Di Pietro. A nonconforming high-order method for the Biot problem on general meshes. *SIAM Journal on Scientific Computing*, 38(3):A1508–A1537, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bosner:2018:PSS

[BBD18]

Nela Bosner, Zvonimir Bujanović, and Zlatko Drmac. Parallel solver for shifted systems in a hybrid CPU–GPU framework. *SIAM Journal on Scientific Computing*, 40(4): C605–C633, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Berthon:2022:VEH

[BBF⁺22]

Christophe Berthon, Solène Bulteau, Françoise Foucher, Meissa M’Baye, and Victor Michel-Dansac. A very easy high-order well-balanced reconstruction for hyperbolic systems with source terms. *SIAM Journal on Scientific Computing*, 44(4):

A2506–A2535, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1429230>.

Bernaschi:2016:FSA

[BBFJ16]

Massimo Bernaschi, Mauro Bisson, Carlo Fantozzi, and Carlo Janna. A factored sparse approximate inverse preconditioned conjugate gradient solver on graphics processing units. *SIAM Journal on Scientific Computing*, 38(1):C53–C72, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bradley:2019:CEP

[BBG⁺19]

Andrew M. Bradley, Peter A. Bosler, Oksana Guba, Mark A. Taylor, and Gregory A. Barnett. Communication-efficient property preservation in tracer transport. *SIAM Journal on Scientific Computing*, 41(3):C161–C193, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Barth:2004:TCS

[BBGS04]

Teri Barth, Pavel Bochev, Max Gunzburger, and John Shadid. A taxonomy of consistently stabilized finite element methods for the Stokes problem. *SIAM Journal on Scientific Computing*, 25(5):

1585–1607, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40771>.

Bartel:2013:DIC

[BBGS13]

Andreas Bartel, Markus Brunk, Michael Günther, and Sebastian Schöps. Dynamic iteration for coupled problems of electric circuits and distributed devices. *SIAM Journal on Scientific Computing*, 35(2):B315–B335, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Berzins:2016:EUUF

[BBH⁺16]

Martin Berzins, Jacqueline Beckvermit, Todd Harman, Andrew Bezdjian, Alan Humphrey, Qingyu Meng, John Schmidt, and Charles Wight. Extending the Uintah framework through the petascale modeling of detonation in arrays of high explosive devices. *SIAM Journal on Scientific Computing*, 38(5):S101–S122, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Baumann:2018:STG

[BBH18]

Manuel Baumann, Peter Benner, and Jan Heiland. Space-time Galerkin POD with application in optimal control

- of semilinear partial differential equations. *SIAM Journal on Scientific Computing*, 40(3):A1611–A1641, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BBK21]
- [BBH20] Ana Budisa, Wietse M. Boon, and Xiaozhe Hu. Mixed-dimensional auxiliary space preconditioners. *SIAM Journal on Scientific Computing*, 42(5):A3367–A3396, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBHJ21] J. W. Banks, B. Brett Buckner, T. Hagstrom, and K. Juhnke. Discontinuous Galerkin Galerkin differences for the wave equation in second-order form. *SIAM Journal on Scientific Computing*, 43(2):A1497–A1526, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBK06] Alexander M. Bronstein, Michael M. Bronstein, and Ron Kimmel. Efficient computation of isometry-invariant distances between surfaces. *SIAM Journal on Scientific Computing*, 28(5):1812–1836, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BBK21]
- [BBK11] Wasilij Barsukow, Jonas P. Berberich, and Christian Klingenberg. On the active flux scheme for hyperbolic PDEs with source terms. *SIAM Journal on Scientific Computing*, 43(6):A4015–A4042, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Barsukow:2021:AFS]
- [BBKK97] Anil K. Bangia, Paul F. Batcho, Ioannis G. Kevrekidis, and George Em. Karniadakis. Unsteady two-dimensional flows in complex geometries: Comparative bifurcation studies with global eigenfunction expansions. *SIAM Journal on Scientific Computing*, 18(3):775–805, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28224>. [Bangia:1997:UTD]
- [BBK11] A. Brandt, J. Brannick, K. Kahl, and I. Livshits. Bootstrap AMG. *SIAM Journal on Scientific Computing*, 33(2):612–632, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://> [Brandt:2011:BA]

- epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p612_s1. [BBM⁺08]
- [BBKS20] Peter Benner, Zvonimir Bujanović, Patrick Kürschner, and Jens Saak. A numerical comparison of different solvers for large-scale, continuous-time algebraic Riccati equations and LQR problems. *SIAM Journal on Scientific Computing*, 42(2):A957–A996, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBKT15] Lorenz Berger, Rafel Bordas, David Kay, and Simon Tavener. Stabilized lowest-order finite element approximation for linear three-field poroelasticity. *SIAM Journal on Scientific Computing*, 37(5):A2222–A2245, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBKW19] Niall Bootland, Alistair Bentley, Christopher Kees, and Andrew Wathen. Preconditioners for two-phase incompressible Navier–Stokes flow. *SIAM Journal on Scientific Computing*, 41(4):B843–B869, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Brenk:2008:NSP] Markus Brenk, Hans-Joachim Bungartz, Miriam Mehl, Ioan L. Muntean, Tobias Neckel, and Tobias Weinzierl. Numerical simulation of particle transport in a drift ratchet. *SIAM Journal on Scientific Computing*, 30(6):2777–2798, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bellavia:2011:NPU] Stefania Bellavia, Daniele Bertaccini, and Benedetta Morini. Nonsymmetric preconditioner updates in Newton–Krylov methods for nonlinear systems. *SIAM Journal on Scientific Computing*, 33(5):2595–2619, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2595_s1.
- [Boscarino:2015:LII] Sebastiano Boscarino, Raimund Bürger, Pep Mulet, Giovanni Russo, and Luis M. Villada. Linearly implicit IMEX Runge–Kutta methods for a class of degenerate convection-diffusion problems. *SIAM Journal on Scientific Computing*, 37(2):B305–B331, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BBMR03] **Bouillault:2003:MEE**
 F. Bouillault, A. Buffa, Y. Maday, and F. Rapetti. The mortar edge element method in three dimensions: Application to magnetostatics. *SIAM Journal on Scientific Computing*, 24(4):1303–1327, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38600>.
- [BBMZ20] **Baeza:2020:ETO**
 Antonio Baeza, Raimund Bürger, Pep Mulet, and David Zorío. An efficient third-order WENO scheme with unconditionally optimal accuracy. *SIAM Journal on Scientific Computing*, 42(2):A1028–A1051, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBO09] **Bourdin:2009:OPE**
 Blaise Bourdin, Dorin Bucur, and Édouard Oudet. Optimal partitions for eigenvalues. *SIAM Journal on Scientific Computing*, 31(6):4100–4114, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBP13] **Banas:2013:CSS**
 Lubomír Banas, Zdzisław Brzeźniak, and Andreas Prohl. Computational studies for the stochastic Landau–Lifshitz–Gilbert equation. *SIAM Journal on Scientific Computing*, 35(1):B62–B81, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBP21] **Baglama:2021:HIR**
 James Baglama, Tom Bella, and Jennifer Picucci. Hybrid iterative refined method for computing a few extreme eigenpairs of a symmetric matrix. *SIAM Journal on Scientific Computing*, 43(5):S200–S224, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BBR04] **Bischof:2004:SAT**
 Christian H. Bischof, H. Martin Bucker, and Arno Rasch. Sensitivity analysis of turbulence models using automatic differentiation. *SIAM Journal on Scientific Computing*, 26(2):510–522, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42672>.
- [BBR08] **Bucker:2008:PMN**
 H. Martin Bucker, Roland Beucker, and André Rupp. Parallel minimum p -norm solution of the neuromagnetic inverse problem for realistic signals using exact Hessian-

vector products. *SIAM Journal on Scientific Computing*, 30(6):2905–2921, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Betcke:2019:BEM

[BBS19]

Timo Betcke, Erik Burman, and Matthew W. Scroggs. Boundary element methods with weakly imposed boundary conditions. *SIAM Journal on Scientific Computing*, 41(3):A1357–A1384, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Betcke:2022:BEM

[BBS22]

Timo Betcke, Erik Burman, and Matthew W. Scroggs. Boundary element methods for Helmholtz problems with weakly imposed boundary conditions. *SIAM Journal on Scientific Computing*, 44(5):A2895–A2917, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1334802>.

Bader:2010:DAS

[BBSV10]

Michael Bader, Christian Böck, Johannes Schwaiger, and Csaba Vigh. Dynamically adaptive simulations with minimal memory requirement — solving the shallow water equations using Sierpinski curves. *SIAM*

Journal on Scientific Computing, 32(1):212–228, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bell:1994:TDA

[BBSW94]

John Bell, Marsha Berger, Jeff Saltzman, and Mike Welcome. Three-dimensional adaptive mesh refinement for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 15(1):127–138, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bansch:2015:RBB

[BBSW15]

Eberhard Bänsch, Peter Benner, Jens Saak, and Heiko K. Weichelt. Riccati-based boundary feedback stabilization of incompressible Navier–Stokes flows. *SIAM Journal on Scientific Computing*, 37(2):A832–A858, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bacak:2016:SON

[BBSW16]

Miroslav Bacák, Ronny Bergmann, Gabriele Steidl, and Andreas Weinmann. A second order nonsmooth variational model for restoring manifold-valued images. *SIAM Journal on Scientific Computing*, 38(1):A567–A597, 2016. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Braack:2011:DBP

[BBT11]

M. Braack, E. Burman, and N. Taschenberger. Duality based *A Posteriori* error estimation for quasi-periodic solutions using time averages. *SIAM Journal on Scientific Computing*, 33(5): 2199–2216, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i5/p2199_s1

Bosler:2019:CMT

[BBT19]

Peter A. Bosler, Andrew M. Bradley, and Mark A. Taylor. Conservative multimoment transport along characteristics for discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 41(4):B870–B902, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brezinski:1999:MIS

[BC99]

C. Brezinski and J.-P. Chehab. Multiparameter iterative schemes for the solution of systems of linear and nonlinear equations. *SIAM Journal on Scientific Computing*, 20(6): 2140–2159, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v20/i6/p2140_s1

[/epubs.siam.org/sam-bin/dbq/article/31370](http://epubs.siam.org/sam-bin/dbq/article/31370).

Beylkin:2002:MAR

[BC02]

Gregory Beylkin and Robert Cramer. A multiresolution approach to regularization of singular operators and fast summation. *SIAM Journal on Scientific Computing*, 24(1):81–117, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37922>.

Beilina:2006:AHF

[BC06]

Larisa Beilina and Christian Clason. An adaptive hybrid FEM/FDM method for an inverse scattering problem in scanning acoustic microscopy. *SIAM Journal on Scientific Computing*, 28(1): 382–402, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63125.html.

Brugnano:2008:ISP

Luigi Brugnano and Vincenzo Casulli. Iterative solution of piecewise linear systems. *SIAM Journal on Scientific Computing*, 30(1): 463–472, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BC09a] **Bermejo:2009:STA**
 R. Bermejo and J. Carpio. A space–time adaptive finite element algorithm based on dual weighted residual methodology for parabolic equations. *SIAM Journal on Scientific Computing*, 31(5): 3324–3355, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BC09b] **Brugnano:2009:ISP**
 Luigi Brugnano and Vincenzo Casulli. Iterative solution of piecewise linear systems and applications to flows in porous media. *SIAM Journal on Scientific Computing*, 31(3):1858–1873, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BC10] **Barker:2010:TLN**
 Andrew T. Barker and Xiao-Chuan Cai. Two-level Newton and hybrid Schwarz preconditioners for fluid-structure interaction. *SIAM Journal on Scientific Computing*, 32(4):2395–2417, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BC13] **Bock:2013:OSA**
 Nicolas Bock and Matt Chalmers. An optimized sparse approximate matrix multiply for matrices with decay.
- [BCAG22] **Badia:2022:WCW**
 Ismail Badia, Boris Caudron, Xavier Antoine, and Christophe Geuzaine. A well-conditioned weak coupling of boundary element and high-order finite element methods for time-harmonic electromagnetic scattering by inhomogeneous objects. *SIAM Journal on Scientific Computing*, 44(3):B640–B667, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1438293>.
- [BCC⁺15] **Benamou:2015:IBP**
 Jean-David Benamou, Guillaume Carlier, Marco Cuturi, Luca Nenna, and Gabriel Peyré. Iterative Bregman projections for regularized transportation problems. *SIAM Journal on Scientific Computing*, 37(2): A1111–A1138, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCC20] **Bernier:2020:SMR**
 Joackim Bernier, Fernando Casas, and Nicolas Crouseilles. Splitting methods for rotations: Application
- SIAM Journal on Scientific Computing*, 35(1):C72–C98, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- to Vlasov equations. *SIAM Journal on Scientific Computing*, 42(2):A666–A697, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCCI98] J. M. Banoczi, Nan-Chieh Chiu, Grace E. Cho, and Ilse C. F. Ipsen. The lack of influence of the right-hand side on the accuracy of linear system solution. *SIAM Journal on Scientific Computing*, 20(1):203–227, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30526>.
- [BCCX21] **Banoczi:1998:LIR** J. M. Banoczi, Nan-Chieh Chiu, Grace E. Cho, and Ilse C. F. Ipsen. The lack of influence of the right-hand side on the accuracy of linear system solution. *SIAM Journal on Scientific Computing*, 42(2):A666–A697, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCCX21] **Banoczi:1998:LIR** J. M. Banoczi, Nan-Chieh Chiu, Grace E. Cho, and Ilse C. F. Ipsen. The lack of influence of the right-hand side on the accuracy of linear system solution. *SIAM Journal on Scientific Computing*, 42(2):A666–A697, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCKK16] Olivier Bodart, Valérie Cayol, Sébastien Court, and Jonas Koko. XFEM-based fictitious domain method for linear elasticity model with crack. *SIAM Journal on Scientific Computing*, 38(2):B219–B246, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCCSS21] **Bodart:2016:XB** Olivier Bodart, Valérie Cayol, Sébastien Court, and Jonas Koko. XFEM-based fictitious domain method for linear elasticity model with crack. *SIAM Journal on Scientific Computing*, 38(2):B219–B246, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCdF+20] **Blanes:2021:SPS** S. Blanes, M. P. Calvo, F. Casas, and J. M. Sanz-Serna. Symmetrically processed splitting integrators for enhanced Hamiltonian Monte Carlo sampling. *SIAM Journal on Scientific Computing*, 43(5):A3357–A3371, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCCX21] **Britton:2021:RTD** Jolene Britton, Yat Tin Chow, Weitao Chen, and Yulong Xing. Recovery of a time-dependent bottom topography function from the shallow water equations via an adjoint approach. *SIAM Journal on Scientific Computing*, 43(4):A2981–A3008, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCDE21] **Burman:2021:UHH** Erik Burman, Matteo Cicuttin, Guillaume Delay, and Alexandre Ern. An unfitted hybrid high-order method with cell agglomeration for elliptic interface problems. *SIAM Journal on Scientific Computing*, 43(2):A859–A882, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCdF+20] **Buffa:2020:IMC** Annalisa Buffa, Jacopo Corno, Carlo de Falco, Sebastian Schöps, and Rafael Vázquez Hernández. Isogeometric mortar coupling for electromagnetic problems. *SIAM Journal on Scientific Computing*, 42(1):B80–B104, 2020. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Brezina:2000:AMB

[BCF⁺00]

M. Brezina, A. J. Cleary, R. D. Falgout, V. E. Henson, J. E. Jones, T. A. Mantuffel, S. F. McCormick, and J. W. Ruge. Algebraic multigrid based on element interpolation (AMGe). *SIAM Journal on Scientific Computing*, 22(5):1570–1592, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34430>.

Benettin:2001:CCS

[BCF01]

Giancarlo Benettin, Anna Maria Cherubini, and Francesco Fassò. A changing-chart symplectic algorithm for rigid bodies and other Hamiltonian systems on manifolds. *SIAM Journal on Scientific Computing*, 23(4):1189–1203, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38172>.

Bessemoulin-Chatard:2012:FVS

[BCF12]

Marianne Bessemoulin-Chatard and Francis Filbet. A finite volume scheme for nonlinear degenerate parabolic equations. *SIAM Journal on Scientific Computing*, 34(5):

B559–B583, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bertoglio:2013:FSS

[BCF13]

Cristóbal Bertoglio, Alfonso Caiazzo, and Miguel A. Fernández. Fractional-step schemes for the coupling of distributed and lumped models in hemodynamics. *SIAM Journal on Scientific Computing*, 35(3):B551–B575, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bernaschi:2019:DPF

Massimo Bernaschi, Mauro Carrozzo, Andrea Franceschini, and Carlo Janna. A dynamic pattern factored sparse approximate inverse preconditioner on graphics processing units. *SIAM Journal on Scientific Computing*, 41(3):C139–C160, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bresch:2010:CMS

[BCG⁺10]

Didier Bresch, Thierry Colin, Emmanuel Grenier, Benjamin Ribba, and Olivier Saut. Computational modeling of solid tumor growth: The avascular stage. *SIAM Journal on Scientific Computing*, 32(4):2321–2344, 2010. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Baglama:1998:APG

[BCGR98]

J. Baglama, D. Calvetti, G. H. Golub, and L. Reichel. Adaptively preconditioned GMRES algorithms. *SIAM Journal on Scientific Computing*, 20(1):243–269, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30525>.

Bourgeois:2012:SIS

[BCH12]

Laurent Bourgeois, Nicolas Chaulet, and Houssein Hadjar. On simultaneous identification of the shape and generalized impedance boundary condition in obstacle scattering. *SIAM Journal on Scientific Computing*, 34(3):A1824–A1848, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bergmann:2022:SOA

[BCI22]

Michel Bergmann, Michele Giuliano Carlino, and Angelo Iollo. Second order ADER scheme for unsteady advection-diffusion on moving overset grids with a compact transmission condition. *SIAM Journal on Scientific Computing*, 44(1):A524–A553, 2022. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1393911>.

Beskos:2021:SBP

[BCJ⁺21]

Alexandros Beskos, Dan Crisan, Ajay Jasra, Nikolas Kantas, and Hamza Ruzaqat. Score-based parameter estimation for a class of continuous-time state space models. *SIAM Journal on Scientific Computing*, 43(4):A2555–A2580, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bock:2016:SES

[BCK16]

Nicolas Bock, Matt Challacombe, and Laxmikant V. Kalé. Solvers for $\mathcal{O}(\mathcal{N})$ electronic structure in the strong scaling limit. *SIAM Journal on Scientific Computing*, 38(1):C1–C21, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brannick:2018:OIC

James Brannick, Fei Cao, Karsten Kahl, Robert D. Falgout, and Xiaozhe Hu. Optimal interpolation and compatible relaxation in classical algebraic multigrid. *SIAM Journal on Scientific Computing*, 40(3):A1473–A1493, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BCK21] **Bian:2021:AAC**
Wei Bian, Xiaojun Chen, and C. T. Kelley. Anderson acceleration for a class of nonsmooth fixed-point problems. *SIAM Journal on Scientific Computing*, 43(5): S1–S20, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCK22] **Borm:2022:STG**
Steffen Börm, Sven Christophersen, and Ronald Kriemann. SemiAutomatic task graph construction for \mathcal{H} -matrix arithmetic. *SIAM Journal on Scientific Computing*, 44(2):C77–C98, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1318808>.
- [BCL99] **Branch:1999:SIC**
Mary Ann Branch, Thomas F. Coleman, and Yuying Li. A subspace, interior, and conjugate gradient method for large-scale bound-constrained minimization problems. *SIAM Journal on Scientific Computing*, 21(1):1–23, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28910>.
- [BCLC97] **Batten:1997:CWH**
P. Batten, N. Clarke, C. Lam-
- [BCLT15] **Becker:2015:SFE**
Roland Becker, Daniela Capatina, Robert Luce, and David Trujillo. Stabilized finite element formulation with domain decomposition for incompressible flows. *SIAM Journal on Scientific Computing*, 37(3):A1270–A1296, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCM05] **Blanes:2005:CMD**
S. Blanes, F. Casas, and A. Murua. Composition methods for differential equations with processing. *SIAM Journal on Scientific Computing*, 27(6):1817–1843, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60122.html.
- [BCM11] **Blanes:2011:EAS**
Sergio Blanes, Fernando Casas, and Ander Murua. Error analysis of splitting
- bert, and D. M. Causon. On the choice of wavespeeds for the HLLC Riemann solver. *SIAM Journal on Scientific Computing*, 18(6): 1553–1570, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26014>.

- methods for the time dependent Schrödinger equation. *SIAM Journal on Scientific Computing*, 33(4):1525–1548, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1525_s1 [BCM15a]
- Boileau:2015:RNC**
- M. Boileau, C. Chalons, and M. Massot. Robust numerical coupling of pressure and pressureless gas dynamics equations for Eulerian spray DNS and LES. *SIAM Journal on Scientific Computing*, 37(1):B79–B102, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Burman:2015:SCF**
- [BCM15b] Erik Burman, Susanne Claus, and André Massing. A stabilized cut finite element method for the three field Stokes problem. *SIAM Journal on Scientific Computing*, 37(4):A1705–A1726, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bru:2003:PSN**
- [BCMM03] R. Bru, J. Cerdán, J. Marín, and J. Mas. Preconditioning sparse nonsymmetric linear systems with the Sherman–Morrison formula. *SIAM Journal on Scientific Computing*, 25(2):701–715, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40752>.
- Bardsley:2020:SOB**
- [BCM15a] Johnathan M. Bardsley, Tiangang Cui, Youssef M. Marzouk, and Zheng Wang. Scalable optimization-based sampling on function space. *SIAM Journal on Scientific Computing*, 42(2):A1317–A1347, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bonettini:2015:SGP**
- [BCP15] S. Bonettini, A. Chiuso, and M. Prato. A scaled gradient projection method for Bayesian learning in dynamical systems. *SIAM Journal on Scientific Computing*, 37(3):A1297–A1318, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Blanes:1999:SIP**
- [BCR99] S. Blanes, F. Casas, and J. Ros. Symplectic integration with processing: a general study. *SIAM Journal on Scientific Computing*, 21(2):711–727, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/33249.

Baglama:2003:IIR

[BCR03]

J. Baglama, D. Calvetti, and L. Reichel. IRBL: An implicitly restarted block-Lanczos method for large-scale Hermitian eigenproblems. *SIAM Journal on Scientific Computing*, 24(5):1650–1677, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39794>.

Bajaj:2011:EHO

[BCR11]

Chandrajit Bajaj, Shun-Chuan Chen, and Alexander Rand. An efficient higher-order fast multipole boundary element solution for Poisson–Boltzmann-based molecular electrostatics. *SIAM Journal on Scientific Computing*, 33(2):826–848, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p826_s1.

Bai:2007:DOA

[BCS07]

Zheng-Jian Bai, Delin Chu, and Defeng Sun. A dual optimization approach to inverse quadratic eigenvalue problems with partial eigenstructure. *SIAM Journal on Scientific Computing*, 29(6):2531–2561, 2007. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bokanowski:2011:DGS

[BCS11]

Olivier Bokanowski, Yingda Cheng, and Chi-Wang Shu. A discontinuous Galerkin solver for front propagation. *SIAM Journal on Scientific Computing*, 33(2):923–938, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p923_s1.

Blanes:2014:NIH

[BCSS14]

Sergio Blanes, Fernando Casas, and J. M. Sanz-Serna. Numerical integrators for the hybrid Monte Carlo method. *SIAM Journal on Scientific Computing*, 36(4):A1556–A1580, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benzi:2000:RAI

[BCT00]

Michele Benzi, Jane K. Cullum, and Miroslav Tuma. Robust approximate inverse preconditioning for the conjugate gradient method. *SIAM Journal on Scientific Computing*, 22(4):1318–1332, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- epubs.siam.org/sam-bin/dbq/article/35690.
- [BCT05] Michaël Baudin, Frédéric Coquel, and Quang-Huy Tran. A semi-implicit relaxation scheme for modeling two-phase flow in a pipeline. *SIAM Journal on Scientific Computing*, 27(3):914–936, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60162.html.
- [BCT07] Zheng-Jian Bai, Delin Chu, and Roger C. E. Tan. Computing the nearest doubly stochastic matrix with a prescribed entry. *SIAM Journal on Scientific Computing*, 29(2):635–655, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCV13] Raimund Bürger, Christophe Chalons, and Luis M. Villada. Antidiffusive and random-sampling Lagrangian-remap schemes for the multiclass Lighthill–Whitham–Richards traffic model. *SIAM Journal on Scientific Computing*, 35(6):B1341–B1368, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BCY21] **Baudin:2005:SIR** James Bremer, Ze Chen, and Haizhao Yang. Rapid application of the spherical harmonic transform via interpolative decomposition butterfly factorization. *SIAM Journal on Scientific Computing*, 43(6):A3789–A3808, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BD93] **Bai:1993:CGS** Zhao Jun Bai and James W. Demmel. Computing the generalized singular value decomposition. *SIAM Journal on Scientific Computing*, 14(6):1464–1486, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BD99a] **Brandt:1999:FCM** A. Brandt and J. Dym. Fast calculation of multiple line integrals. *SIAM Journal on Scientific Computing*, 20(4):1417–1429, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28571>.
- [BD99b] **Brandt:1999:MSN** Achi Brandt and Boris Diskin. Multigrid solvers for nonaligned sonic flows. *SIAM Journal on Scientific Computing*, 21(2):473–

501, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33220>.

Bao:2004:CGS

[BD04]

Weizhu Bao and Qiang Du. Computing the ground state solution of Bose–Einstein condensates by a normalized gradient flow. *SIAM Journal on Scientific Computing*, 25(5):1674–1697, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42295>.

Buchholz:2005:BSP

[BD05]

Peter Buchholz and Tugrul Dayar. Block SOR preconditioned projection methods for Kronecker structured Markovian representations. *SIAM Journal on Scientific Computing*, 26(4):1289–1313, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42588>.

Bolten:2023:SSC

[BD23]

Matthias Bolten and Hans De Sterck. Special section: 2021 Copper Mountain Conference. *SIAM Journal on Scientific Comput-*

ing, 45(3):Si, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/23M1572404>.

Bai:1997:SDN

[BDD⁺97]

Z. Bai, J. Demmel, J. Dongarra, A. Petitet, H. Robinson, and K. Stanley. The spectral decomposition of nonsymmetric matrices on distributed memory parallel computers. *SIAM Journal on Scientific Computing*, 18(5):1446–1461, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28136>.

Bellavia:2011:EPU

[BDdSM11]

Stefania Bellavia, Valentina De Simone, Daniela di Serafino, and Benedetta Morini. Efficient preconditioner updates for shifted linear systems. *SIAM Journal on Scientific Computing*, 33(4):1785–1809, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i4/p1785_s1.

Brianzi:2008:ISI

[BDE08]

Paola Brianzi, Fabio Di Benedetto, and Claudio Estatico. Improvement of space-invariant image de-

- blurring by preconditioned Landweber iterations. *SIAM Journal on Scientific Computing*, 30(3):1430–1458, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BDHS10]
- [BDF08] David Bindel, James Demmel, and Mark Friedman. Continuation of invariant subspaces in large bifurcation problems. *SIAM Journal on Scientific Computing*, 30(2):637–656, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bindel:2008:CIS**
- [BDG20] R. Brunet, V. Dolean, and M. J. Gander. Natural domain decomposition algorithms for the solution of time-harmonic elastic waves. *SIAM Journal on Scientific Computing*, 42(5):A3313–A3339, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Brunet:2020:NDD** [BDJ05]
- [BDGK18] A. T. Barker, V. Dobrev, J. Gopalakrishnan, and T. Kolev. A scalable preconditioner for a primal discontinuous Petrov–Galerkin method. *SIAM Journal on Scientific Computing*, 40(2):A1187–A1203, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Barker:2018:SPP** [BDK12]
- 1064-8275 (print), 1095-7197 (electronic). **Ballard:2010:COP**
- Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. Communication-optimal parallel and sequential Cholesky decomposition. *SIAM Journal on Scientific Computing*, 32(6):3495–3523, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3495_s1 **Baker:2005:ILS**
- A. H. Baker, J. M. Dennis, and E. R. Jessup. On improving linear solver performance: a block variant of GMRES. *SIAM Journal on Scientific Computing*, 27(5):1608–1626, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60808.html.
- Brdar:2012:CSD**
- S. Brdar, A. Dedner, and R. Klöfkor. Compact and stable discontinuous Galerkin methods for convection-diffusion problems. *SIAM Journal on Scientific Computing*, 34(1):A263–A282, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA263_s1
- [BDK⁺20] **Beck:2020:MMC** [BDMFSL04] Andrea Beck, Jakob Dürrwächter, Thomas Kuhn, Fabian Meyer, Claus-Dieter Munz, and Christian Rohde. *hp*-multilevel Monte Carlo methods for uncertainty quantification of compressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 42(4):B1067–B1091, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BDKR21] **Bergou:2021:NMF** [BDO12] El Houcine Bergou, Youssef Diouane, Vyacheslav Kungurtsev, and Clément W. Royer. A nonmonotone matrix-free algorithm for nonlinear equality-constrained least-squares problems. *SIAM Journal on Scientific Computing*, 43(5):S743–S766, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BDM⁺18] **Bauer:2018:SSA** [BDP96] S. Bauer, D. Drzisga, M. Mohr, U. Rüde, C. Waluga, and B. Wohlmuth. A stencil scaling approach for accelerating matrix-free finite element implementations. *SIAM Journal on Scientific Computing*, 40(6):C748–C778, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Buyarov:2004:CEP** V. Buyarov, J. S. Dehesa, A. Martínez-Finkelshtein, and J. Sánchez-Lara. Computation of the entropy of polynomials orthogonal on an interval. *SIAM Journal on Scientific Computing*, 26(2):488–509, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42671>.
- Bell:2012:EFG** Nathan Bell, Steven Dalton, and Luke N. Olson. Exposing fine-grained parallelism in algebraic multigrid methods. *SIAM Journal on Scientific Computing*, 34(4):C123–C152, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bischof:1996:PAS** Christian H. Bischof, Biswa Nath Datta, and Avijit Purkayastha. A parallel algorithm for the Sylvester observer equation. *SIAM Journal on Scientific Computing*, 17(3):686–698, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/22327>.

- [BDR18] Alessandro Buccini, Marco Donatelli, and Ronny Ramlau. A semiblind regularization algorithm for inverse problems with application to image deblurring. *SIAM Journal on Scientific Computing*, 40(1):A452–A483, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60110>.
- [BDS98] V. A. Bandy, J. E. Dendy, Jr., and W. H. Spangenberg. Some multigrid algorithms for elliptic problems on data parallel machines. *SIAM Journal on Scientific Computing*, 19(1):74–86, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30364>.
- [BDS20] Saray Busto, Michael Dumbser, Ilya Peshkov, and Evgeniy Romenski. On thermodynamically compatible finite volume schemes for continuum mechanics. *SIAM Journal on Scientific Computing*, 44(3):A1723–A1751, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1417508>.
- [BDvdG05] Paolo Bientinesi, Inderjit S. Dhillon, and Robert A. van de Geijn. A parallel eigensolver for dense symmetric matrices based on multiple relatively robust representations. *SIAM Journal on Scientific Computing*, 27(1):43–66, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60110>.
- [BDW11] T. Butler, C. Dawson, and T. Wildey. A posteriori error analysis of stochastic differential equations using polynomial chaos expansions. *SIAM Journal on Scientific Computing*, 33(3):1267–1291, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1267_s1.
- [Bung20] Alexandra Bünger, Sergey Dolgov, and Martin Stoll. A low-rank tensor method for PDE-constrained optimization with isogeometric analysis. *SIAM Journal on Scientific Computing*, 42(1):A140–A161, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BDZ13] **Bao:2013:EWI**
 Weizhu Bao, Xuanchun Dong, and Xiaofei Zhao. An exponential wave integrator sine pseudospectral method for the Klein–Gordon–Zakharov system. *SIAM Journal on Scientific Computing*, 35(6):A2903–A2927, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bea20] **Beale:2020:SPD**
 J. Thomas Beale. Solving partial differential equations on closed surfaces with planar Cartesian grids. *SIAM Journal on Scientific Computing*, 42(2):A1052–A1070, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BEEM18] **Benaceur:2018:PRB**
 Amina Benaceur, Virginie Ehrlicher, Alexandre Ern, and Sébastien Meunier. A progressive reduced basis/empirical interpolation method for nonlinear parabolic problems. *SIAM Journal on Scientific Computing*, 40(5):A2930–A2955, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BEG⁺08] **Barmak:2008:TST**
 K. Barmak, M. Emelianenko, D. Golovaty, D. Kinderlehrer, and S. Ta’asan. Towards a statistical theory of texture evolution in polycrystals. *SIAM Journal on Scientific Computing*, 30(6):3150–3169, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BEH⁺19] **Burman:2019:HCE**
 Erik Burman, Daniel Elfverson, Peter Hansbo, Mats G. Larson, and Karl Larsson. Hybridized CutFEM for elliptic interface problems. *SIAM Journal on Scientific Computing*, 41(5):A3354–A3380, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BEKM16] **Bigoni:2016:STT**
 Daniele Bigoni, Allan P. Engsig-Karup, and Youssef M. Marzouk. Spectral tensor-train decomposition. *SIAM Journal on Scientific Computing*, 38(4):A2405–A2439, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BEM94] **Brunet:1994:EHA**
 Jean-Philippe Brunet, Alan Edelman, and Jill P. Mesirov. Erratum: “Hypercube algorithms for direct N -body solvers for different granularities” [SIAM J. Sci. Comput. 14 (1993), no. 5, 1143–1158, MR 94e:70002]. *SIAM Journal on Scientific Computing*, 15(1):238, January 1994. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See [BME93].

Bui:2017:AMP

[BEM17]

Quan M. Bui, Howard C. Elman, and J. David Moulton. Algebraic multigrid preconditioners for multiphase flow in porous media. *SIAM Journal on Scientific Computing*, 39(5):S662–S680, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benner:2001:SBH

[Ben01]

Peter Benner. Symplectic balancing of Hamiltonian matrices. *SIAM Journal on Scientific Computing*, 22(5):1885–1904, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36799>.

Benzi:2013:SSC

[Ben13]

Michele Benzi. Special section: 2012 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 35(5):S1–S2, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benzi:2015:SSC

[Ben15]

Michele Benzi. Special section: 2014 copper mountain conference. *SIAM Journal on Scientific Computing*, 37

(5):S1–S2, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benzi:2017:SSC

[Ben17]

Michele Benzi. Special section: 2016 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 39(5):S1–S2, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buhr:2017:AST

[BEOR17]

Andreas Buhr, Christian Engwer, Mario Ohlberger, and Stephan Rave. ArbiLoMod, a simulation technique designed for arbitrary local modifications. *SIAM Journal on Scientific Computing*, 39(4):A1435–A1465, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Burrage:1998:DTL

[BEPW98]

K. Burrage, J. Erhel, B. Pohl, and A. Williams. A deflation technique for linear systems of equations. *SIAM Journal on Scientific Computing*, 19(4):1245–1260, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29472>.

- [Ber95a] **Berman:1995:GMC**
 C. Leonard Berman. Grid-multipole calculations. *SIAM Journal on Scientific Computing*, 16(5):1082–1091, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ber98b]
- [Ber95b] **Berzins:1995:TEC**
 M. Berzins. Temporal error control for convection-dominated equations in two space dimensions. *SIAM Journal on Scientific Computing*, 16(3):558–580, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ber98b]
- [Ber97] **Bernert:1997:ETF**
 Klaus Bernert. τ -extrapolation — theoretical foundation, numerical experiment, and application to Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 18(2):460–478, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27262>. [Ber00a]
- [Ber98a] **Berggren:1998:NSF**
 Martin Berggren. Numerical solution of a flow-control problem: Vorticity reduction by dynamic boundary action. *SIAM Journal on Scientific Computing*, 19(3):829–860, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29467>. [Ber00b]
- Berzins:1998:SBT**
 M. Berzins. A solution-based triangular and tetrahedral mesh quality indicator. *SIAM Journal on Scientific Computing*, 19(6):2051–2060, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30522>.
- Bertaccini:2000:CPS**
 D. Bertaccini. A circulant preconditioner for the systems of LMF-based ODE codes. *SIAM Journal on Scientific Computing*, 22(3):767–786, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35347>.
- Berzins:2000:DBQ**
 Martin Berzins. A data-bounded quadratic interpolant on triangles and tetrahedra. *SIAM Journal on Scientific Computing*, 22(1):177–197, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35347>.

- [/epubs.siam.org/sam-bin/dbq/article/31763](http://epubs.siam.org/sam-bin/dbq/article/31763).
- Boubendir:2017:AIM**
- [BER17] Yassine Boubendir, Fatih Ecevit, and Fernando Reitich. Acceleration of an iterative method for the evaluation of high-frequency multiple scattering effects. *SIAM Journal on Scientific Computing*, 39(6):B1130–B1155, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bollhofer:2019:LSS**
- [BESS19] Matthias Bollhöfer, Aryan Eftekhari, Simon Scheidegger, and Olaf Schenk. Large-scale sparse inverse covariance matrix estimation. *SIAM Journal on Scientific Computing*, 41(1):A380–A401, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Betcke:2008:GSV**
- [Bet08] Timo Betcke. The generalized singular value decomposition and the method of particular solutions. *SIAM Journal on Scientific Computing*, 30(3):1278–1295, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Beuchler:2005:EOT**
- [Beu05] Sven Beuchler. Extension operators on tensor product structures in two and three dimensions. *SIAM Journal on Scientific Computing*, 26(5):1776–1795, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60515>.
- Bialecki:1995:MDA**
- [BF95] Bernard Bialecki and Graeme Fairweather. Matrix decomposition algorithms in orthogonal spline collocation for separable elliptic boundary value problems. *SIAM Journal on Scientific Computing*, 16(2):330–347, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bai:2001:SBL**
- [BF01] Zhaojun Bai and Roland W. Freund. A symmetric band Lanczos process based on coupled recurrences and some applications. *SIAM Journal on Scientific Computing*, 23(2):542–562, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37177>.
- Bialecki:2006:ADI**
- [BF06] Bernard Bialecki and Ryan I. Fernandes. An alternating-direction implicit orthogonal spline collocation scheme for nonlinear parabolic prob-

lems on rectangular polygons. *SIAM Journal on Scientific Computing*, 28(3):1054–1077, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brannick:2010:CRC

[BF10]

James J. Brannick and Robert D. Falgout. Compatible relaxation and coarsening in algebraic multigrid. *SIAM Journal on Scientific Computing*, 32(3):1393–1416, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bell:2013:SME

[BF13]

Bradley M. Bell and Abraham D. Flaxman. A statistical model and estimation of disease rates as functions of age and time. *SIAM Journal on Scientific Computing*, 35(2):B511–B528, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bonaventura:2014:SLM

[BF14]

L. Bonaventura and R. Ferretti. Semi-Lagrangian methods for parabolic problems in divergence form. *SIAM Journal on Scientific Computing*, 36(5):A2458–A2477, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Barth:2016:UQH

[BF16]

Andrea Barth and Franz G. Fuchs. Uncertainty quantification for hyperbolic conservation laws with flux coefficients given by spatiotemporal random fields. *SIAM Journal on Scientific Computing*, 38(4):A2209–A2231, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boncoraglio:2022:PGN

[BF22a]

Gabriele Boncoraglio and Charbel Farhat. Piecewise-global nonlinear model order reduction for PDE-constrained optimization in high-dimensional parameter spaces. *SIAM Journal on Scientific Computing*, 44(4):A2176–A2203, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1435343>.

Brubeck:2022:SRV

[BF22b]

Pablo D. Brubeck and Patrick E. Farrell. A scalable and robust vertex-star relaxation for high-order FEM. *SIAM Journal on Scientific Computing*, 44(5):A2991–A3017, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1444187>.

- [BFG⁺16] **Bienz:2016:RPC**
 Amanda Bienz, Robert D. Falgout, William Gropp, Luke N. Olson, and Jacob B. Schroder. Reducing parallel communication in algebraic multigrid through sparsification. *SIAM Journal on Scientific Computing*, 38(5):S332–S357, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BFJ07] **Busby:2007:HNA**
 Daniel Busby, Chris L. Farmer, and Armin Iske. Hierarchical nonlinear approximation for experimental design and statistical data fitting. *SIAM Journal on Scientific Computing*, 29(1):49–69, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BFJ00] **Brown:2000:SMD**
 Peter N. Brown, Robert D. Falgout, and Jim E. Jones. Semicoarsening multigrid on distributed memory machines. *SIAM Journal on Scientific Computing*, 21(5):1823–1834, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33914>.
- [BFJ⁺15] **Bank:2015:AMD**
 R. Bank, R. Falgout, T. Jones, T. A. Manteuffel, S. F. McCormick, and J. W. Ruge. Algebraic multigrid domain and range decomposition (AMG-DD/AMG-RD). *SIAM Journal on Scientific Computing*, 37(5):S113–S136, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BFK03] **Bialecki:2003:MDA**
 Bernard Bialecki, Graeme Fairweather, and Andreas Karageorghis. Matrix decomposition algorithms for modified spline collocation for Helmholtz problems. *SIAM Journal on Scientific Computing*, 24(5):1733–1753, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39964>.
- [BFK05] **Bialecki:2005:OSO**
 Bernard Bialecki, Graeme Fairweather, and Andreas Karageorghis. Optimal superconvergent one step nodal cubic spline collocation methods. *SIAM Journal on Scientific Computing*, 27(2):575–598, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60979>.
- [BFKY11] **Baker:2011:MSU**
 Allison H. Baker, Robert D.

Falgout, Tzanio V. Kolev, and Ulrike Meier Yang. Multigrid smoothers for ultraparallel computing. *SIAM Journal on Scientific Computing*, 33(5):2864–2887, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resources/vol33/1/sjoc3/v33/i5/p2864_s1. [BFP12]

Brezina:2004:ASA

[BFM⁺04] M. Brezina, R. Falgout, S. MacLachlan, T. Manteuffel, S. McCormick, and J. Ruge. Adaptive smoothed aggregation (α SA). *SIAM Journal on Scientific Computing*, 25(6):1896–1920, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41859>. [BFR23]

Brezina:2005:AAM

[BFM⁺05] M. Brezina, R. Falgout, S. MacLachlan T. Manteuffel, S. McCormick, and J. Ruge. Adaptive algebraic multigrid. *SIAM Journal on Scientific Computing*, 27(4):1261–1286, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61440.html. [BFS16]

Billaud-Friess:2017:DMR

[BFN17] Marie Billaud-Friess and Anthony Nouy. Dynamical model reduction method for

solving parameter-dependent dynamical systems. *SIAM Journal on Scientific Computing*, 39(4):A1766–A1792, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boullé:2022:CBS

Nicolas Boullé, Patrick E. Farrell, and Alberto Paganini. Control of bifurcation structures using shape optimization. *SIAM Journal on Scientific Computing*, 44(1):A57–A76, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1418708>.

Boullé:2023:OHB

Nicolas Boullé, Patrick E. Farrell, and Marie E. Rognes. Optimization of Hopf bifurcation points. *SIAM Journal on Scientific Computing*, 45(3):B390–B411, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1474448>.

Bokanowski:2016:EFS

Olivier Bokanowski, Maurizio Falcone, and Smita Sahu. An efficient filtered scheme for some first order time-dependent Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 38(1):

A171–A195, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buzzard:2008:SIV

[BFSN08]

Gregery T. Buzzard, Jeffrey J. Fox, and Fernando Siso-Nadal. Sharp interface and voltage conservation in the phase field method: Application to cardiac electrophysiology. *SIAM Journal on Scientific Computing*, 30(2):837–854, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Belgacem:1998:AWE

[BG98]

F. Ben Belgacem and M. Grundmann. Approximation of the wave and electromagnetic diffusion equations by spectral method. *SIAM Journal on Scientific Computing*, 20(1):13–32, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29434>.

Bustinza:2004:LDG

[BG04]

Rommel Bustinza and Gabriel N. Gatica. A local discontinuous Galerkin method for nonlinear diffusion problems with mixed boundary conditions. *SIAM Journal on Scientific Computing*, 26(1):152–177, January 2004. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41941>.

Biros:2005:PLNa

George Biros and Omar Ghattas. Parallel Lagrange–Newton–Krylov–Schur methods for PDE-constrained optimization. Part I: The Krylov–Schur solver. *SIAM Journal on Scientific Computing*, 27(2):687–713, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41565>.

Biros:2005:PLNb

George Biros and Omar Ghattas. Parallel Lagrange–Newton–Krylov–Schur methods for PDE-constrained optimization. Part II: The Lagrange–Newton solver and its application to optimal control of steady viscous flows. *SIAM Journal on Scientific Computing*, 27(2):714–739, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41566>.

Bechouche:2007:SCM

Philippe Bechouche and Laurent Gosse. A semiclassical coupled model for the transient simulation of semicon-

[BG05a]

[BG05b]

[BG07]

- ductor devices. *SIAM Journal on Scientific Computing*, 29(1):376–396, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BG13]
- [BG10] **Bardsley:2010:IME**
Johnathan M. Bardsley and John Goldes. An iterative method for edge-preserving MAP estimation when data-noise is Poisson. *SIAM Journal on Scientific Computing*, 32(1):171–185, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BG11] **Betz:2011:NTT**
Volker Betz and Benjamin D. Goddard. Nonadiabatic transitions through tilted avoided crossings. *SIAM Journal on Scientific Computing*, 33(5):2247–2276, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i5/p2247_s1 [BG17a]
- [BG12] **Buluc:2012:PSM**
Aydin Buluç and John R. Gilbert. Parallel sparse matrix-matrix multiplication and indexing: Implementation and experiments. *SIAM Journal on Scientific Computing*, 34(4):C170–C191, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bush:2013:ACG**
L. Bush and V. Ginting. On the application of the continuous Galerkin finite element method for conservation problems. *SIAM Journal on Scientific Computing*, 35(6):A2953–A2975, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ballani:2014:TAA**
Jonas Ballani and Lars Grasedyck. Tree adaptive approximation in the hierarchical tensor format. *SIAM Journal on Scientific Computing*, 36(4):A1415–A1431, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Berljafa:2017:PRA**
Mario Berljafa and Stefan Güttel. Parallelization of the rational Arnoldi algorithm. *SIAM Journal on Scientific Computing*, 39(5):S197–S221, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Berljafa:2017:RAN**
Mario Berljafa and Stefan Güttel. The RKFIT algorithm for nonlinear rational approximation. *SIAM Journal on Scientific Computing*, 39(5):A2049–A2071, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BG17b]

- [BG20] **Bochkov:2020:PBM**
 Daniil Bochkov and Frederic Gibou. PDE-based multi-dimensional extrapolation of scalar fields over interfaces with kinks and high curvatures. *SIAM Journal on Scientific Computing*, 42(4):A2344–A2359, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BG21] **Benner:2021:IBM**
 Peter Benner and Pawan Goyal. Interpolation-based model order reduction for polynomial systems. *SIAM Journal on Scientific Computing*, 43(1):A84–A108, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BG22] **Balabanov:2022:RGS**
 Oleg Balabanov and Laura Grigori. Randomized Gram-Schmidt process with application to GMRES. *SIAM Journal on Scientific Computing*, 44(3):A1450–A1474, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M138870X>.
- [BGGM22] **Bellotti:2022:MBM**
 Thomas Bellotti, Loïc Gouarin, Benjamin Graille, and Marc Massot. Multiresolution-based mesh adaptation and error control for lattice Boltzmann methods with applications to hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 44(4):A2599–A2627, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140256X>.
- [BGH⁺03] **Bochev:2003:IAM**
 Pavel B. Bochev, Christopher J. Garasi, Jonathan J. Hu, Allen C. Robinson, and Raymond S. Tuminaro. An improved algebraic multigrid method for solving Maxwell’s equations. *SIAM Journal on Scientific Computing*, 25(2):623–642, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40770>.
- [BGH13] **Botchev:2013:RRR**
 Mike A. Botchev, Volker Grimm, and Marlis Hochbruck. Residual, restarting, and Richardson iteration for the matrix exponential. *SIAM Journal on Scientific Computing*, 35(3):A1376–A1397, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BGH19] **Betz:2019:NTM**
 V. Betz, B. D. Goddard, and Tim Hurst. Nonadia-

batic transitions in multiple dimensions. *SIAM Journal on Scientific Computing*, 41(5):B1011–B1033, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buchfink:2023:SMR

[BGH23]

Patrick Buchfink, Silke Glas, and Bernard Haasdonk. Symplectic model reduction of Hamiltonian systems on nonlinear manifolds and approximation with weakly symplectic autoencoder. *SIAM Journal on Scientific Computing*, 45(2):A289–A311, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1466657>.

Beck:2015:MNS

[BGK15]

Mélanie Beck, Martin J. Gander, and Felix Kwok. B -methods for the numerical solution of evolution problems with blow-up solutions Part I: Variation of the constant. *SIAM Journal on Scientific Computing*, 37(6):A2998–A3029, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bai:2006:OPH

[BGL06a]

Zhong-Zhi Bai, Gene H. Golub, and Chi-Kwong Li. Optimal parameter in Hermitian and skew-Hermitian

splitting method for certain two-by-two block matrices. *SIAM Journal on Scientific Computing*, 28(2):583–603, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62364.html.

Burkardt:2006:CVT

[BGL06b]

John Burkardt, Max Gunzburger, and Hyung-Chun Lee. Centroidal Voronoi tessellation-based reduced-order modeling of complex systems. *SIAM Journal on Scientific Computing*, 28(2):459–484, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_42221.html.

Bai:2008:FIS

[BGL08]

Zhong-Zhi Bai, Yong-Hua Gao, and Lin-Zhang Lu. Fast iterative schemes for nonsymmetric algebraic Riccati equations arising from transport theory. *SIAM Journal on Scientific Computing*, 30(2):804–818, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Barker:2021:MSC

[BGL⁺21]

Andrew T. Barker, Stephan V. Gelever, Chak S. Lee, Sarah V. Osborn, and Panayot S. Vassilevski. Multilevel spectral

- coarsening for graph Laplacian problems with application to reservoir simulation. *SIAM Journal on Scientific Computing*, 43(4): A2737–A2765, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BGLY05] Zhong-Zhi Bai, Gene H. Golub, Lin-Zhang Lu, and Jun-Feng Yin. Block triangular and skew-Hermitian splitting methods for positive-definite linear systems. *SIAM Journal on Scientific Computing*, 26(3):844–863, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42811>. **Bai:2005:BTS** [BGMR01]
- [BGM09] Gregory Beylkin, Jochen Garcke, and Martin J. Mohlenkamp. Multivariate regression and machine learning with sums of separable functions. *SIAM Journal on Scientific Computing*, 31(3): 1840–1857, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Beylkin:2009:MRM** [BGMW17]
- [BGM13] Stefania Bellavia, Jacek Gondzio, and Benedetta Morini. A matrix-free preconditioner for sparse symmetric positive definite systems and least-squares problems. *SIAM Journal on Scientific Computing*, 35(1): A192–A211, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Broker:2001:RPS**
- [BGN07] Oliver Bröker, Marcus J. Grote, Carsten Mayer, and Arnold Reusken. Robust parallel smoothing for multigrid via sparse approximate inverses. *SIAM Journal on Scientific Computing*, 23(4):1396–1417, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38062>. **Butler:2017:MTI**
- [BGN07] T. Butler, L. Graham, S. Mattis, and S. Walsh. A measure-theoretic interpretation of sample based numerical integration with applications to inverse and prediction problems under uncertainty. *SIAM Journal on Scientific Computing*, 39(5): A2072–A2098, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Barrett:2007:VAC**
- [BGN07] John W. Barrett, Harald Garcke, and Robert Nürnberg. On the variational

approximation of combined second and fourth order geometric evolution equations. *SIAM Journal on Scientific Computing*, 29(3):1006–1041, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Barrett:2008:PAW

[BGPS21]

[BGN08]

John W. Barrett, Harald Garcke, and Robert Nürnberg. Parametric approximation of Willmore flow and related geometric evolution equations. *SIAM Journal on Scientific Computing*, 31(1):225–253, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Baranger:2008:ALA

[BGOD08]

J. Baranger, M. Garbey, and F. Oudin-Dardun. The Aitken-like acceleration of the Schwarz method on nonuniform Cartesian grids. *SIAM Journal on Scientific Computing*, 30(5):2566–2586, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BGR10]

Bramble:1994:ACM

[BGP94]

J. H. Bramble, C. I. Goldstein, and J. E. Pasciak. Analysis of V -cycle multigrid algorithms for forms defined by numerical quadrature. *SIAM Journal on Scientific Computing*, 15(3):566–576, May 1994. CO-

[BGR16]

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Berrone:2021:TFB

Stefano Berrone, Denise Grappein, Sandra Pieracini, and Stefano Scialó. A three-field based optimization formulation for flow simulations in networks of fractures on nonconforming meshes. *SIAM Journal on Scientific Computing*, 43(2):B381–B404, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bremer:2010:NOP

James Bremer, Zydrunas Gimbutas, and Vladimir Rokhlin. A nonlinear optimization procedure for generalized Gaussian quadratures. *SIAM Journal on Scientific Computing*, 32(4):1761–1788, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brown:2016:MAC

Kirsty L. Brown, Igor Gadjadze, and Alison Ramage. A multilevel approach for computing the limited-memory Hessian and its inverse in variational data assimilation. *SIAM Journal on Scientific Computing*, 38(5):

- A2934–A2963, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH93]
- [BGS09] **Bollhofer:2009:AMP**
 Matthias Bollhöfer, Marcus J. Grote, and Olaf Schenk. Algebraic multi-level preconditioner for the Helmholtz equation in heterogeneous media. *SIAM Journal on Scientific Computing*, 31(5):3781–3805, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH97]
- [BGS17] **Bender:2017:IIL**
 Christian Bender, Christian Gärtner, and Nikolaus Schweizer. Iterative improvement of lower and upper bounds for backward SDEs. *SIAM Journal on Scientific Computing*, 39(2):B442–B466, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH00a]
- [BGSV15] **Breda:2015:CER**
 D. Breda, P. Getto, J. Sánchez Sanz, and R. Vermiglio. Computing the eigenvalues of realistic Daphnia models by pseudospectral methods. *SIAM Journal on Scientific Computing*, 37(6):A2607–A2629, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH00b]
- Briggs:1993:WM**
 William L. Briggs and Van Emden Henson. Wavelets and multigrid. *SIAM Journal on Scientific Computing*, 14(2):506–510, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bihari:1997:MSN**
 Barna L. Bihari and Ami Harten. Multiresolution schemes for the numerical solution of 2-D conservation laws. I. *SIAM Journal on Scientific Computing*, 18(2):315–354, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27884>.
- Bank:2000:NPP**
 Randolph E. Bank and Michael Holst. A new paradigm for parallel adaptive meshing algorithms. *SIAM Journal on Scientific Computing*, 22(4):1411–1443, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35370>.
- Bansch:2000:NTN**
 Eberhard Bänsch and Burkhard Höhn. Numerical treatment of the Navier–Stokes equa-

- tions with slip boundary condition. *SIAM Journal on Scientific Computing*, 21(6): 2144–2162, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34399>. [BH12]
- Bruno:2007:RTS**
- [BH07] Oscar P. Bruno and Michael C. Haslam. Regularity theory and superalgebraic solvers for wire antenna problems. *SIAM Journal on Scientific Computing*, 29(4):1375–1402, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH14a]
- Borzi:2008:MOS**
- [BH08] A. Borzi and U. Hohenester. Multigrid optimization schemes for solving Bose–Einstein condensate control problems. *SIAM Journal on Scientific Computing*, 30(1): 441–462, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BH14b]
- Bernauer:2011:OCC**
- [BH11] Martin K. Bernauer and Roland Herzog. Optimal control of the classical two-phase Stefan problem in level set formulation. *SIAM Journal on Scientific Computing*, 33(1):342–363, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec- [BH16]
- tronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p342_s1.
- Berger:2012:SBM**
- Marsha Berger and Christiane Helzel. A simplified h -box method for embedded boundary grids. *SIAM Journal on Scientific Computing*, 34(2):A861–A888, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Badia:2014:MPS**
- Santiago Badia and Alba Hierro. On monotonicity-preserving stabilized finite element approximations of transport problems. *SIAM Journal on Scientific Computing*, 36(6):A2673–A2697, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Byckling:2014:PDA**
- Mikko Byckling and Marko Huhtanen. Preconditioning with direct approximate factoring of the inverse. *SIAM Journal on Scientific Computing*, 36(1):A88–A104, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Burstedde:2016:TSF**
- Carsten Burstedde and Johannes Holke. A tetrahedral space-filling curve for non-conforming adaptive meshes.

- [BH23] *SIAM Journal on Scientific Computing*, 38(5):C471–C503, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BH17] **Burstedde:2017:CMP**
Carsten Burstedde and Johannes Holke. Coarse mesh partitioning for tree-based AMR. *SIAM Journal on Scientific Computing*, 39(5):C364–C392, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BH20] **Bardsley:2020:MAC**
Johnathan M. Bardsley and Per Christian Hansen. MCMC algorithms for computational UQ of nonnegativity constrained linear inverse problems. *SIAM Journal on Scientific Computing*, 42(2):A1269–A1288, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BH22] **Bonev:2022:HPW**
Boris Bonev and Jan S. Hesthaven. A hierarchical preconditioner for wave problems in quasilinear complexity. *SIAM Journal on Scientific Computing*, 44(1):A198–A229, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1365958>.
- [BHG14] **Burasca:2023:CQB**
Jake Brusca and Brittany Froese Hamfeldt. A convergent quadrature-based method for the Monge–Ampère equation. *SIAM Journal on Scientific Computing*, 45(3):A1097–A1124, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1494658>.
- [BHK12] **Baffet:2014:DAB**
Daniel Baffet, Thomas Hagstrom, and Dan Givoli. Double absorbing boundary formulations for acoustics and elastodynamics. *SIAM Journal on Scientific Computing*, 36(3):A1277–A1312, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHK14] **Burrage:2012:EIF**
Kevin Burrage, Nicholas Hale, and David Kay. An efficient implicit FEM scheme for fractional-in-space reaction-diffusion equations. *SIAM Journal on Scientific Computing*, 34(4):A2145–A2172, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHK14] **Berrut:2014:LBR**
J.-P. Berrut, S. A. Hosseini, and G. Klein. The linear

barycentric rational quadrature method for Volterra integral equations. *SIAM Journal on Scientific Computing*, 36(1):A105–A123, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buttari:2020:PFB [BHM19]

[BHK20] Alfredo Buttari, Søren Hauberg, and Costy Kodsı. Parallel QR factorization of block-tridiagonal matrices. *SIAM Journal on Scientific Computing*, 42(6):C313–C334, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Blanchard:2020:MPB [BHM20]

[BHL⁺20] Pierre Blanchard, Nicholas J. Higham, Florent Lopez, Theo Mary, and Srikara Pranesh. Mixed precision block fused multiply-add: Error analysis and application to GPU tensor cores. *SIAM Journal on Scientific Computing*, 42(3):C124–C141, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Burman:2022:ETS

[BHL22] Erik Burman, Peter Hansbo, and Mats G. Larson. Explicit time stepping for the wave equation using Cut-FEM with discrete extension. *SIAM Journal on Scientific Computing*, 44(3):

A1254–A1289, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M137937X>.

Brown:2019:LFA

Jed Brown, Yunhui He, and Scott MacLachlan. Local Fourier analysis of balancing domain decomposition by constraints algorithms. *SIAM Journal on Scientific Computing*, 41(5):S346–S369, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Blanchard:2020:CFA

Pierre Blanchard, Nicholas J. Higham, and Theo Mary. A class of fast and accurate summation algorithms. *SIAM Journal on Scientific Computing*, 42(3):A1541–A1557, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brown:2021:TMM

[BHM⁺21] Jed Brown, Yunhui He, Scott MacLachlan, Matt Menickelly, and Stefan M. Wild. Tuning multigrid methods with robust optimization and local Fourier analysis. *SIAM Journal on Scientific Computing*, 43(1):A109–A138, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BHM_X18] **Bousquet:2018:NSD** Arthur Bousquet, Xiaozhe Hu, Maximilian S. Metti, and Jinchao Xu. Newton solvers for drift-diffusion and electrokinetic equations. *SIAM Journal on Scientific Computing*, 40(3):B982–B1006, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BHP94]
- [BHN07] **Bai:2007:PIM** Zhong-Zhi Bai, Yu-Mei Huang, and Michael K. Ng. On preconditioned iterative methods for Burgers equations. *SIAM Journal on Scientific Computing*, 29(1):415–439, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BHP98]
- [BHN10] **Banda:2010:TMA** Mapundi K. Banda, Michael Herty, and Jean-Medard T. Ngotchouye. Toward a mathematical analysis for drift-flux multiphase flow models in networks. *SIAM Journal on Scientific Computing*, 31(6):4633–4653, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHNPR07] **Bermudez:2007:EBP** A. Bermúdez, L. Hervella-Nieto, A. Prieto, and R. Rodríguez. An exact bounded perfectly matched layer for time-harmonic scattering problems. *SIAM Journal on Scientific Computing*, 30(1):312–338, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Brown:1994:UKM** Peter N. Brown, Alan C. Hindmarsh, and Linda R. Petzold. Using Krylov methods in the solution of large-scale differential-algebraic systems. *SIAM Journal on Scientific Computing*, 15(6):1467–1488, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Brown:1998:CIC** Peter N. Brown, Alan C. Hindmarsh, and Linda R. Petzold. Consistent initial condition calculation for differential-algebraic systems. *SIAM Journal on Scientific Computing*, 19(5):1495–1512, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28999>.
- Budd:1996:MMM** Chris J. Budd, Weizhang Huang, and Robert D. Russell. Moving mesh methods for problems with blow-up. *SIAM Journal on Scientific Computing*, 17(2):305–327, March 1996. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27202>.
- [BHR23] **Burbulla:2023:FPM** Samuel Burbulla, Maximilian Hörl, and Christian Rohde. Flow in porous media with fractures of varying aperture. *SIAM Journal on Scientific Computing*, 45(4):A1519–A1544, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1510406>.
- [BHST08] **Bochev:2008:AMA** Pavel B. Bochev, Jonathan J. Hu, Christopher M. Siefert, and Raymond S. Tuminaro. An algebraic multigrid approach based on a compatible gauge reformulation of Maxwell’s equations. *SIAM Journal on Scientific Computing*, 31(1):557–583, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHT00] **Benzi:2000:PHI** Michele Benzi, John C. Haws, and Miroslav Tuma. Preconditioning highly indefinite and nonsymmetric matrices. *SIAM Journal on Scientific Computing*, 22(4):1333–1353, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHT09] **Benzi:2009:MAL** Michele Benzi, Eldad Haber, and Lauren Taralli. Multilevel algorithms for large-scale interior point methods. *SIAM Journal on Scientific Computing*, 31(6):4152–4175, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BHT11] **Botkin:2011:SNS** Nikolai D. Botkin, Karl-Heinz Hoffmann, and Varvara L. Turova. Stable numerical schemes for solving Hamilton–Jacobi–Bellman–Isaacs equations. *SIAM Journal on Scientific Computing*, 33(2):992–1007, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p992_s1.
- [BHV05] **Bansch:2005:FEM** Eberhard Bänsch, Frank Hausser, and Axel Voigt. Finite element method for epitaxial growth with thermodynamic boundary conditions. *SIAM Journal on Scientific Computing*, 26(6):2029–2046, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v26/i6/p2029_s1.

/epubs.siam.org/sam-bin/dbq/article/60102.

Bayer:2014:NOS

- [BHvST14] Christian Bayer, Håkon Hoel, Erik von Schwerin, and Raúl Tempone. On nonasymptotic optimal stopping criteria in Monte Carlo simulations. *SIAM Journal on Scientific Computing*, 36(2): A869–A885, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Budd:1999:FEA

- [BHW99] C. J. Budd, A. R. Humphries, and A. J. Wathen. The finite element approximation of semilinear elliptic partial differential equations with critical exponents in the cube. *SIAM Journal on Scientific Computing*, 20(5): 1875–1904, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31213>.

Bermejo:2000:MAL

- [BI00] Rodolfo Bermejo and Juan-Antonio Infante. A multigrid algorithm for the p -Laplacian. *SIAM Journal on Scientific Computing*, 21(5): 1774–1789, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33909>.

/epubs.siam.org/sam-bin/dbq/article/33909.

Blokhin:2009:NMS

- [BI09] A. M. Blokhin and A. S. Ibragimova. Numerical method for 2D simulation of a silicon MESFET with a hydrodynamical model based on the maximum entropy principle. *SIAM Journal on Scientific Computing*, 31(3): 2015–2046, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bialecki:1994:PRM

- [Bia94] Bernard Bialecki. Preconditioned Richardson and minimal residual iterative methods for piecewise Hermite bicubic orthogonal spline collocation equations. *SIAM Journal on Scientific Computing*, 15(3):668–680, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Braverman:1999:FSS

- [BIA99] E. Braverman, M. Israeli, and A. Averbuch. A fast spectral solver for a 3D Helmholtz equation. *SIAM Journal on Scientific Computing*, 20(6): 2237–2260, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33909>.

- [/epubs.siam.org/sam-bin/dbq/article/33424](http://epubs.siam.org/sam-bin/dbq/article/33424).
- [BIA05] **Braverman:2005:HDD**
E. Braverman, M. Israeli, and A. Averbuch. A hierarchical 3-D direct Helmholtz solver by domain decomposition and modified Fourier method. *SIAM Journal on Scientific Computing*, 26(5):1504–1524, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41703>.
- [BIYS00] **Brandt:2000:MSE**
Achi Brandt, Moshe Israeli, Irad Yavneh, and Andrew Siegel. Multigrid solution of an elliptic boundary-value problem with integral constraints. *SIAM Journal on Scientific Computing*, 21(4):1357–1369, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33181>.
- [BJ01] **Borzi:2002:OCF**
Alfio Borzi, Kazufumi Ito, and Karl Kunisch. Optimal control formulation for determining optical flow. *SIAM Journal on Scientific Computing*, 24(3):818–847, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38648>.
- [BJ08] **Borzi:2002:OCF**
Alfio Borzi, Kazufumi Ito, and Karl Kunisch. Optimal control formulation for determining optical flow. *SIAM Journal on Scientific Computing*, 24(3):818–847, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38648>.
- [Bit99] **Bittner:1999:FAP**
Kai Bittner. Fast algorithms for periodic spline wavelets on sparse grids. *SIAM Journal on Scientific Computing*, 20(4):1192–1213, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30909>.
- [Bja19] **Bjarkason:2019:PER**
Elvar K. Bjarkason. Pass-efficient randomized algo-
- [BJ01] **Bao:2001:RPM**
Weizhu Bao and Shi Jin. The random projection method for stiff detonation capturing. *SIAM Journal on Scientific Computing*, 23(3):1000–1026, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36496>.
- [BJ08] **Brunk:2008:NCE**
Markus Brunk and Ansgar Jüngel. Numerical coupling of electric circuit equations and energy-transport models for semiconductors. *SIAM Journal on Scientific Computing*, 30(2):873–894, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

rithms for low-rank matrix approximation using any number of views. *SIAM Journal on Scientific Computing*, 41(4):A2355–A2383, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bao:2003:NST

[BJM03]

Weizhu Bao, Shi Jin, and Peter A. Markowich. Numerical study of time-splitting spectral discretizations of nonlinear Schrödinger equations in the semiclassical regimes. *SIAM Journal on Scientific Computing*, 25(1):27–64, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39325>.

Bank:2002:WOD

[BJNN02]

Randolph E. Bank, Peter K. Jimack, Sarfraz A. Nadeem, and Sergei V. Nepomnyaschikh. A weakly overlapping domain decomposition preconditioner for the finite element solution of elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 23(6):1818–1842, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36142>.

Bjorhus:1995:OFH

[Bjø95]

Morten Bjørhus. The ODE formulation of hyperbolic PDEs discretized by the spectral collocation method. *SIAM Journal on Scientific Computing*, 16(3):542–557, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brandner:2022:FED

[BJP+22]

Philip Brandner, Thomas Jankuhn, Simon Praetorius, Arnold Reusken, and Axel Voigt. Finite element discretization methods for velocity-pressure and stream function formulations of surface Stokes equations. *SIAM Journal on Scientific Computing*, 44(4):A1807–A1832, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1403126>.

Butler:2018:CPF

[BJW18a]

T. Butler, J. Jakeman, and T. Wildey. Combining push-forward measures and Bayes’ rule to construct consistent solutions to stochastic inverse problems. *SIAM Journal on Scientific Computing*, 40(2):A984–A1011, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BJW18b] **Butler:2018:CPD**
 T. Butler, J. Jakeman, and T. Willey. Convergence of probability densities using approximate models for forward and inverse problems in uncertainty quantification. *SIAM Journal on Scientific Computing*, 40(5): A3523–A3548, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK98] **Banoczi:1998:FMA**
 J. M. Banoczi and C. T. Kelley. A fast multilevel algorithm for the solution of nonlinear systems of conductive-radiative heat transfer equations. *SIAM Journal on Scientific Computing*, 19(1):266–279, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30296>.
- [BK99] **Banoczi:1999:FMA**
 J. M. Banoczi and C. T. Kelley. A fast multilevel algorithm for the solution of nonlinear systems of conductive-radiative heat transfer equations in two space dimensions. *SIAM Journal on Scientific Computing*, 20(4): 1214–1228, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32275>.
- [BK00a] **Bialecki:2000:LSG**
 Bernard Bialecki and Andreas Karageorghis. A Legendre spectral Galerkin method for the biharmonic Dirichlet problem. *SIAM Journal on Scientific Computing*, 22(5): 1549–1569, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34240>.
- [BK00b] **Borzi:2000:NSS**
 Alfio Borzi and Karl Kunisch. The numerical solution of the steady state solid fuel ignition model and its optimal control. *SIAM Journal on Scientific Computing*, 22(1):263–284, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36019>.
- [BK04] **Bhave:2004:PSR**
 Amit Bhave and Markus Kraft. Partially stirred reactor model: Analytical solutions and numerical convergence study of a PDF/Monte Carlo method. *SIAM Journal on Scientific Computing*, 25(5):1798–1823, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41132>.
- [BK06] **Berrone:2006:AWA**
S. Berrone and T. Kozubek. An adaptive WEM algorithm for solving elliptic boundary value problems in fairly general domains. *SIAM Journal on Scientific Computing*, 28(6):2114–2138, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK07] **Bader:2007:EMC**
Brett W. Bader and Tamara G. Kolda. Efficient MATLAB computations with sparse and factored tensors. *SIAM Journal on Scientific Computing*, 30(1):205–231, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK08] **Beilina:2008:GCN**
Larisa Beilina and Michael V. Klivanov. A globally convergent numerical method for a coefficient inverse problem. *SIAM Journal on Scientific Computing*, 31(1):478–509, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK10] **Bialecki:2010:SCC**
Bernard Bialecki and Andreas Karageorghis. Spectral Chebyshev collocation for the Poisson and biharmonic equations. *SIAM Journal on Scientific Computing*, 32(5):2995–3019, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK11] **Brunner:2011:AML**
Thomas A. Brunner and Tzanio V. Kolev. Algebraic multigrid for linear systems obtained by explicit element reduction. *SIAM Journal on Scientific Computing*, 33(5):2706–2731, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2706_s1.
- [BK14] **Brannick:2014:BAM**
J. Brannick and K. Kahl. Bootstrap algebraic multigrid for the 2D Wilson Dirac system. *SIAM Journal on Scientific Computing*, 36(3):B321–B347, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BK16] **Ballani:2016:RBM**
Jonas Ballani and Daniel Kressner. Reduced basis methods: From low-rank matrices to low-rank tensors. *SIAM Journal on Scientific Computing*, 38(4):A2045–A2067, 2016. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Bosner:2017:PHH

[BK17]

Nela Bosner and Lars Karlsson. Parallel and heterogeneous m -Hessenberg-Triangular-Triangular reduction. *SIAM Journal on Scientific Computing*, 39(1):C29–C47, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Borsche:2018:KLC

[BK18]

R. Borsche and A. Klar. Kinetic layers and coupling conditions for macroscopic equations on networks I: The wave equation. *SIAM Journal on Scientific Computing*, 40(3):A1784–A1808, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brune:2020:BMB

[BK20]

Alexander Brune and Michal Kocvara. On barrier and modified barrier multigrid methods for three-dimensional topology optimization. *SIAM Journal on Scientific Computing*, 42(1):A28–A53, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Burger:2018:CDG

[BKBT18]

Raimund Bürger, Sudarshan Kumar Kenettinkara, Ricardo Ruiz Baier, and

Hector Torres. Coupling of discontinuous Galerkin schemes for viscous flow in porous media with adsorption. *SIAM Journal on Scientific Computing*, 40(2):B637–B662, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boilevin-Kayl:2019:LCS

[BKFG19]

Ludovic Boilevin-Kayl, Miguel A. Fernández, and Jean-Frédéric Gerbeau. A loosely coupled scheme for fictitious domain approximations of fluid-structure interaction problems with immersed thin-walled structures. *SIAM Journal on Scientific Computing*, 41(2):B351–B374, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bader:2016:CRB

[BKGV16]

Eduard Bader, Mark Kärcher, Martin A. Grepl, and Karen Veroy. Certified reduced basis methods for parametrized distributed elliptic optimal control problems with control constraints. *SIAM Journal on Scientific Computing*, 38(6):A3921–A3946, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bezzam:2022:PPL

[BKH⁺22]

Eric Bezzam, Sepand Kashani, Paul Hurley, Martin Vet-

terli, and Matthieu Simeoni. pyFFS: a Python library for fast Fourier series computation and interpolation with GPU acceleration. *SIAM Journal on Scientific Computing*, 44(4):C346–C366, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1448641>.

Benner:2018:RST

[BKK18] Peter Benner, Venera Khoromskaia, and Boris N. Khoromskij. Range-separated tensor format for many-particle modeling. *SIAM Journal on Scientific Computing*, 40(2):A1034–A1062, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benner:2021:RPB

[BKK⁺21] Peter Benner, Venera Khoromskaia, Boris Khoromskij, Cleophas Kweyu, and Matthias Stein. Regularization of Poisson–Boltzmann type equations with singular source terms using the range-separated tensor format. *SIAM Journal on Scientific Computing*, 43(1):A415–A445, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BKKM22]

Boon:2022:RMS

Wietse M. Boon, Timo Koch, Miroslav Kuchta, and Kent-André Mardal. Robust monolithic solvers for the Stokes–Darcy problem with the Darcy equation in primal form. *SIAM Journal on Scientific Computing*, 44(4):B1148–B1174, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452974>.

Bakhos:2017:MGS

[BKL⁺17]

Tania Bakhos, Peter K. Kitanidis, Scott Ladenheim, Arvind K. Saibaba, and Daniel B. Szyld. Multipreconditioned GMRES for shifted systems. *SIAM Journal on Scientific Computing*, 39(5):S222–S247, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Baerland:2019:MMD

Trygve Bærland, Miroslav Kuchta, and Kent-Andre Mardal. Multigrid methods for discrete fractional Sobolev spaces. *SIAM Journal on Scientific Computing*, 41(2):A948–A972, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brannick:2010:LSF

- [BKMM10] J. Brannick, C. Ketelsen, T. Manteuffel, and S. McCormick. Least-squares finite element methods for quantum electrodynamics. *SIAM Journal on Scientific Computing*, 32(1):398–417, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BKS13]

Boon:2021:RPP

- [BKMRB21] Wietse M. Boon, Miroslav Kuchta, Kent-Andre Mardal, and Ricardo Ruiz-Baier. Robust preconditioners for perturbed saddle-point problems and conservative discretizations of Biot’s equations utilizing total pressure. *SIAM Journal on Scientific Computing*, 43(4):B961–B983, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BKS16a]

Budd:1998:SCD

- [BKS98] C. J. Budd, G. P. Koomullil, and A. M. Stuart. On the solution of convection-diffusion boundary value problems using equidistributed grids. *SIAM Journal on Scientific Computing*, 20(2):591–618, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28045>. [BKS16b]

Brune:2013:UGM

Peter R. Brune, Matthew G. Knepley, and L. Ridgway Scott. Unstructured geometric multigrid in two and three dimensions on complex and graded meshes. *SIAM Journal on Scientific Computing*, 35(1):A173–A191, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Benner:2016:FLB

Peter Benner, Patrick Kürschner, and Jens Saak. Frequency-limited balanced truncation with low-rank approximations. *SIAM Journal on Scientific Computing*, 38(1):A471–A499, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bolten:2016:MMT

Matthias Bolten, Karsten Kahl, and Sonja Sokolović. Multigrid methods for tensor structured Markov chains with low rank approximation. *SIAM Journal on Scientific Computing*, 38(2):A649–A667, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Botchev:2021:RRK

Mike A. Botchev, Leonid Knizhnerman, and Eugene E. Tyrtshnikov. Residual and

- restarting in Krylov subspace evaluation of the φ function. *SIAM Journal on Scientific Computing*, 43(6): A3733–A3759, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BL03c]
- [BL99] A. W. Bojanczyk and A. Lutoborski. The Procrustes problem for orthogonal Stiefel matrices. *SIAM Journal on Scientific Computing*, 21(4):1291–1304, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30992>.
- [BL03a] **Bao:2003:NSI**
Gang Bao and Jun Liu. Numerical solution of inverse scattering problems with multi-experimental limited aperture data. *SIAM Journal on Scientific Computing*, 25(3):1102–1117, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40970>.
- [BL03b] **Bojanczyk:2003:PPO**
Adam W. Bojanczyk and Adam Lutoborski. The Procrustes problem for orthogonal Kronecker products. *SIAM Journal on Scientific Computing*, 25(1):148–163, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BL03c] **Bryson:2003:CSM**
Steve Bryson and Doron Levy. Central schemes for multidimensional Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 25(3):767–791, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39496>.
- [BL04a] **Bank:2004:DDS**
Randolph E. Bank and Shaoying Lu. A domain decomposition solver for a parallel adaptive meshing paradigm. *SIAM Journal on Scientific Computing*, 26(1):105–127, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42809>.
- [BL04b] **Bennighof:2004:AMS**
Jeffrey K. Bennighof and R. B. Lehoucq. An automated multilevel substructuring method for eigenspace computation in linear elastodynamics. *SIAM Journal on Scientific Computing*, 25(6):2084–2106, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40065>. [BL08a]
- Bryson:2005:BCS**
- [BL05] Steve Bryson and Doron Levy. Balanced central schemes for the shallow water equations on unstructured grids. *SIAM Journal on Scientific Computing*, 27(2):532–552, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60553>.
- Benzi:2007:ESI**
- [BL07a] Michele Benzi and Jia Liu. An efficient solver for the incompressible Navier–Stokes equations in rotation form. *SIAM Journal on Scientific Computing*, 29(5):1959–1981, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BL23a]
- Bond:2007:SIH**
- [BL07b] Stephen D. Bond and Benedict J. Leimkuhler. Stabilized integration of Hamiltonian systems with hard-sphere inequality constraints. *SIAM Journal on Scientific Computing*, 30(1):134–147, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BL23b]
- Bao:2008:CGS**
- Weizhu Bao and Fong Yin Lim. Computing ground states of spin-1 Bose–Einstein condensates by the normalized gradient flow. *SIAM Journal on Scientific Computing*, 30(4):1925–1948, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bredies:2008:IHS**
- [BL08b] Kristian Bredies and Dirk A. Lorenz. Iterated hard shrinkage for minimization problems with sparsity constraints. *SIAM Journal on Scientific Computing*, 30(2):657–683, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bao:2023:SPF**
- [BL23a] Weizhu Bao and Yifei Li. A symmetrized parametric finite element method for anisotropic surface diffusion in three dimensions. *SIAM Journal on Scientific Computing*, 45(4):A1438–A1461, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1500575>.
- Bhattacharya:2023:SGS**
- [BL23b] Debdeep Bhattacharya and Robert P. Lipton. Simulating grain shape effects and

- damage in granular media using PeriDEM. *SIAM Journal on Scientific Computing*, 45(1):B1–B26, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/doi/10.1137/21M1439389>. [BLB00]
- [Bla97] Kelly Black. A spectral element technique with a local spectral basis. *SIAM Journal on Scientific Computing*, 18(2):355–370, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26871>. **Black:1997:SET**
- [Bla98] Kelly Black. Spectral elements on infinite domain. *SIAM Journal on Scientific Computing*, 19(5):1667–1681, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30141>. **Black:1998:SEI**
- [Bla03] Luise Blank. Preconditioning via a Schur complement method: An application in state estimation. *SIAM Journal on Scientific Computing*, 25(3):942–960, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39908>. **Blank:2003:PSC**
- [BLH02] M. J. Baines, S. J. Leary, and M. E. Hubbard. Multidimensional least squares fluctuation distribution schemes with adaptive mesh movement for steady hyperbolic equations. *SIAM Journal on*
- R. K. Beatson, W. A. Light, and S. Billings. Fast solution of the radial basis function interpolation equations: Domain decomposition methods. *SIAM Journal on Scientific Computing*, 22(5):1717–1740, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36177>. **Beatson:2000:FSR**
- [BLGL11] Wurigen Bo, Xingtao Liu, James Glimm, and Xiaolin Li. A robust front tracking method: Verification and application to simulation of the primary breakup of a liquid jet. *SIAM Journal on Scientific Computing*, 33(4):1505–1524, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1505_s1. **Bo:2011:RFT**

- Scientific Computing*, 23(5): 1485–1502, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37020>.
- [BLL07] Kevin Burrage, Ian Lenane, and Grant Lythe. Numerical methods for second-order stochastic differential equations. *SIAM Journal on Scientific Computing*, 29(1): 245–264, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BLM03] P. N. Brown, B. Lee, and T. A. Manteuffel. A moment-parity multigrid preconditioner for the first-order system least-squares formulation of the Boltzmann transport equation. *SIAM Journal on Scientific Computing*, 25(2):513–533, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40717>.
- [BLM22] Dario Bini, Guy Latouche, and Beatrice Meini. Numerical solution of a matrix integral equation arising in Markov-modulated Lévy processes. *SIAM Journal on*
- Scientific Computing*, 44(4): A2669–A2690, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1436543>.
- [BLMR02] Derek S. Bale, Randall J. LeVeque, Sorin Mitran, and James A. Rossmannith. A wave propagation method for conservation laws and balance laws with spatially varying flux functions. *SIAM Journal on Scientific Computing*, 24(3): 955–978, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39738>.
- [BLMS21] E. G. Birgin, A. Laurain, R. Massambone, and A. G. Santana. A shape optimization approach to the problem of covering a two-dimensional region with minimum-radius identical balls. *SIAM Journal on Scientific Computing*, 43(3):A2047–A2078, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BLMS22] Ernesto G. Birgin, Antoine Laurain, Rafael Massambone, and Arthur G. Santana. A

- shape-Newton approach to the problem of covering with identical balls. *SIAM Journal on Scientific Computing*, 44(2):A798–A824, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1426067>.
- [BLN95] Richard H. Byrd, Peihuang Lu, Jorge Nocedal, and Ci You Zhu. A limited memory algorithm for bound constrained optimization. *SIAM Journal on Scientific Computing*, 16(5):1190–1208, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BLP14] Shujun Bi, Xiaolan Liu, and Shaohua Pan. Exact penalty decomposition method for zero-norm minimization based on MPEC formulation. *SIAM Journal on Scientific Computing*, 36(4):A1451–A1477, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BLR99] Eric Barth, Benedict Leimkuhler, and Sebastian Reich. A time-reversible variable-stepsize integrator for constrained dynamics. *SIAM Journal on Scientific Computing*, 21(3):1027–1044, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31419>.
- [BLR14] Sebastiano Boscarino, Philippe G. LeFloch, and Giovanni Russo. High-order asymptotic-preserving methods for fully nonlinear relaxation problems. *SIAM Journal on Scientific Computing*, 36(2):A377–A395, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BLS06] V. Baramidze, M. J. Lai, and C. K. Shum. Spherical splines for data interpolation and fitting. *SIAM Journal on Scientific Computing*, 28(1):241–259, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62072.html.
- [BLS09] Weizhu Bao, Hailiang Li, and Jie Shen. A generalized-Laguerre–Fourier–Hermite pseudospectral method for computing the dynamics of rotating Bose–Einstein condensates. *SIAM Journal on Scientific Computing*, 31(5):

3685–3711, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Berninger:2014:LMM

[BLS14]

Heiko Berninger, Sébastien Loisel, and Oliver Sander. The 2-Lagrange multiplier method applied to nonlinear transmission problems for the Richards equation in heterogeneous soil with cross points. *SIAM Journal on Scientific Computing*, 36(5):A2166–A2198, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BLVZ23]

1064-8275 (print), 1095-7197 (electronic).

Bonnet:2023:SOP

Marc Bonnet, Ruowen Liu, Shravan Veerapaneni, and Hai Zhu. Shape optimization of peristaltic pumps transporting rigid particles in Stokes flow. *SIAM Journal on Scientific Computing*, 45(1):B78–B106, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M144863X>.

Barker:2017:SUG

[BLV17]

Andrew T. Barker, Chak S. Lee, and Panayot S. Vassilevski. Spectral upscaling for graph Laplacian problems with application to reservoir simulation. *SIAM Journal on Scientific Computing*, 39(5):S323–S346, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BLY21]

Bespalov:2021:TPS

Alex Bespalov, Daniel Loghin, and Rawin Youngnoi. Truncation preconditioners for stochastic Galerkin finite element discretizations. *SIAM Journal on Scientific Computing*, 43(5):S92–S116, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bai:2018:RRQ

[BLV18]

Zhaojun Bai, Ding Lu, and Bart Vandereycken. Robust Rayleigh quotient minimization and nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(5):A3495–A3522, 2018. CODEN SJOCE3. ISSN

[BM95a]

Benzi:1995:DPM

Michele Benzi and Carl D. Meyer. A direct projection method for sparse linear systems. *SIAM Journal on Scientific Computing*, 16(5):1159–1176, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BM95b] **Brandt:1995:RIM**
 A. Brandt and V. Mikulin-sky. On recombining iterants in multigrid algorithms and problems with small islands. *SIAM Journal on Scientific Computing*, 16(1):20–28, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BM00] **Brusdal:2000:BNR**
 Kari Brusdal and Trond Mannseth. Basis norm rescaling for nonlinear parameter estimation. *SIAM Journal on Scientific Computing*, 21(6):2114–2125, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34164>.
- [BM01a] **Bellavia:2001:GCN**
 Stefania Bellavia and Benedetta Morini. A globally convergent Newton–GMRES subspace method for systems of nonlinear equations. *SIAM Journal on Scientific Computing*, 23(3):940–960, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36397>.
- [BM01b] **Berrut:2001:LRP**
 Jean-Paul Berrut and Hans D. Mittelmann. The linear rational pseudospectral method with iteratively optimized poles for two-point boundary value problems. *SIAM Journal on Scientific Computing*, 23(3):961–975, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36615>.
- [BM05] **Beylkin:2005:ANA**
 Gregory Beylkin and Martin J. Mohlenkamp. Algorithms for numerical analysis in high dimensions. *SIAM Journal on Scientific Computing*, 26(6):2133–2159, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60495>.
- [BM08] **Berthon:2008:PPH**
 Christophe Berthon and Fabien Marche. A positive preserving high order VFRoe scheme for shallow water equations: a class of relaxation schemes. *SIAM Journal on Scientific Computing*, 30(5):2587–2612, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BM10a] **Borisov:2010:SMCa**
 V. S. Borisov and M. Mond. On stability, monotonicity, and construction of difference schemes I: Theory. *SIAM*

- Journal on Scientific Computing*, 32(5):2765–2792, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BM17a]
- [BM10b] **Borisov:2010:SMCb**
V. S. Borisov and M. Mond. On stability, monotonicity, and construction of difference schemes II: Applications. *SIAM Journal on Scientific Computing*, 32(5): 2793–2819, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BM17b]
- [BM11] **Balazovjech:2011:HOS**
Martin Balazovjech and Karol Mikula. A higher order scheme for a tangentially stabilized plane curve shortening flow with a driving force. *SIAM Journal on Scientific Computing*, 33(5): 2277–2294, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i5/p2277_s1 [BM18]
- [BM12] **Benner:2012:CAS**
Peter Benner and Thomas Mach. Computing all or some eigenvalues of symmetric \mathcal{H}_ℓ -Matrices. *SIAM Journal on Scientific Computing*, 34(1): A485–A496, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BMaK19]
- Bao:2017:AMB**
Feng Bao and Vasileios Maroulas. Adaptive meshfree backward SDE filter. *SIAM Journal on Scientific Computing*, 39(6):A2664–A2683, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bhatt:2017:SPE**
Ashish Bhatt and Brian E. Moore. Structure-preserving exponential Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 39(2): A593–A612, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Benner:2018:FMA**
Peter Benner and Tim Mitchell. Faster and more accurate computation of the \mathcal{H}_∞ norm via optimization. *SIAM Journal on Scientific Computing*, 40(5): A3609–A3635, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Barnett:2019:PNF**
Alexander H. Barnett, Jeremy Magland, and Ludvig af Klinteberg. A parallel nonuniform fast Fourier transform library based on an “exponential of semicircle” kernel. *SIAM Journal on Scientific Computing*, 41(5):C479–

C504, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BMF19]

Bennoune:2016:JCI

[BMDO16]

Mounir Bennoune, Jérôme Morin-Drouin, and Robert G. Owens. On the jump conditions for an immersed interface method. *SIAM Journal on Scientific Computing*, 38(3):A1280–A1316, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brunet:1993:HAD

[BME93]

Jean-Philippe Brunet, Jill P. Mesirov, and Alan Edelman. Hypercube algorithms for direct N -body solvers for different granularities. *SIAM Journal on Scientific Computing*, 14(5):1143–1158, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See erratum [BEM94].

[BMM98]

Bogaert:2012:CLP

[BMF12]

I. Bogaert, B. Michiels, and J. Fostier. $\mathcal{O}(\infty)$ computation of Legendre polynomials and Gauss–Legendre nodes and weights for parallel computing. *SIAM Journal on Scientific Computing*, 34(3):C83–C101, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[BMM⁺10]**Bello-Maldonado:2019:SLO**

Pedro D. Bello-Maldonado and Paul F. Fischer. Scalable low-order finite element preconditioners for high-order spectral element Poisson solvers. *SIAM Journal on Scientific Computing*, 41(5):S2–S18, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bergamaschi:1998:MFE

Luca Bergamaschi, Stefano Mantica, and Gianmarco Manzini. A mixed finite element–finite volume formulation of the black-oil model. *SIAM Journal on Scientific Computing*, 20(3):970–997, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28930>.

Brezina:2010:TAS

M. Brezina, T. Manteuffel, S. McCormick, J. Ruge, and G. Sanders. Towards adaptive smoothed aggregation (α SA) for nonsymmetric problems. *SIAM Journal on Scientific Computing*, 32(1):14–39, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BMMM08] **Bru:2008:BIF** Rafael Bru, José Marín, José Mas, and M. T. Ma. Balanced incomplete factorization. *SIAM Journal on Scientific Computing*, 30(5):2302–2318, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMMR20] **Bini:2020:CFT** Dario A. Bini, Stefano Masci, Beatrice Meini, and Leonardo Robol. A computational framework for two-dimensional random walks with restarts. *SIAM Journal on Scientific Computing*, 42(4):A2108–A2133, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMNT14] **Bru:2014:PIM** Rafael Bru, José Marín, José Mas, and Miroslav Tuma. Preconditioned iterative methods for solving linear least squares problems. *SIAM Journal on Scientific Computing*, 36(4):A2002–A2022, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMNV20] **Badia:2020:GFE** Santiago Badia, Alberto F. Martín, Eric Neiva, and Francesc Verdugo. A generic finite element framework on parallel tree-based adaptive meshes. *SIAM Journal on Scientific Computing*, 42(6):C436–C468, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMNV21] **Badia:2021:AUF** Santiago Badia, Alberto F. Martín, Eric Neiva, and Francesc Verdugo. The aggregated unfitted finite element method on parallel tree-based adaptive meshes. *SIAM Journal on Scientific Computing*, 43(3):C203–C234, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMP14] **Badia:2014:HSP** Santiago Badia, Alberto F. Martín, and Javier Principe. A highly scalable parallel implementation of balancing domain decomposition by constraints. *SIAM Journal on Scientific Computing*, 36(2):C190–C218, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMP16] **Badia:2016:MBD** Santiago Badia, Alberto F. Martín, and Javier Principe. Multilevel balancing domain decomposition at extreme scales. *SIAM Journal on Scientific Computing*, 38(1):C22–C52, 2016. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Bartels:2022:SSA

[BMP22]

Sören Bartels, Frank Meyer, and Christian Palus. Simulating self-avoiding isometric plate bending. *SIAM Journal on Scientific Computing*, 44(3):A1475–A1496, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1440001>.

Brust:2022:LSO

[BMPS22]

Johannes J. Brust, Roumel F. Marcia, Cosmin G. Petra, and Michael A. Saunders. Large-scale optimization with linear equality constraints using reduced compact representation. *SIAM Journal on Scientific Computing*, 44(1):A103–A127, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1393819>.

Bak:2010:SIF

[BMR10]

Stanley Bak, Joyce McLaughlin, and Daniel Renzi. Some improvements for the fast sweeping method. *SIAM Journal on Scientific Computing*, 32(5):2853–2874, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Burger:2013:HRE

[BMR13]

Martin Burger, Jan Modersitzki, and Lars Ruthotto. A hyperelastic regularization energy for image registration. *SIAM Journal on Scientific Computing*, 35(1):B132–B148, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Borzi:1997:MSC

[BMSV97]

A. Borzi, K. W. Morton, E. Süli, and M. Vanmaele. Multilevel solution of cell vertex Cauchy–Riemann equations. *SIAM Journal on Scientific Computing*, 18(2):441–459, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28195>.

Benzi:1996:SAI

[BMT96]

Michele Benzi, Carl D. Meyer, and Miroslav Tuma. A sparse approximate inverse preconditioner for the conjugate gradient method. *SIAM Journal on Scientific Computing*, 17(5):1135–1149, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27142>.

- [BMTZ13] **Bao:2013:SEN** Weizhu Bao, Daniel Marahrens, Qinglin Tang, and Yanzhi Zhang. A simple and efficient numerical method for computing the dynamics of rotating Bose–Einstein condensates via rotating Lagrangian coordinates. *SIAM Journal on Scientific Computing*, 35(6):A2671–A2695, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMV13] **Burger:2013:RNS** Raimund Bürger, Pep Mulet, and Luis M. Villada. Regularized nonlinear solvers for IMEX methods applied to diffusively corrected multi-species kinematic flow models. *SIAM Journal on Scientific Computing*, 35(3):B751–B777, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMV05] **Breda:2005:PDM** D. Breda, S. Maset, and R. Vermiglio. Pseudospectral differencing methods for characteristic roots of delay differential equations. *SIAM Journal on Scientific Computing*, 27(2):482–495, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60160>.
- [BMV18] **Badia:2018:MAF** Santiago Badia, Alberto F. Martin, and Francesc Verdugo. Mixed aggregated finite element methods for the unfitted discretization of the Stokes problem. *SIAM Journal on Scientific Computing*, 40(6):B1541–B1576, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BMV11] **Brix:2011:RCA** Kolja Brix, Ralf Massjung, and Alexander Voss. Refinement and connectivity algorithms for adaptive discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 33(1):66–101, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p66_s1.
- [BN98a] **Baker:1998:SMV** Gregory Baker and André Nachbin. Stable methods for vortex sheet motion in the presence of surface tension. *SIAM Journal on Scientific Computing*, 19(5):1737–1766, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29656>.

- [BN98b] **Beatson:1998:FER** R. K. Beatson and G. N. Newsam. Fast evaluation of radial basis functions: Moment-based methods. *SIAM Journal on Scientific Computing*, 19(5):1428–1449, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29356>. [BN13]
- [BN00] **Bartnik:2000:NME** Robert Bartnik and Andrew H. Norton. Numerical methods for the Einstein equations in null quasi-spherical coordinates. *SIAM Journal on Scientific Computing*, 22(3):917–950, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35617>. [BN21]
- [BN05] **Bai:2005:IPN** Zhong-Zhi Bai and Michael K. Ng. On inexact preconditioners for nonsymmetric matrices. *SIAM Journal on Scientific Computing*, 26(5):1710–1724, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60409>. [BNFS13]
- Borgers:2013:ETD** Christoph B orgers and Alexander R. Nectow. Exponential time differencing for Hodgkin–Huxley-like ODEs. *SIAM Journal on Scientific Computing*, 35(3):B623–B643, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bonito:2021:NSS** Andrea Bonito and Murtazo Nazarov. Numerical simulations of surface quasigeostrophic flows on periodic domains. *SIAM Journal on Scientific Computing*, 43(2):B405–B430, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bacq:2023:NST** Pierre-Loic Bacq and Yvan Notay. A new semialgebraic two-grid method for Oseen problems. *SIAM Journal on Scientific Computing*, 45(3):S226–S253, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1429011>.
- Bustamante:2013:IBT** Veronica Mejia Bustamante, James G. Nagy, Steve S. J. Feng, and Ioannis Sechopoulos. Iterative breast tomosynthesis image reconstruction.

- [BO07] *SIAM Journal on Scientific Computing*, 35(5):S192–S208, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BNN23] **Boukhris:2023:AMU**
Siham Boukhris, Artem Napov, and Yvan Notay. Algebraic multigrid using a stencil-CSR hybrid format on GPUs. *SIAM Journal on Scientific Computing*, 45(3):C154–C178, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1480938>.
- [BNP15] **Berisha:2015:DSU**
Sebastian Berisha, James G. Nagy, and Robert J. Plemmons. Deblurring and sparse unmixing of hyperspectral images using multiple point spread functions. *SIAM Journal on Scientific Computing*, 37(5):S389–S406, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BO06] **Benzi:2006:ALB**
Michele Benzi and Maxim A. Olshanskii. An augmented Lagrangian-based approach to the Oseen problem. *SIAM Journal on Scientific Computing*, 28(6):2095–2113, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BO17] **Badia:2017:STB**
Santiago Badia and Marc Olm. Space-time balancing domain decomposition. *SIAM Journal on Scientific Computing*, 39(2):C194–C213, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BOB+19] **Banks:2019:HOA**
Jeffrey W. Banks, Andre Ganesini Odu, Richard Berger, Thomas Chapman, William Arrighi, and Stephan Brunner. High-order accurate conservative finite difference methods for Vlasov equations in 2d+2v. *SIAM Journal on Scientific Computing*, 41(5):B953–B982, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bøe93] **Boe:1993:MPG**
Øistein Bøe. A monotone Petrov–Galerkin method for quasilinear parabolic differential equations. *SIAM Journal on Scientific Computing*,
- Bank:2007:DFP**
Randolph E. Bank and Jeffrey S. Owall. Dual functions for a parallel adaptive method. *SIAM Journal on Scientific Computing*, 29(4):1511–1524, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- 14(5):1057–1071, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Bol03]
- Beams:2016:FEB**
- [BOF16] Natalie N. Beams, Luke N. Olson, and Jonathan B. Freund. A finite element based P³M method for N -body problems. *SIAM Journal on Scientific Computing*, 38(3):A1538–A1560, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bogaert:2014:IFC**
- [Bog14] I. Bogaert. Iteration-free computation of Gauss–Legendre quadrature nodes and weights. *SIAM Journal on Scientific Computing*, 36(3):A1008–A1026, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bui:2020:SMR**
- [BOKCW20] Quan M. Bui, Daniel Osei-Kuffuor, Nicola Castelletto, and Joshua A. White. A scalable multigrid reduction framework for multiphase poromechanics of heterogeneous media. *SIAM Journal on Scientific Computing*, 42(2):B379–B396, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bollhofer:2003:REI**
- Matthias Bollhöfer. A robust and efficient ILU that incorporates the growth of the inverse triangular factors. *SIAM Journal on Scientific Computing*, 25(1):86–103, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40341>.
- Bueno-Orovio:2006:SMP**
- [BOPGF06] Alfonso Bueno-Orovio, Víctor M. Pérez-García, and Flavio H. Fenton. Spectral methods for partial differential equations in irregular domains: The spectral smoothed boundary method. *SIAM Journal on Scientific Computing*, 28(3):886–900, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60757.html.
- Bar-On:1997:FDL**
- [BOR97] Ilan Bar-On and Victor Ryaboy. Fast diagonalization of large and dense complex symmetric matrices, with applications to quantum reaction dynamics. *SIAM Journal on Scientific Computing*, 18(5):1412–1435, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- [/epubs.siam.org/sam-bin/dbq/article/26905](https://epubs.siam.org/sam-bin/dbq/article/26905).
- [Bör07] Steffen Börm. Adaptive variable-rank approximation of general dense matrices. *SIAM Journal on Scientific Computing*, 30(1):148–168, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bör09] Steffen Börm. Construction of data-sparse \mathcal{H}^ϵ -matrices by hierarchical compression. *SIAM Journal on Scientific Computing*, 31(3):1820–1839, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BORTP19] Alfredo Buttari, Dominique Orban, Daniel Ruiz, and David Titley-Peloquin. A tridiagonalization method for symmetric saddle-point systems. *SIAM Journal on Scientific Computing*, 41(5):S409–S432, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bot23] M. A. Botchev. Coarse grid corrections in Krylov subspace evaluations of the matrix exponential. *SIAM Journal on Scientific Computing*, 45(3):S421–S438, 2023.
- [Bou01] Amin Boumenir. Sampling and eigenvalues of non-self-adjoint Sturm–Liouville problems. *SIAM Journal on Scientific Computing*, 23(1):219–229, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37407>.
- [Boz09] Farid Bozorgnia. Numerical algorithm for spatial segregation of competitive systems. *SIAM Journal on Scientific Computing*, 31(5):3946–3958, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BP97a] Christopher T. H. Baker and Christopher A. H. Paul. Pitfalls in parameter estimation for delay differential equations. *SIAM Journal on Scientific Computing*, 18(1):305–314, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28720>. Dedicated to C. William Gear on

the occasion of his 60th birthday.

- [BP97b] Susanne M. Balle and Palle M. Pedersen. SVD computations on the Connection Machine CM-5/CM-5E: Implementation and accuracy. *SIAM Journal on Scientific Computing*, 18(5):1462–1478, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28135>.
- [BP06] Fabian M. Buchmann and Wesley P. Petersen. An exit probability approach to solving high dimensional Dirichlet problems. *SIAM Journal on Scientific Computing*, 28(3):1153–1166, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BP12] Alexander Bihlo and Roman O. Popovych. Invariant discretization schemes for the shallow-water equations. *SIAM Journal on Scientific Computing*, 34(6):B810–B839, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BP13a] **Balle:1997:SCC**
- [BP13b] **Bourgault:2013:AAE**
- [BP22] **Bruno:2022:TDF**
- [BPB07] **Beardmore:2007:NBA**
- Bermejo:2013:SLP**
- Rodolfo Bermejo and Juan Luis Prieto. A semi-Lagrangian particle level set finite element method for interface problems. *SIAM Journal on Scientific Computing*, 35(4):A1815–A1846, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Yves Bourgault and Marco Picasso. Anisotropic error estimates and space adaptivity for a semidiscrete finite element approximation of the transient transport equation. *SIAM Journal on Scientific Computing*, 35(2):A1192–A1211, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Oscar P. Bruno and Jagabandhu Paul. Two-dimensional Fourier continuation and applications. *SIAM Journal on Scientific Computing*, 44(2):A964–A992, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1373189>.
- R. E. Beardmore, A. T. Pellow, and F. Bresme. A numerical bifurcation analysis

of the Ornstein–Zernike equation with hypernetted chain closure. *SIAM Journal on Scientific Computing*, 29(6):2442–2463, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bianco:1999:HOC

[BPR99]

Franca Bianco, Gabriella Puppo, and Giovanni Russo. High-order central schemes for hyperbolic systems of conservation laws. *SIAM Journal on Scientific Computing*, 21(1):294–322, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32499>.

[BPR16]

Barhen:2004:CUR

[BPR04]

Jacob Barhen, Vladimir Protopopescu, and David B. Reister. Consistent uncertainty reduction in modeling nonlinear systems. *SIAM Journal on Scientific Computing*, 26(2):653–665, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42752>.

[BPS13a]

Boscarino:2013:IER

[BPR13]

S. Boscarino, L. Pareschi, and G. Russo. Implicit-explicit Runge–Kutta schemes for hyperbolic systems and Kinetic

equations in the diffusion limit. *SIAM Journal on Scientific Computing*, 35(1):A22–A51, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bonettini:2016:VMF

S. Bonettini, F. Porta, and V. Ruggiero. A variable metric forward-backward method with extrapolation. *SIAM Journal on Scientific Computing*, 38(4):A2558–A2584, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Berrone:2013:SDF

Stefano Berrone, Sandra Pieraccini, and Stefano Scialò. On simulations of discrete fracture network flows with an optimization-based extended finite element method. *SIAM Journal on Scientific Computing*, 35(2):A908–A935, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Berrone:2013:PCO

[BPS13b]

Stefano Berrone, Sandra Pieraccini, and Stefano Scialò. A PDE-constrained optimization formulation for discrete fracture network flows. *SIAM Journal on Scientific Computing*, 35(2):B487–B510, 2013. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [BPS⁺14a] **BeiranodaVeiga:2014:IBP**
L. Beiraño da Veiga, L. F. Pavarino, S. Scacchi, O. B. Widlund, and S. Zampini. Isogeometric BDDC preconditioners with deluxe scaling. *SIAM Journal on Scientific Computing*, 36(3):A1118–A1139, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BPS14b] **Bespalov:2014:ENP**
Alex Bespalov, Catherine E. Powell, and David Silvester. Energy norm a posteriori error estimation for parametric operator equations. *SIAM Journal on Scientific Computing*, 36(2):A339–A363, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BPS22] **Bartel:2022:GTR**
Felix Bartel, Daniel Potts, and Michael Schmischke. Grouped transformations and regularization in high-dimensional explainable ANOVA approximation. *SIAM Journal on Scientific Computing*, 44(3):A1606–A1631, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1374547>.
- [BPSV15] **Berrone:2015:PSL**
Stefano Berrone, Sandra Pieraccini, Stefano Scialò, and Fabio Vicini. A parallel solver for large scale DFN flow simulations. *SIAM Journal on Scientific Computing*, 37(3):C285–C306, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BPT93] **Bischof:1993:CDA**
Christian H. Bischof, C.-T. Pan, and Ping Tak Peter Tang. A Cholesky up- and downdating algorithm for systolic and SIMD architectures. *SIAM Journal on Scientific Computing*, 14(3):670–676, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BPT⁺14] **Benson:2014:PDF**
Austin R. Benson, Jack Poulson, Kenneth Tran, Björn Engquist, and Lexing Ying. A parallel directional fast multipole method. *SIAM Journal on Scientific Computing*, 36(4):C335–C352, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BPT19] **Boutselis:2019:NTO**
George I. Boutselis, Yunpeng Pan, and Evangelos A. Theodorou. Numerical trajectory optimization

- for stochastic mechanical systems. *SIAM Journal on Scientific Computing*, 41(4): A2065–A2087, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BQQ08] **Badia:2008:SMB** Santiago Badia, Annalisa Quaini, and Alfio Quarteroni. Splitting methods based on algebraic factorization for fluid-structure interaction. *SIAM Journal on Scientific Computing*, 30(4): 1778–1805, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BQR18] **Boscarino:2018:IEI** [BR02] Sebastiano Boscarino, Jing-Mei Qiu, and Giovanni Russo. Implicit-explicit integral deferred correction methods for stiff problems. *SIAM Journal on Scientific Computing*, 40(2):A787–A816, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BQRX22] **Boscarino:2022:HOS** [BR05a] Sebastiano Boscarino, Jingmei Qiu, Giovanni Russo, and Tao Xiong. High order semi-implicit WENO schemes for all-Mach full Euler system of gas dynamics. *SIAM Journal on Scientific Computing*, 44(2):B368–B394, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bialecki:1995:FMD** Bernard Bialecki and Karin A. Remington. Fourier matrix decomposition methods for the least squares solution of singular Neumann and periodic Hermite bicubic collocation problems. *SIAM Journal on Scientific Computing*, 16(2):431–451, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Baxter:2002:NEE** B. J. C. Baxter and George Roussos. A new error estimate of the fast Gauss transform. *SIAM Journal on Scientific Computing*, 24(1):257–259, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39692>.
- Baglama:2005:AIR** James Baglama and Lothar Reichel. Augmented implicitly restarted Lanczos bidiagonalization methods. *SIAM Journal on Scientific Computing*, 27(1):19–42, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- epubs.siam.org/sam-bin/dbq/article/60593.
- [BR05b] Ernesto G. Birgin and Marcos Raydan. Robust stopping criteria for Dykstra’s algorithm. *SIAM Journal on Scientific Computing*, 26(4):1405–1414, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60062>.
- [BR09] Sebastiano Boscarino and Giovanni Russo. On a class of uniformly accurate IMEX Runge–Kutta schemes and applications to hyperbolic systems with relaxation. *SIAM Journal on Scientific Computing*, 31(3):1926–1945, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BR11] John C. Bowman and Malcolm Roberts. Efficient dealiased convolutions without padding. *SIAM Journal on Scientific Computing*, 33(1):386–406, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p386_s1.
- [BR14] Daniel Beylkin and Vladimir Rokhlin. Fitting a bandlimited curve to points in a plane. *SIAM Journal on Scientific Computing*, 36(3):A1048–A1070, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BR18] M. Bolten and H. Rittich. Fourier analysis of periodic stencils in multigrid methods. *SIAM Journal on Scientific Computing*, 40(3):A1642–A1668, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BR19] Weizhu Bao and Xinran Ruan. Computing ground states of Bose–Einstein condensates with higher order interaction via a regularized density function formulation. *SIAM Journal on Scientific Computing*, 41(6):B1284–B1309, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BRBT12] Raimund Bürger, Ricardo Ruiz-Baier, and Héctor Torres. A stabilized finite volume element formulation for sedimentation-consolidation

- processes. *SIAM Journal on Scientific Computing*, 34(3): B265–B289, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Bre17]
- [Bre96] Susanne C. Brenner. Preconditioning complicated finite elements by simple finite elements. *SIAM Journal on Scientific Computing*, 17(5): 1269–1274, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27706>. [BRK16]
- [Bre99] C. Brezinski. Error estimates for the solution of linear systems. *SIAM Journal on Scientific Computing*, 21(2):764–781, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32851>. [BRR18]
- [Bre00] Susanne C. Brenner. Lower bounds for two-level additive Schwarz preconditioners with small overlap. *SIAM Journal on Scientific Computing*, 21(5): 1657–1669, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33648>. [BRT07]
- [Bremer:2017:NCR] James Bremer. On the numerical calculation of the roots of special functions satisfying second order ordinary differential equations. *SIAM Journal on Scientific Computing*, 39(1):A55–A82, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bunder:2016:APD] J. E. Bunder, A. J. Roberts, and I. G. Kevrekidis. Accuracy of patch dynamics with mesoscale temporal coupling for efficient massively parallel simulations. *SIAM Journal on Scientific Computing*, 38(4):C335–C371, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bonettini:2018:IVM] S. Bonettini, S. Rebegoldi, and V. Ruggiero. Inertial variable metric techniques for the inexact forward–backward algorithm. *SIAM Journal on Scientific Computing*, 40(5):A3180–A3210, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Becache:2007:FDM] E. Bécache, J. Rodríguez, and C. Tsogka. A fictitious do-

- main method with mixed finite elements for elastodynamics. *SIAM Journal on Scientific Computing*, 29(3): 1244–1267, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BRZ14]
- Brumm:2015:FMF**
- [Bru15] B. Brumm. A fast matrix-free algorithm for spectral approximations to the Schrödinger equation. *SIAM Journal on Scientific Computing*, 37(4):A2003–A2025, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BS94]
- Brubaker:2018:CMC**
- [Bru18] Nicholas D. Brubaker. A continuation method for computing constant mean curvature surfaces with boundary. *SIAM Journal on Scientific Computing*, 40(4): A2568–A2583, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BS95]
- Buckwar:2010:SRK**
- [BRW10] Evelyn Buckwar, Andreas Rößler, and Renate Winkler. Stochastic Runge–Kutta methods for Itô SODEs with small noise. *SIAM Journal on Scientific Computing*, 32(4): 1789–1808, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BS96a]
- Brezinski:2014:STA**
- Claude Brezinski and Michela Redivo-Zaglia. The simplified topological ε -algorithms for accelerating sequences in a vector space. *SIAM Journal on Scientific Computing*, 36(5):A2227–A2247, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bailey:1994:FMN**
- David H. Bailey and Paul N. Swarztrauber. A fast method for the numerical evaluation of continuous Fourier and Laplace transforms. *SIAM Journal on Scientific Computing*, 15(5):1105–1110, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bailey:1995:EDC**
- David H. Bailey and Paul N. Swarztrauber. Efficient detection of a continuous-wave signal with a linear frequency drift. *SIAM Journal on Scientific Computing*, 16(5): 1233–1239, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Bao:1996:CPD**
- Gang Bao and William W. Symes. Computation of pseudo-differential operators. *SIAM Journal on Scien-*

tific Computing, 17(2):416–429, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25827>.

Boyse:1996:BQM

[BS96b]

William E. Boyse and Andrew A. Seidl. A block QMR method for computing multiple simultaneous solutions to complex symmetric systems. *SIAM Journal on Scientific Computing*, 17(1):263–274, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Barrio:1998:PAE

[BS98]

Roberto Barrio and Javier Sabadell. A parallel algorithm to evaluate Chebyshev series on a message passing environment. *SIAM Journal on Scientific Computing*, 20(3):964–969, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31285>.

Bank:1999:IFM

[BS99a]

Randolph E. Bank and R. Kent Smith. The incomplete factorization multigraph algorithm. *SIAM Jour-*

nal on Scientific Computing, 20(4):1349–1364, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31952>.

Bouaricha:1999:TML

[BS99b]

Ali Bouaricha and Robert B. Schnabel. Tensor methods for large, sparse nonlinear least squares problems. *SIAM Journal on Scientific Computing*, 21(4):1199–1221, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29754>.

Bank:2002:AMM

[BS02]

Randolph E. Bank and R. Kent Smith. An algebraic multilevel multigraph algorithm. *SIAM Journal on Scientific Computing*, 23(5):1572–1592, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38104>.

Bader:2003:CLT

[BS03]

Brett W. Bader and Robert B. Schnabel. Curvilinear linear search for tensor methods. *SIAM Journal on Scientific Computing*, 25(2):604–622, March 2003. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40665>.
- [BS04] **Borisov:2004:MDS** [BS05c] V. S. Borisov and S. Sorek. On monotonicity of difference schemes for computational physics. *SIAM Journal on Scientific Computing*, 25(5):1557–1584, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40669>.
- [BS05a] **Bai:2005:DRL** [BS05d] Zhaojun Bai and Yangfeng Su. Dimension reduction of large-scale second-order dynamical systems via a second-order Arnoldi method. *SIAM Journal on Scientific Computing*, 26(5):1692–1709, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60555>.
- [BS05b] **Bao:2005:FAE** [BS05e] Gang Bao and Weiwei Sun. A fast algorithm for the electromagnetic scattering from a large cavity. *SIAM Journal on Scientific Computing*, 27(2):553–574, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42853>.
- Bao:2005:FOT** Weizhu Bao and Jie Shen. A fourth-order time-splitting Laguerre–Hermite pseudospectral method for Bose–Einstein condensates. *SIAM Journal on Scientific Computing*, 26(6):2010–2028, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60121>.
- Bao:2005:ESN** Weizhu Bao and Fangfang Sun. Efficient and stable numerical methods for the generalized and vector Zakharov system. *SIAM Journal on Scientific Computing*, 26(3):1057–1088, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60094>.
- Bekas:2005:CSE** Constantine Bekas and Yousef Saad. Computation of smallest eigenvalues using spectral Schur complements. *SIAM Journal on Scientific Computing*, 27(2):458–481, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60094>.

epubs.siam.org/sam-bin/dbq/article/60352.

Bollhofer:2005:MPC

- [BS05f] Matthias Bollhöfer and Yousef Saad. Multilevel preconditioners constructed from inverse-based ILUs. *SIAM Journal on Scientific Computing*, 27(5):1627–1650, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60837.html. [BS08]

Budko:2006:SVI

- [BS06a] Neil V. Budko and Alexander B. Samokhin. Spectrum of the volume integral operator of electromagnetic scattering. *SIAM Journal on Scientific Computing*, 28(2):682–700, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63066.html. [BS15a]

Buffa:2006:ASL

- [BS06b] A. Buffa and S. Sauter. On the acoustic single layer potential: Stabilization and Fourier analysis. *SIAM Journal on Scientific Computing*, 28(5):1974–1999, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BS15b]

Bader:2007:PTM

- [BS07] Brett W. Bader and Robert B. Schnabel. On the perfor-

mance of tensor methods for solving ill-conditioned problems. *SIAM Journal on Scientific Computing*, 29(6):2329–2351, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Babuska:2008:ESA

I. Babuška and S. A. Sauter. Efficient solution of anisotropic lattice equations by the recovery method. *SIAM Journal on Scientific Computing*, 30(5):2386–2404, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bermejo:2015:MLG

R. Bermejo and L. Saavedra. Modified Lagrange–Galerkin methods to integrate time dependent incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 37(6):B779–B803, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bosch:2015:PVV

Jessica Bosch and Martin Stoll. Preconditioning for vector-valued Cahn–Hilliard equations. *SIAM Journal on Scientific Computing*, 37(5):S216–S243, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BS16a] **Bauman:2016:GMF**
 Paul T. Bauman and Roy H. Stogner. GRINS: a multi-physics framework based on the libMesh finite element library. *SIAM Journal on Scientific Computing*, 38(5): S78–S100, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BS16b] **Bespalov:2016:EAS**
 Alex Bespalov and David Silvester. Efficient adaptive stochastic Galerkin methods for parametric operator equations. *SIAM Journal on Scientific Computing*, 38(4): A2118–A2140, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BS18a] **Bao:2018:UOA**
 Weizhu Bao and Chunmei Su. A uniformly and optimally accurate method for the Zakharov system in the subsonic limit regime. *SIAM Journal on Scientific Computing*, 40(2):A929–A953, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BS18b] **Buhr:2018:RLM**
 Andreas Buhr and Kathrin Smetana. Randomized local model order reduction. *SIAM Journal on Scientific Computing*, 40(4):A2120–A2151, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BS23a] **Bespalov:2023:EEA**
 Alex Bespalov and David Silvester. Error estimation and adaptivity for stochastic collocation finite elements. Part II: Multilevel approximation. *SIAM Journal on Scientific Computing*, 45(2): A781–A797, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1479361>.
- [BS23b] **Brust:2023:PPL**
 Johannes J. Brust and Michael A. Saunders. PLSS: a projected linear systems solver. *SIAM Journal on Scientific Computing*, 45(2): A1012–A1037, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1509783>.
- [BSA13] **Brown:2013:ATM**
 Jed Brown, Barry Smith, and Aron Ahmadi. Achieving textbook multigrid efficiency for hydrostatic ice sheet flow. *SIAM Journal on Scientific Computing*, 35(2): B359–B375, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BSH16] **Ballard:2016:RCC**
 Grey Ballard, Christopher Siefert, and Jonathan Hu. Reducing communication costs for sparse matrix multiplication within algebraic multigrid. *SIAM Journal on Scientific Computing*, 38(3):C203–C231, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSHL14] **Bardsley:2014:RTO**
 Johnathan M. Bardsley, Antti Solonen, Heikki Haario, and Marko Laine. Randomize-then-optimize: a method for sampling from posterior distributions in nonlinear inverse problems. *SIAM Journal on Scientific Computing*, 36(4):A1895–A1910, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSMM16] **Becerra-Sagredo:2016:MPH**
 Julián Becerra-Sagredo, Carlos Málaga, and Francisco Mandujano. Moments preserving and high-resolution semi-Lagrangian advection scheme. *SIAM Journal on Scientific Computing*, 38(4):A2141–A2161, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSS09] **Benkhaldoun:2009:SST**
 Fayssal Benkhaldoun, Slah Sahnim, and Mohammed Seaid. Solution of the sediment transport equations using a finite volume method based on sign matrix. *SIAM Journal on Scientific Computing*, 31(4):2866–2889, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSS17] **Betcke:2017:OLD**
 T. Betcke, N. Salles, and W. Śmigaj. Overresolving in the Laplace domain for convolution quadrature methods. *SIAM Journal on Scientific Computing*, 39(1):A188–A213, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSS21] **Bunger:2021:LRM**
 Alexandra Bünger, Valeria Simoncini, and Martin Stoll. A low-rank matrix equation method for solving PDE-Constrained optimization problems. *SIAM Journal on Scientific Computing*, 43(5):S637–S654, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSSS23] **Bastian:2023:MSD**
 Peter Bastian, Robert Scheichl, Linus Seelinger, and Arne Strehlow. Multilevel spectral domain decomposition. *SIAM Journal on Scientific Computing*, 45(3):S1–S26, 2023. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427231>.
- [BSSW13] Peter Benner, Jens Saak, Martin Stoll, and Heiko K. Weichelt. Efficient solution of large-scale saddle point systems arising in Riccati-based boundary feedback stabilization of incompressible Stokes flow. *SIAM Journal on Scientific Computing*, 35(5):S150–S170, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BST08] Mapundi K. Banda, Mohammed Seaïd, and Ioan Teleaga. Large-eddy simulation of thermal flows based on discrete-velocity models. *SIAM Journal on Scientific Computing*, 30(4):1756–1777, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSU19] Julia Brunken, Kathrin Smetana, and Karsten Urban. (parametrized) first order transport equations: Realization of optimally stable Petrov–Galerkin methods. *SIAM Journal on Scientific Computing*, 41(1):A592–A621, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSV19] S. Berrone, S. Scialò, and F. Vicini. Parallel meshing, discretization, and computation of flow in massive discrete fracture networks. *SIAM Journal on Scientific Computing*, 41(4):C317–C338, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BSvD99] Michele Benzi, Daniel B. Szyld, and Arno van Duin. Orderings for incomplete factorization preconditioning of nonsymmetric problems. *SIAM Journal on Scientific Computing*, 20(5):1652–1670, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32684>.
- [BSX22] Alex Bespalov, David J. Silvester, and Feng Xu. Error estimation and adaptivity for stochastic collocation finite elements. Part I: Single-level approximation. *SIAM Journal on Scientific Computing*, 44(5):A3393–A3412, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-

7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446745>.

Bjorstad:1997:TCE

- [BT97] Petter E. Bjørstad and Bjørn Peter Tjøstheim. Timely communication: Efficient algorithms for solving a fourth-order equation with the Spectral-Galerkin method. *SIAM Journal on Scientific Computing*, 18(2):621–632, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29823>. [BT00a]

Benzi:1998:SAI

- [BT98] Michele Benzi and Miroslav Tuma. A sparse approximate inverse preconditioner for nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 19(3):968–994, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29469>. [BT00b]

Bridson:1999:OAF

- [BT99] Robert Bridson and Wei-Pai Tang. Ordering, anisotropy, and factored sparse approximate inverses. *SIAM Journal on Scientific Computing*, 21(3):867–882, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33584>.

Benzi:2000:OFS

Michele Benzi and Miroslav Tuma. Orderings for factorized sparse approximate inverse preconditioners. *SIAM Journal on Scientific Computing*, 21(5):1851–1868, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33937>.

Bridson:2000:SDS

Robert Bridson and Wei-Pai Tang. A structural diagnosis of some IC orderings. *SIAM Journal on Scientific Computing*, 22(5):1527–1532, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35384>.

Bridson:2001:MAI

- [BT01] Robert Bridson and Wei-Pai Tang. Multiresolution approximate inverse preconditioners. *SIAM Journal on Scientific Computing*, 23(2):463–479, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37378>.

Baltensperger:2003:SDT

- [BT03a] Richard Baltensperger and Manfred R. Trummer. Spectral differencing with a twist. *SIAM Journal on Scientific Computing*, 24(5):1465–1487, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38818>.

Banjai:2003:MMS

- [BT03b] Lehel Banjai and L. N. Trefethen. A multipole method for Schwarz–Christoffel mapping of polygons with thousands of sides. *SIAM Journal on Scientific Computing*, 25(3):1042–1065, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41167>.

Benzi:2003:RPL

- [BT03c] Michele Benzi and Miroslav Tuma. A robust preconditioner with low memory requirements for large sparse least squares problems. *SIAM Journal on Scientific Computing*, 25(2):499–512, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40649>.

Battles:2004:EMC

- [BT04] Zachary Battles and Lloyd N. Trefethen. An extension of MATLAB to continuous functions and operators. *SIAM Journal on Scientific Computing*, 25(5):1743–1770, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43012>.

Balbas:2006:NCS

- [BT06] Jorge Balbás and Eitan Tadmor. Nonoscillatory central schemes for one- and two-dimensional magnetohydrodynamics equations. II: High-order semi-discrete schemes. *SIAM Journal on Scientific Computing*, 28(2):533–560, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61024.html.

Boubendir:2013:DDM

- [BT13] Yassine Boubendir and Svetlana Tlupova. Domain decomposition methods for solving Stokes–Darcy problems with boundary integrals. *SIAM Journal on Scientific Computing*, 35(1):B82–B106, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [BT16] **Bui-Thanh:2016:CAH** Tan Bui-Thanh. Construction and analysis of HDG methods for linearized shallow water equations. *SIAM Journal on Scientific Computing*, 38(6):A3696–A3719, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BT19] **Buvoli:2019:CNT** Tommaso Buvoli and Maya Tokman. Constructing new time integrators using interpolating polynomials. *SIAM Journal on Scientific Computing*, 41(5):A2911–A2937, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BT20a] **Boso:2020:DIM** Francesca Boso and Daniel M. Tartakovsky. Data-informed method of distributions for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 42(1):A559–A583, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BT20b] **Boulle:2020:CFB** Nicolas Boullé and Alex Townsend. Computing with functions in the ball. *SIAM Journal on Scientific Computing*, 42(4):C169–C191, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BT21] **Buchatsky:2021:FWI** Sagi Buchatsky and Eran Treister. Full waveform inversion using extended and simultaneous sources. *SIAM Journal on Scientific Computing*, 43(5):S862–S883, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BT22] **Brubeck:2022:LSS** Pablo D. Brubeck and Lloyd N. Trefethen. Lightning Stokes solver. *SIAM Journal on Scientific Computing*, 44(3):A1205–A1226, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1408579>.
- [BTB05] **Brezina:2005:PAM** Marian Brezina, Charles Tong, and Richard Becker. Parallel algebraic multigrids for structural mechanics. *SIAM Journal on Scientific Computing*, 27(5):1534–1554, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60827.html.
- [BTGH12] **Bui-Thanh:2012:AHB** Tan Bui-Thanh, Omar Ghattas, and David Higdon. Adaptive Hessian-based non-stationary Gaussian process response surface method for

probability density approximation with application to Bayesian solution of large-scale inverse problems. *SIAM Journal on Scientific Computing*, 34(6):A2837–A2871, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bui-Thanh:2013:CFI

[BTGMS13]

Tan Bui-Thanh, Omar Ghattas, James Martin, and Georg Stadler. A computational framework for infinite-dimensional Bayesian inverse problems. Part I: The linearized case, with application to global seismic inversion. *SIAM Journal on Scientific Computing*, 35(6):A2494–A2523, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Boukaram:2019:RGA

[BTK19]

Wajih Boukaram, George Turkiyyah, and David Keyes. Randomized GPU algorithms for the construction of hierarchical matrices from matrix–vector operations. *SIAM Journal on Scientific Computing*, 41(4):C339–C366, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bui-Thanh:2022:BIT

[BTLZN22]

Tan Bui-Thanh, Qin Li, and Leonardo Zepeda-Núñez. Bridging and improving the

oretical and computational electrical impedance tomography via data completion. *SIAM Journal on Scientific Computing*, 44(3):B668–B693, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M141703X>.

Britt:2013:HON

[BTT13]

D. S. Britt, S. V. Tsynkov, and E. Turkel. A high-order numerical method for the Helmholtz equation with nonstandard boundary conditions. *SIAM Journal on Scientific Computing*, 35(5):A2255–A2292, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bozdag:2010:DMP

[BtVÇG⁺10]

Doruk Bozdağ, Üm t V. Çatalyürek, Assefaw H. Gebremedhin, Fredrik Manne, Erik G. Boman, and Füsün Özgüner. Distributed-memory parallel algorithms for distance-2 coloring and related problems in derivative computation. *SIAM Journal on Scientific Computing*, 32(4):2418–2446, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Bui-Thanh:2008:MRL

[BTWG08]

T. Bui-Thanh, K. Willcox, and O. Ghattas. Model re-

- duction for large-scale systems with high-dimensional parametric input space. *SIAM Journal on Scientific Computing*, 30(6):3270–3288, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BTY08] Pratik Biswas, Kim-Chuan Toh, and Yinyu Ye. A distributed SDP approach for large-scale noisy anchor-free graph realization with applications to molecular conformation. *SIAM Journal on Scientific Computing*, 30(3):1251–1277, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BU15] Christian Boehm and Michael Ulbrich. A semismooth Newton–CG method for constrained parameter identification in seismic tomography. *SIAM Journal on Scientific Computing*, 37(5):S334–S364, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bur97] Richard H. Burkhart. Asymptotic expansion of the free-space Green’s function for the discrete 3-D Poisson equation. *SIAM Journal on Scientific Computing*, 18(4):1142–1162, July 1997.
- [Bur13] Erik Burman. Stabilized finite element methods for non-symmetric, noncoercive, and ill-posed problems. Part I: Elliptic equations. *SIAM Journal on Scientific Computing*, 35(6):A2752–A2780, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26158>.
- [Bur14] Erik Burman. Stabilized finite element methods for non-symmetric, noncoercive, and ill-posed problems. Part II: Hyperbolic equations. *SIAM Journal on Scientific Computing*, 36(4):A1911–A1936, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Bur23] Erik Burman. Some observations on the interaction between linear and nonlinear stabilization for continuous finite element methods applied to hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 45(1):A96–A122, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://doi.org/10.1137/23M1064827>.

[//epubs.siam.org/doi/10.1137/21M1464154](http://epubs.siam.org/doi/10.1137/21M1464154).

Buttari:2013:FGM

- [But13] Alfredo Buttari. Fine-grained multithreading for the multifrontal QR factorization of sparse matrices. *SIAM Journal on Scientific Computing*, 35(4):C323–C345, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buvoli:2020:CEI

- [Buv20] Tommaso Buvoli. A class of exponential integrators based on spectral deferred correction. *SIAM Journal on Scientific Computing*, 42(1):A1–A27, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Buvoli:2021:EPB

- [Buv21] Tommaso Buvoli. Exponential polynomial block methods. *SIAM Journal on Scientific Computing*, 43(3):A1692–A1722, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Brandt:1998:MEI

- [BV98] A. Brandt and C. H. Vener. Multilevel evaluation of integral transforms with asymptotically smooth kernels. *SIAM Journal on Scientific Computing*, 19(2):

468–492, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28555>.

Borggaard:2000:ESC

- [BV00] Jeff Borggaard and Arun Verma. On efficient solutions to the continuous sensitivity equation using automatic differentiation. *SIAM Journal on Scientific Computing*, 22(1):39–62, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35213>.

Bardsley:2003:NCC

- [BV03] Johnathan M. Bardsley and Curtis R. Vogel. A non-negatively constrained convex programming method for image reconstruction. *SIAM Journal on Scientific Computing*, 25(4):1326–1343, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41045>.

Botchev:2009:NID

- [BV09] M. A. Botchev and J. G. Verwer. Numerical integration of damped Maxwell equations. *SIAM Journal on Scientific Computing*, 31(2):1322–1346, 2009. CODEN SJOCE3.

- ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BV16] **Brehier:2016:HOI**
 Charles-Edouard Bréhier and Gilles Vilmart. High order integrator for sampling the invariant distribution of a class of parabolic stochastic PDEs with additive space-time noise. *SIAM Journal on Scientific Computing*, 38(4):A2283–A2306, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BV19] **Bihlo:2019:SPF**
 Alexander Bihlo and Francis Valiquette. Symmetry-preserving finite element schemes: an introductory investigation. *SIAM Journal on Scientific Computing*, 41(5):A3300–A3325, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BV20] **Bertoli:2020:SSM**
 Guillaume Bertoli and Gilles Vilmart. Strang splitting method for semilinear parabolic problems with inhomogeneous boundary conditions: a correction based on the flow of the nonlinearity. *SIAM Journal on Scientific Computing*, 42(3):A1913–A1934, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BvG15] **Baumann:2015:NKM**
 Manuel Baumann and Martin B. van Gijzen. Nested Krylov methods for shifted linear systems. *SIAM Journal on Scientific Computing*, 37(5):S90–S112, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BvV08] **Boonen:2008:LFA**
 Tim Boonen, Jan Van Lent, and Stefan Vandewalle. Local Fourier analysis of multigrid for the curl-curl equation. *SIAM Journal on Scientific Computing*, 30(4):1730–1755, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BvW03] **Brown:2003:MIC**
 Peter N. Brown, Panayot S. Vassilevski, and Carol S. Woodward. On mesh-independent convergence of an inexact Newton-multigrid algorithm. *SIAM Journal on Scientific Computing*, 25(2):570–590, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40782>.
- [BvW09] **Borzi:2009:MMS**
 A. Borzi and G. von Winkel. Multigrid methods and sparse-grid collocation techniques

- for parabolic optimal control problems with random coefficients. *SIAM Journal on Scientific Computing*, 31(3): 2172–2192, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BW93] Richard M. Beam and Robert F. Warming. The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices. *SIAM Journal on Scientific Computing*, 14(4): 971–1006, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BW96] R. Bramley and B. Winnicka. Solving linear inequalities in a least squares sense. *SIAM Journal on Scientific Computing*, 17(1):275–286, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [BW00] Richard M. Beam and Robert F. Warming. Multiresolution analysis and supercompact multiwavelets. *SIAM Journal on Scientific Computing*, 22(4):1238–1268, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31190>.
- [BW01] Peter N. Brown and Carol S. Woodward. Preconditioning strategies for fully implicit radiation diffusion with material-energy transfer. *SIAM Journal on Scientific Computing*, 23(2):499–516, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37295>.
- [BW09] R. Bramley and B. Winnicka. Solving linear inequalities in a least squares sense. *SIAM Journal on Scientific Computing*, 17(1):275–286, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [BW11] Michele Benzi and Zhen Wang. Analysis of augmented lagrangian-based preconditioners for the steady incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 33(5): 2761–2784, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31190>.

Beam:1993:ASB**Brown:2001:PSF****Bramley:1996:SLI****Budd:2009:MMG****Beam:2000:MAS****Benzi:2011:AAL**

- siam.org/sisc/resource/1/sjoc3/v33/i5/p2761_s1
- [BW18] Zhong-Zhi Bai and Wen-Ting Wu. On greedy randomized Kaczmarz method for solving large sparse linear systems. *SIAM Journal on Scientific Computing*, 40(1): A592–A606, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bai:2018:GRK**
- [BW20] Sören Bartels and Gerd Wachsmuth. Numerical approximation of optimal convex shapes. *SIAM Journal on Scientific Computing*, 42(2):A1226–A1244, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bartels:2020:NAO**
- [BW21] Zhong-Zhi Bai and Wen-Ting Wu. On greedy randomized augmented Kaczmarz method for solving large sparse inconsistent linear systems. *SIAM Journal on Scientific Computing*, 43(6): A3892–A3911, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bai:2021:GRA**
- [BWB19] Anders Bernland, Eddie Wadbro, and Martin Berggren. Shape optimization of a compression driver phase plug. *SIAM Journal on Scientific Computing*, 41(1):B181–B204, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Burstedde:2011:PSA**
- [BWG11] Carsten Burstedde, Lucas C. Wilcox, and Omar Ghattas. **p4est**: Scalable algorithms for parallel adaptive mesh refinement on forests of octrees. *SIAM Journal on Scientific Computing*, 33(3): 1103–1133, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1103_s1. **Burstedde:2011:PSA**
- [BWS20] Martin Bourne, Joab Winkler, and Yi Su. The computation of multiple roots of a Bernstein basis polynomial. *SIAM Journal on Scientific Computing*, 42(1): A452–A476, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bourne:2020:CMR**
- [BWW15] Alex Barnett, Bowei Wu, and Shravan Veerapaneni. Spectrally accurate quadratures for evaluation of layer potentials close to the boundary for the 2D Stokes and Laplace **Barnett:2015:SAQ**
- [BWB19] Anders Bernland, Eddie Wadbro, and Martin Berggren.

- equations. *SIAM Journal on Scientific Computing*, 37(4): B519–B542, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BYK05]
- [BWZ10] Hermann Brunner, Xiaonan Wu, and Jiwei Zhang. Computational solution of blow-up problems for semilinear parabolic PDEs on unbounded domains. *SIAM Journal on Scientific Computing*, 31(6):4478–4496, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Brunner:2010:CSB**
- [BWZ21] John Burkardt, Yixuan Wu, and Yanzhi Zhang. A unified meshfree pseudospectral method for solving both classical and fractional PDEs. *SIAM Journal on Scientific Computing*, 43(2):A1389–A1411, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Burkardt:2021:UMP**
- [BY93] A. Brandt and I. Yavneh. Accelerated multigrid convergence and high-Reynolds recirculating flows. *SIAM Journal on Scientific Computing*, 14(3):607–626, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Brandt:1993:AMC**
- [BYL13] Hai Bi, Yidu Yang, and Hao Li. Local and parallel finite element discretizations for eigenvalue problems. *SIAM Journal on Scientific Computing*, 35(6): A2575–A2597, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bi:2013:LPF**
- [BYZ19] Gang Bao, Tao Yin, and Fang Zeng. Multifrequency iterative methods for the inverse medium scattering problems in elasticity. *SIAM Journal on Scientific Computing*, 41(4):B721–B745, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Bao:2019:MIM**
- [BZ93] Zhao Jun Bai and Hong Yuan Zha. A new preprocessing algorithm for the computation of the generalized **Bai:1993:NPA**
- [Banda:2005:SNL] M. K. Banda, W.-A. Yong, and A. Klar. A stability notion for lattice Boltzmann equations. *SIAM Journal on Scientific Computing*, 27(6): 2098–2111, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60621.html. **Banda:2005:SNL**

- singular value decomposition. *SIAM Journal on Scientific Computing*, 14(4):1007–1012, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BZ12]
- [BZ96] **Balder:1996:SMR**
Robert Balder and Christoph Zenger. The solution of multidimensional real Helmholtz equations on sparse grids. *SIAM Journal on Scientific Computing*, 17(3):631–646, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24703>.
- [BZ97] **Brandt:1997:MAA**
Achi Brandt and Leonid Yu. Zaslavsky. Multiscale algorithm for atmospheric data assimilation. *SIAM Journal on Scientific Computing*, 18(3):949–956, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28942>.
- [BZ10] **Bajaj:2010:FMS**
Chandrajit Bajaj and Wenqi Zhao. Fast molecular solvation energetics and forces computation. *SIAM Journal on Scientific Computing*, 31(6):4524–4552, ????. 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [BZ15]
- [BZ15] **Boom:2015:HOI**
P. D. Boom and D. W. Zingg. High-order implicit time-marching methods based on generalized summation-by-parts operators. *SIAM Journal on Scientific Computing*, 37(6):A2682–A2709, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BZ21] **Bian:2021:TOS**
Fengmiao Bian and Xiaoqun Zhang. A three-operator splitting algorithm for non-convex sparsity regularization. *SIAM Journal on Scientific Computing*, 43(4):A2809–A2839, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [BzCS11] **Beatson:2011:KBM**
R. K. Beatson, W. zu Castell, and S. J. Schrödl. Kernel-based methods for vector-

- valued data with correlated components. *SIAM Journal on Scientific Computing*, 33 (4):1975–1995, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1975_s1 [CAB04]
- binZubair:2007:MHD**
- [bZOW07] H. bin Zubair, C. W. Oosterlee, and R. Wienands. Multi-grid for high-dimensional elliptic partial differential equations on non-equidistant grids. *SIAM Journal on Scientific Computing*, 29(4):1613–1636, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CAG⁺19]
- Cambier:2016:RLR**
- [CA16] Léopold Cambier and P.-A. Absil. Robust low-rank matrix completion by Riemannian optimization. *SIAM Journal on Scientific Computing*, 38(5):S440–S460, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cabos:1994:EBD**
- [Cab94] Christian Cabos. Error bounds for dynamic responses in forced vibration problems. *SIAM Journal on Scientific Computing*, 15(1):1–15, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Cai93]
- Chinellato:2004:ICC**
- Oscar Chinellato, Erwin Achermann, and Oliver Bröker. Including covariances in calibration to obtain better measurement uncertainty estimates. *SIAM Journal on Scientific Computing*, 26(2):523–536, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42673>.
- Cleaves:2019:DBG**
- Helen L. Cleaves, Alen Alexanderian, Hayley Guy, Ralph C. Smith, and Meilin Yu. Derivative-based global sensitivity analysis for models with high-dimensional inputs and functional outputs. *SIAM Journal on Scientific Computing*, 41(6):A3524–A3551, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cai:1993:OTL**
- Xiao-Chuan Cai. An optimal two-level overlapping domain decomposition method for elliptic problems in two and three dimensions. *SIAM Journal on Scientific Computing*, 14(1):239–247, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [Cai94] **Cai:1994:MSM**
 Xiao-Chuan Cai. Multiplicative Schwarz methods for parabolic problems. *SIAM Journal on Scientific Computing*, 15(3):587–603, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [Cai95] **Cai:1995:UPI**
 Xiao-Chuan Cai. The use of pointwise interpolation in domain decomposition methods with nonnested meshes. *SIAM Journal on Scientific Computing*, 16(1):250–256, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ÇAK11] **Catalyurek:2011:HPB**
 Ümit V. Çatalyürek, Cevdet Aykanat, and Enver Kayaaslan. Hypergraph partitioning-based fill-reducing ordering for symmetric matrices. *SIAM Journal on Scientific Computing*, 33(4):1996–2023, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1996_s1.
- [Cao07] **Cao:2007:AMT**
 Weiming Cao. Anisotropic measures of third order derivatives and the quadratic interpolation error on triangular elements. *SIAM Journal on Scientific Computing*, 29(2):756–781, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Car93] **Carter:1993:NEC**
 Richard G. Carter. Numerical experience with a class of algorithms for nonlinear optimization using inexact function and gradient information. *SIAM Journal on Scientific Computing*, 14(2):368–388, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Car07] **Carley:2007:NQS**
 Michael Carley. Numerical quadratures for singular and hypersingular integrals in boundary element methods. *SIAM Journal on Scientific Computing*, 29(3):1207–1216, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Car10] **Carley:2010:MLS**
 Michael Carley. Moving least squares via orthogonal polynomials. *SIAM Journal on Scientific Computing*, 32(3):1310–1322, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Casarin:1997:TCD

[Cas97]

Mario A. Casarin. Timely communication: Diagonal edge preconditioners in p -version and spectral element methods. *SIAM Journal on Scientific Computing*, 18(2):610–620, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29232>.

[CAS11]

Chen:2011:CLS

Jie Chen, Mihai Anitescu, and Yousef Saad. Computing $f(A)b$ via least squares polynomial approximations. *SIAM Journal on Scientific Computing*, 33(1):195–222, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p195_s1.

Castillo:2002:PDG

[Cas02]

Paul Castillo. Performance of discontinuous Galerkin methods for elliptic PDEs. *SIAM Journal on Scientific Computing*, 24(2):524–547, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38833>.

[CB98]

Campos:1998:ESM

Frederico F. Campos and Nick R. C. Birkett. An efficient solver for multi-right-hand-side linear systems based on the CCCG(η) method with applications to implicit time-dependent partial differential equations. *SIAM Journal on Scientific Computing*, 19(1):126–138, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30382>.

Cash:2005:VSR

[Cas05]

J. R. Cash. A variable step Runge–Kutta–Nyström integrator for reversible systems of second order initial value problems. *SIAM Journal on Scientific Computing*, 26(3):963–978, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60172>.

[CB22]

Chen:2022:ODD

Chao Chen and George Biros. Overlapping domain decomposition preconditioner for integral equations. *SIAM Journal on Scientific Computing*, 44(6):A3617–A3644, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<https://epubs.siam.org/doi/10.1137/21M1442917>.

Chiachio:2014:ABC

- [CBCR14] Manuel Chiachio, James L. Beck, Juan Chiachio, and Guillermo Rus. Approximate Bayesian computation by subset simulation. *SIAM Journal on Scientific Computing*, 36(3):A1339–A1358, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ciaramella:2015:NMO

- [CBDW15] G. Ciaramella, A. Borzì, G. Dirr, and D. Wachsmuth. Newton methods for the optimal control of closed quantum spin systems. *SIAM Journal on Scientific Computing*, 37(1):A319–A346, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cooper:2017:NAI

- [CBF17] Fergus R. Cooper, Ruth E. Baker, and Alexander G. Fletcher. Numerical analysis of the immersed boundary method for cell-based simulation. *SIAM Journal on Scientific Computing*, 39(5):B943–B967, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Carr:2012:EBS

- [CBG12] L. E. Carr III, C. F. Borges, and F. X. Giraldo. An

element-based spectrally optimized approximate inverse preconditioner for the Euler equations. *SIAM Journal on Scientific Computing*, 34(4):B392–B420, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chaturantabut:2016:SPM

- [CBG16] S. Chaturantabut, C. Beattie, and S. Gugercin. Structure-preserving model reduction for nonlinear port-Hamiltonian systems. *SIAM Journal on Scientific Computing*, 38(5):B837–B865, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chung:2019:PUE

- [CBG⁺19] Matthias Chung, Mickaël Binois, Robert B. Gramacy, Johnathan M. Bardsley, David J. Moquin, Amanda P. Smith, and Amber M. Smith. Parameter and uncertainty estimation for dynamical systems using surrogate stochastic processes. *SIAM Journal on Scientific Computing*, 41(4):A2212–A2238, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Carlberg:2019:DDT

- [CBHB19] Kevin Carlberg, Lukas Brencher, Bernard Haasdonk, and Andrea Barth. Data-driven time parallelism via forecast-

ing. *SIAM Journal on Scientific Computing*, 41(3):B466–B496, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Claus:2018:CMS

[CBK18] Susanne Claus, Samuel Bigot, and Pierre Kerfriden. Cut-FEM method for Stefan–Signorini problems with application in pulsed laser ablation. *SIAM Journal on Scientific Computing*, 40(5):B1444–B1469, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cherrie:2002:FER

[CBN02] J. B. Cherrie, R. K. Beatson, and G. N. Newsam. Fast evaluation of radial basis functions: Methods for generalized multiquadrics in \mathbf{R}^n . *SIAM Journal on Scientific Computing*, 23(5):1549–1571, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36760>.

Christensen:2000:EPO

[CBS00] Erik Adler Christensen, Morten Brøns, and Jens Nørkær Sørensen. Evaluation of proper orthogonal decomposition based decomposition techniques applied to parameter-dependent nonturbulent flows.

SIAM Journal on Scientific Computing, 21(4):1419–1434, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33318>.

Chan:1996:TCP

[CC96] Raymond H. Chan and Wai-Ki Ching. Toeplitz-circulant preconditioners for Toeplitz systems and their applications to queueing networks with batch arrivals. *SIAM Journal on Scientific Computing*, 17(3):762–772, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26658>.

Chien:1997:MBK

[CC97] C.-S. Chien and M.-S. Chen. Multiple bifurcation in the von Kármán equations. *SIAM Journal on Scientific Computing*, 18(6):1737–1766, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27364>.

Casper:1998:CCS

Jay Casper and Mark H. Carpenter. Computational considerations for the simulation of shock-induced

- sound. *SIAM Journal on Scientific Computing*, 19(3): 813–828, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29410>. [CC08]
- [CC02] Tony F. Chan and Ke Chen. On two variants of an algebraic wavelet preconditioner. *SIAM Journal on Scientific Computing*, 24(1):260–283, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39143>. **Chan:2002:TVA**
- [CC03] Qianshun Chang and I-Liang Chern. Acceleration methods for total variation-based image denoising. *SIAM Journal on Scientific Computing*, 25(3):982–994, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41534>. **Chang:2003:AMT**
- [CC06] Andrey N. Chernikov and Nikos P. Chrisochoides. Parallel guaranteed quality Delaunay uniform mesh refinement. *SIAM Journal on Scientific Computing*, 28(5): 1907–1926, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chernikov:2006:PGQ**
- [CC09] Andrey N. Chernikov and Nikos P. Chrisochoides. Generalized two-dimensional Delaunay mesh refinement. *SIAM Journal on Scientific Computing*, 31(5):3387–3403, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chernikov:2009:GTD**
- [CC10] Raymond H. Chan and Ke Chen. A multilevel algorithm for simultaneously denoising and deblurring images. *SIAM Journal on Scientific Computing*, 32(2): 1043–1063, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chan:2010:MAS**
- [CC11] Andrey N. Chernikov and Nikos P. Chrisochoides. Multitissue tetrahedral image-to- **Chernikov:2011:MTI**

- mesh conversion with guaranteed quality and fidelity. *SIAM Journal on Scientific Computing*, 33(6):3491–3508, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3491_s1 [CC18]
- Chen:2012:POS**
- [CC12a] Rongliang Chen and Xiaochuan Cai. Parallel one-shot Lagrange–Newton–Krylov–Schwarz algorithms for shape optimization of steady incompressible flows. *SIAM Journal on Scientific Computing*, 34(5):B584–B605, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CC19]
- Chernikov:2012:GIR**
- [CC12b] Andrey N. Chernikov and Nikos P. Chrisochoides. Generalized insertion region guides for Delaunay mesh refinement. *SIAM Journal on Scientific Computing*, 34(3):A1333–A1350, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CC20]
- Cacace:2016:GNM**
- [CC16] Simone Cacace and Fabio Camilli. A generalized Newton method for homogenization of Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 38(6):A3589–A3617, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Crockatt:2018:LSI]
- Crockatt:2018:LSI**
- Michael M. Crockatt and Andrew J. Christlieb. Low-storage integral deferred correction methods for scientific computing. *SIAM Journal on Scientific Computing*, 40(5):A2883–A2904, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Choi:2019:STL]
- Choi:2019:STL**
- Youngsoo Choi and Kevin Carlberg. Space–time least-squares Petrov–Galerkin projection for nonlinear model reduction. *SIAM Journal on Scientific Computing*, 41(1):A26–A58, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Chen:2020:PRC]
- Chen:2020:PRC**
- Tyler Chen and Erin Carson. Predict-and-recompute conjugate gradient variants. *SIAM Journal on Scientific Computing*, 42(5):A3084–A3108, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Castrillon-Candas:2003:SAM]
- Castrillon-Candas:2003:SAM**
- [CCA03] Julio E. Castrillón-Candás and Kevin Amaratunga. Spa-

- tially adapted multiwavelets and sparse representation of integral equations on general geometries. *SIAM Journal on Scientific Computing*, 24(5): 1530–1566, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37123>.
- [CCA20] Youngsoo Choi, Deshawn Coombs, and Robert Anderson. SNS: a solution-based nonlinear subspace method for time-dependent model order reduction. *SIAM Journal on Scientific Computing*, 42(2):A1116–A1146, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCC17] Matthew Causley, Hana Cho, and Andrew Christlieb. Method of lines transpose: Energy gradient flows using direct operator inversion for phase-field models. *SIAM Journal on Scientific Computing*, 39(5):B968–B992, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCC18] Duan Chen, Min Hyung Cho, and Wei Cai. Accurate and efficient Nyström volume in-
- tegral equation method for electromagnetic scattering of 3-D metamaterials in layered media. *SIAM Journal on Scientific Computing*, 40(1): B259–B282, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCCZ10] Junqing Chen, Zhiming Chen, Tao Cui, and Lin-Bo Zhang. An adaptive finite element method for the eddy current model with circuit/field couplings. *SIAM Journal on Scientific Computing*, 32(2):1020–1042, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCER12] Ch. Chalons, F. Coquel, P. Engel, and Ch. Rohde. Fast relaxation solvers for hyperbolic-elliptic phase transition problems. *SIAM Journal on Scientific Computing*, 34(3):A1753–A1776, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCF14] Simone Cacace, Emiliano Cristiani, and Maurizio Falcone. Can local single-pass methods solve any stationary Hamilton–Jacobi–Bellman equation? *SIAM Journal on Scientific Com-*

puting, 36(2):A570–A587, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chollet:2023:DEI

[CCFG23]

Igor Chollet, Xavier Claeys, Pierre Fortin, and Laura Grigori. A directional equispaced interpolation-based fast multipole method for oscillatory kernels. *SIAM Journal on Scientific Computing*, 45(1):C20–C48, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1472930>.

Cacace:2012:PDP

[CCFP12]

Simone Cacace, Emiliano Cristiani, Maurizio Falcone, and Athena Picarelli. A patchy dynamic programming scheme for a class of Hamilton–Jacobi–Bellman equations. *SIAM Journal on Scientific Computing*, 34(5):A2625–A2649, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Caplan:2014:MSD

[CCG14a]

R. M. Caplan and R. Carretero-González. A modulus-squared Dirichlet boundary condition for time-dependent complex partial differential equations and its application to the nonlinear Schrödinger equation. *SIAM Journal on*

Scientific Computing, 36(1):A1–A19, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cong:2014:IST

[CCG14b]

Cui Cong, Xiao-Chuan Cai, and Karl Gustafson. Implicit space–time domain decomposition methods for stochastic parabolic partial differential equations. *SIAM Journal on Scientific Computing*, 36(1):C1–C24, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cliffe:2015:GOP

[CCH15]

K. A. Cliffe, J. Collis, and P. Houston. Goal-oriented a posteriori error estimation for the travel time functional in porous media flows. *SIAM Journal on Scientific Computing*, 37(2):B127–B152, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chang:2007:LSR

S.-L. Chang, C.-S. Chien, and B.-W. Jeng. Liapunov–Schmidt reduction and continuation for nonlinear Schrödinger equations. *SIAM Journal on Scientific Computing*, 29(2):729–755, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CCJ21] **Cakir:2021:HOF**
 Firat Cakir, Andrew Christlieb, and Yan Jiang. A high order finite difference weighted essentially NonOscillatory scheme with a kernel-based constrained transport method for ideal magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 43(3):B598–B622, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCM05] **Caceres:2005:DSB**
 María J. Cáceres, José A. Carrillo, and Armando Majorana. Deterministic simulation of the Boltzmann–Poisson system in GaAs-based semiconductors. *SIAM Journal on Scientific Computing*, 27(6):1981–2009, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60752.html.
- [CCKP21] **Carrillo:2021:HOW**
 José A. Carrillo, Manuel J. Castro, Serafim Kalliadasis, and Sergio P. Perez. High-order well-balanced finite-volume schemes for hydrodynamic equations with nonlocal free energy. *SIAM Journal on Scientific Computing*, 43(2):A828–A858, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCM08] **Chalons:2008:WBT**
 Christophe Chalons, Frédéric Coquel, and Claude Marmignon. Well-balanced time implicit formulation of relaxation schemes for the Euler equations. *SIAM Journal on Scientific Computing*, 30(1):394–415, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCL+20] **Chartier:2020:UAM**
 Philippe Chartier, Nicolas Crouseilles, Mohammed Lemou, Florian Méhats, and Xiaofei Zhao. Uniformly accurate methods for three dimensional Vlasov equations under strong magnetic field with varying direction. *SIAM Journal on Scientific Computing*, 42(2):B520–B547, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCO11] **Chung:2011:DOS**
 Julianne Chung, Matthias Chung, and Dianne P. O’Leary. Designing optimal spectral filters for inverse problems. *SIAM Journal on Scientific Computing*, 33(6):3132–3152, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-33/art_161712.html.

- siam.org/sisc/resource/1/sjoc3/v33/i6/p3132_s1
- [CCPS20] Daniela Calvetti, Anna Cosmo, Simona Perotto, and Erkki Somersalo. Bayesian mesh adaptation for estimating distributed parameters. *SIAM Journal on Scientific Computing*, 42(6):A3878–A3906, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Calvetti:2020:BMA**
- [CCQ16] Jingya Chang, Yannan Chen, and Liqun Qi. Computing eigenvalues of large scale sparse tensors arising from a hypergraph. *SIAM Journal on Scientific Computing*, 38(6):A3618–A3643, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chang:2016:CEL**
- [CCRT21] David Chappell, Jonathan J. Crofts, Martin Richter, and Gregor Tanner. A direction preserving discretization for computing phase-space densities. *SIAM Journal on Scientific Computing*, 43(4):B884–B906, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chappell:2021:DPD**
- [CCS97] Tony F. Chan, P. Ciarlet, Jr., and W. K. Szeto. On the optimality of the median cut spectral bisection graph partitioning method. *SIAM Journal on Scientific Computing*, 18(3):943–948, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26264>. **Chan:1997:OMC**
- [CCS98] Raymond H. Chan, Qian-Shun Chang, and Hai-Wei Sun. Multigrid method for ill-conditioned symmetric Toeplitz systems. *SIAM Journal on Scientific Computing*, 19(2):516–529, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29383>. **Chan:1998:MMI**
- [CCS+19] Xiaohao Cai, Raymond Chan, Carola-Bibiane Schönlieb, Gabriele Steidl, and Tiejong Zeng. Linkage between piecewise constant Mumford–Shah model and Rudin–Osher–Fatemi model and its virtue in image segmentation. *SIAM Journal on Scientific Computing*, 41(6):B1310–B1340, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Cai:2019:LBP**
- [CCSS03] Raymond H. Chan, Tony F. **Chan:2003:WAH**

- Chan, Lixin Shen, and Zuowei Shen. Wavelet algorithms for high-resolution image reconstruction. *SIAM Journal on Scientific Computing*, 24(4):1408–1432, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38312>. [CCY23]
- Cai:2003:SGD**
- Hanqin Cai, Jian-Feng Cai, and Juntao You. Structured gradient descent for fast robust low-rank Hankel matrix completion. *SIAM Journal on Scientific Computing*, 45(3):A1172–A1198, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1491009>.
- Chiavassa:2001:PVM**
- Guillaume Chiavassa and Rosa Donat. Point value multiscale algorithms for 2D compressible flows. *SIAM Journal on Scientific Computing*, 23(3):805–823, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36398>.
- Chen:2002:EAF**
- Zhiming Chen and Shibin Dai. On the efficiency of adaptive finite element methods for elliptic problems with discontinuous coefficients. *SIAM Journal on Scientific Computing*, 24(2):443–462, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CCSS08] Jian-Feng Cai, Raymond Chan, Lixin Shen, and Zuowei Shen. Restoration of chopped and noded images by framelets. *SIAM Journal on Scientific Computing*, 30(3):1205–1227, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CD01]
- Cai:2008:RCN**
- Chan:1998:PSP**
- [CCSY98] T. F. Chan, E. Chow, Y. Saad, and M. C. Yeung. Preserving symmetry in preconditioned Krylov subspace methods. *SIAM Journal on Scientific Computing*, 20(2):568–581, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31155>. [CD02]
- Clawson:2014:CDR**
- [CCV14] Z. Clawson, A. Chacon, and A. Vladimirsky. Causal domain restriction for eikonal equations. *SIAM Journal on Scientific Computing*, 36(5):A2478–A2505, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38371>.

Crofts:2006:EDP

[CD06]

Jonathan J. Crofts and Ruslan L. Davidchack. Efficient detection of periodic orbits in chaotic systems by stabilizing transformations. *SIAM Journal on Scientific Computing*, 28(4):1275–1288, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CD19]

Cecka:2013:FBF

[CD13]

Cris Cecka and Eric Darve. Fourier-based Fast Multipole Method for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 35(1):A79–A103, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CD20]

Cavoretto:2015:TIA

[CD15a]

Roberto Cavoretto and Alessandra De Rossi. A trivariate interpolation algorithm using a cube-partition searching procedure. *SIAM Journal on Scientific Computing*, 37(4):A1891–A1908, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CDB13]

Chen:2015:HOA

[CD15b]

Minghua Chen and Weihua Deng. High order al-

gorithms for the fractional substantial diffusion equation with truncated Lévy flights. *SIAM Journal on Scientific Computing*, 37(2):A890–A917, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cambier:2019:FLR

Léopold Cambier and Eric Darve. Fast low-rank kernel matrix factorization using skeletonized interpolation. *SIAM Journal on Scientific Computing*, 41(3):A1652–A1680, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cheng:2020:EIM

Hanz Martin Cheng and Jérôme Droniou. An efficient implementation of mass conserving characteristic-based schemes in two and three dimensions. *SIAM Journal on Scientific Computing*, 42(2):A1071–A1096, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chueh:2013:AOS

Chih-Che Chueh, Ned Djilali, and Wolfgang Bangerth. An h -adaptive operator splitting method for two-phase flow in 3D heterogeneous porous media. *SIAM Journal on Scientific Computing*, 35(1):B149–

- B175, ???? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDBH16] **Cai:2016:RPF** Yuantao Cai, Marco Donatelli, Davide Bianchi, and Ting-Zhu Huang. Regularization preconditioners for frame-based image deblurring with reduced boundary artifacts. *SIAM Journal on Scientific Computing*, 38(1): B164–B189, ???? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDF18b] **Chave:2018:HHO** Florent Chave, Daniele A. Di Pietro, and Luca Formaggia. A hybrid high-order method for Darcy flows in fractured porous media. *SIAM Journal on Scientific Computing*, 40(2):A1063–A1094, ???? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDC19] **Chan:2019:EES** Jesse Chan, David C. Del Rey Fernández, and Mark H. Carpenter. Efficient entropy stable Gauss collocation methods. *SIAM Journal on Scientific Computing*, 41(5): A2938–A2966, ???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDF18a] **Chalons:2018:SAN** C. Chalons, R. Duvigneau, and C. Fiorini. Sensitivity analysis and numerical diffusion effects for hyperbolic PDE systems with discontinuous solutions. the case of barotropic Euler equations in Lagrangian coordinates. *SIAM Journal on Scientific Computing*, 40(6): A3955–A3981, ???? 2018.
- [CDFQ11] **Crosetto:2011:PAF** Paolo Crosetto, Simone Deparis, Gilles Fourestey, and Alfio Quarteroni. Parallel algorithms for fluid-structure interaction problems in haemodynamics. *SIAM Journal on Scientific Computing*, 33(4):1598–1622, ???? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1598_s1
- [CDG03] **Carpentieri:2003:CST** B. Carpentieri, I. S. Duff, and L. Giraud. A class of spectral two-level preconditioners. *SIAM Journal on Scientific Computing*, 25(2):749–765, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/40859.

Cockburn:2009:HDG

- [CDG⁺09] Bernardo Cockburn, Bo Dong, Johnny Guzmán, Marco Restelli, and Riccardo Sacco. A hybridizable discontinuous Galerkin method for steady-state convection-diffusion-reaction problems. *SIAM Journal on Scientific Computing*, 31(5):3827–3846, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CDGT01]

Cangiani:2017:VST

- [CDG17] Andrea Cangiani, Zhaonan Dong, and Emmanuil H. Georgoulis. *hp*-version space-time discontinuous Galerkin methods for parabolic problems on prismatic meshes. *SIAM Journal on Scientific Computing*, 39(4):A1251–A1279, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CDH97]

Carpentieri:2005:CFM

- [CDGS05] B. Carpentieri, I. S. Duff, L. Giraud, and G. Sylvand. Combining fast multipole techniques and an approximate inverse preconditioner for large electromagnetism calculations. *SIAM Journal on Scientific Computing*, 27(3):774–792, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60391>.

Costa:2001:TMM

B. Costa, L. Dettori, D. Gottlieb, and R. Temam. Time marching multilevel techniques for evolutionary dissipative problems. *SIAM Journal on Scientific Computing*, 23(1):46–65, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33996>.

Chan:1997:NSB

Raymond H. Chan, Thomas K. DeLillo, and Mark A. Horn. The numerical solution of the biharmonic equation by conformal mapping. *SIAM Journal on Scientific Computing*, 18(6):1571–1582, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29271>.

Chan:1998:SCE

Raymond H. Chan, Thomas K. DeLillo, and Mark A. Horn. Superlinear convergence estimates for a conjugate gradient method for the biharmonic equation. *SIAM Journal on Scientific Computing*, 19(1):139–147, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30357>.
- [CDK19] **Cervený:2019:NMR**
 Jakub Cervený, Veselin Dobrev, and Tzanio Kolev. Nonconforming mesh refinement for high-order finite elements. *SIAM Journal on Scientific Computing*, 41(4):C367–C392, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDK21] **Cai:2021:VCL**
 Zhenning Cai, Xiaoyu Dong, and Yang Kuang. On the validity of complex Langevin method for path integral computations. *SIAM Journal on Scientific Computing*, 43(1):A685–A719, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDKL22] **Cances:2022:PEB**
 Eric Cancès, Geneviève Dusson, Gaspard Kemlin, and Antoine Levitt. Practical error bounds for properties in plane-wave electronic structure calculations. *SIAM Journal on Scientific Computing*, 44(5):B1312–B1340, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1456224>.
- [CDM+13] **Cheng:2013:BLS**
 Li-Tien Cheng, Bin Dong, Chunhua Men, Xun Jia, and Steve Jiang. Binary level-set shape optimization model and algorithm for volumetric modulated arc therapy in radiotherapy treatment. *SIAM Journal on Scientific Computing*, 35(6):B1321–B1340, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDN16] **Crestetto:2016:HMA**
 A. Crestetto, F. Deluzet, and C. Negulescu. A hybrid method for anisotropic elliptic problems based on the coupling of an asymptotic-preserving method with the asymptotic limit model. *SIAM Journal on Scientific Computing*, 38(3):A1821–A1847, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CDPC13] **Collier:2013:CCP**
 Nathan Collier, Lisandro Dalcin, David Pardo, and V. M. Calo. The cost of continuity: Performance of iterative solvers on isogeometric finite elements. *SIAM Journal on Scientific Computing*, 35(2):A767–A784, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- Chen:1998:ADB**
- [CDS98] Scott Shaobing Chen, David L. Donoho, and Michael A. Saunders. Atomic decomposition by basis pursuit. *SIAM Journal on Scientific Computing*, 20(1):33–61, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30401>.
- Carr:2021:PPL**
- [CdSG21] Arielle Carr, Eric de Sturler, and Serkan Gugercin. Preconditioning parametrized linear systems. *SIAM Journal on Scientific Computing*, 43(3):A2242–A2267, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Constantine:2014:ASM**
- [CDW14a] Paul G. Constantine, Eric Dow, and Qiqi Wang. Active subspace methods in theory and practice: Applications to kriging surfaces. *SIAM Journal on Scientific Computing*, 36(4):A1500–A1524, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Constantine:2014:EAS**
- [CDW14b] Paul G. Constantine, Eric Dow, and Qiqi Wang. Erratum: Active subspace methods in theory and practice: Applications to kriging surfaces. *SIAM Journal on Scientific Computing*, 36(6):A3030–A3031, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Candes:2007:FCF**
- [CDY07a] Emmanuel Candès, Laurent Demanet, and Lexing Ying. Fast computation of Fourier integral operators. *SIAM Journal on Scientific Computing*, 29(6):2464–2493, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chu:2007:SQI**
- [CDY07b] Moody T. Chu, Nicoletta Del Buono, and Bo Yu. Structured quadratic inverse eigenvalue problem, I. Serially linked systems. *SIAM Journal on Scientific Computing*, 29(6):2668–2685, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cui:2022:CMS**
- [CDZ22] Jianbo Cui, Luca Dieci, and Haomin Zhou. A continuation multiple shooting method for Wasserstein geodesic equation. *SIAM Journal on Scientific Computing*, 44(5):A2918–A2943, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<https://epubs.siam.org/doi/10.1137/21M142160X>.

Cotter:2016:EAD

[CE16]

Simon L. Cotter and Radek Erban. Error analysis of diffusion approximation methods for multiscale systems in reaction kinetics. *SIAM Journal on Scientific Computing*, 38(1):B144–B163, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cucuringu:2017:ACA

[CE17]

Mihai Cucuringu and Radek Erban. ADM–CLE approach for detecting slow variables in continuous time Markov chains and dynamic data. *SIAM Journal on Scientific Computing*, 39(1):B76–B101, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Censor:2008:DRO

[CEHN08]

Yair Censor, Tommy Elfving, Gabor T. Herman, and Touraj Nikazad. On diagonally relaxed orthogonal projection methods. *SIAM Journal on Scientific Computing*, 30(1):473–504, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Carey:2010:BAT

[CEJ⁺10]

V. Carey, D. Estep, A. Johansson, M. Larson, and

S. Tavener. Blockwise adaptivity for time dependent problems based on coarse scale adjoint solutions. *SIAM Journal on Scientific Computing*, 32(4):2121–2145, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chung:2011:WSR

[CEO11]

Julianne Chung, Glenn Easley, and Dianne P. O’Leary. Windowed spectral regularization of inverse problems. *SIAM Journal on Scientific Computing*, 33(6):3175–3200, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3175_s1.

Celledoni:2018:DNS

[CEOR18]

Elena Celledoni, Sølve Eidesnes, Brynjulf Owren, and Torbjørn Ringholm. Dissipative numerical schemes on Riemannian manifolds with applications to gradient flows. *SIAM Journal on Scientific Computing*, 40(6):A3789–A3806, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chouly:2020:HHO

Franz Chouly, Alexandre Ern, and Nicolas Pignet. A hybrid high-order discretization combined with

- Nitsche's method for contact and Tresca friction in small strain elasticity. *SIAM Journal on Scientific Computing*, 42(4):A2300–A2324, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CF97] Jianjun Cui and Willi Freeden. Equidistribution on the sphere. *SIAM Journal on Scientific Computing*, 18(2):595–609, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28134>.
- [CF00] Carsten Carstensen and Stefan A. Funken. Fully reliable localized error control in the FEM. *SIAM Journal on Scientific Computing*, 21(4):1465–1484, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32748>.
- [CF05] Gary Cohen and Sandrine Fauqueux. Mixed spectral finite elements for the linear elasticity system in unbounded domains. *SIAM Journal on Scientific Computing*, 26(3):864–884, May 2005. CO-
- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40745>.
- [CF07] Zhuliang Chen and Peter A. Forsyth. A semi-Lagrangian approach for natural gas storage valuation and optimal operation. *SIAM Journal on Scientific Computing*, 30(1):339–368, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CF23] T. Chaumont-Frelet. Asymptotically constant-free and polynomial-degree-robust a posteriori estimates for space discretizations of the wave equation. *SIAM Journal on Scientific Computing*, 45(4):A1591–A1620, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1485619>.
- [CFGLT22] T. Chaumont-Frelet, M. J. Grote, S. Lanteri, and J. H. Tang. A controllability method for Maxwell's equations. *SIAM Journal on Scientific Computing*, 44(6):A3700–A3727, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

(electronic). URL <https://epubs.siam.org/doi/10.1137/21M1424445>.

Caiazzo:2011:PSF

[CFGM11]

Alfonso Caiazzo, Miguel A. Fernández, Jean-Frédéric Gerbeau, and Vincent Martin. Projection schemes for fluid flows through a porous interface. *SIAM Journal on Scientific Computing*, 33(2):541–564, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p541_s1.

Cleary:2000:RSA

[CFH⁺00]

Andrew J. Cleary, Robert D. Falgout, Van Emden Henson, Jim E. Jones, Thomas A. Manteuffel, Stephen F. McCormick, Gerald N. Miranda, and John W. Ruge. Robustness and scalability of algebraic multigrid. *SIAM Journal on Scientific Computing*, 21(5):1886–1908, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33940>.

Chartier:2003:SA

[CFH⁺03]

T. Chartier, R. D. Falgout, V. E. Henson, J. Jones, T. Manteuffel, S. McCormick, J. Ruge, and P. S. Vassilevski. Spectral AMGe

(ρ AMGe). *SIAM Journal on Scientific Computing*, 25(1):1–26, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39892>.

Colbrook:2019:HAN

[CFH19]

Matthew J. Colbrook, Thanasis S. Fokas, and Parham Hashemzadeh. A hybrid analytical-numerical technique for elliptic PDEs. *SIAM Journal on Scientific Computing*, 41(2):A1066–A1090, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Christlieb:2018:HOF

[CFJT18]

Andrew J. Christlieb, Xiao Feng, Yan Jiang, and Qi Tang. A high-order finite difference WENO scheme for ideal magnetohydrodynamics on curvilinear meshes. *SIAM Journal on Scientific Computing*, 40(4):A2631–A2666, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chang:2018:CSF

[CFKM18]

Justin Chang, Maurice S. Fabien, Matthew G. Knepley, and Richard T. Mills. Comparative study of finite element methods using the time-accuracy-Size(TAS) spectrum analysis. *SIAM*

Journal on Scientific Computing, 40(6):C779–C802, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Coleman:1996:STF

[CFM96]

Bernard D. Coleman, Richard S. Falk, and Maher Moakher. Space-time finite element methods for surface diffusion with applications to the theory of the stability of cylinders. *SIAM Journal on Scientific Computing*, 17(6):1434–1448, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27458>.

Czyzyk:1998:UMP

[CFM98]

Joseph Czyzyk, Robert Fourer, and Sanjay Mehrotra. Using a massively parallel processor to solve large sparse linear programs by an interior-point method. *SIAM Journal on Scientific Computing*, 19(2):553–565, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27208>.

Carlini:2005:WEN

[CFR05]

E. Carlini, R. Ferretti, and G. Russo. A weighted essentially nonoscillatory, large time-step scheme for Hamilton–Jacobi equations.

SIAM Journal on Scientific Computing, 27(3):1071–1091, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60878.html.

Celledoni:2008:ECF

[CFSZ08]

E. Celledoni, F. Fassò, N. Säfström, and A. Zanna. The exact computation of the free rigid body motion and its use in splitting methods. *SIAM Journal on Scientific Computing*, 30(4):2084–2112, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2018:EFM

[CFY18]

Zhenning Cai, Yuwei Fan, and Lexing Ying. An entropic Fourier method for the Boltzmann equation. *SIAM Journal on Scientific Computing*, 40(5):A2858–A2882, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chu:1993:PAS

[CG93]

Eleanor Chu and Alan George. Parallel algorithms and subcube embedding on a hypercube. *SIAM Journal on Scientific Computing*, 14(1):81–94, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CG95] **Campbell:1995:SGD**
 Stephen L. Campbell and E. Griepentrog. Solvability of general differential algebraic equations. *SIAM Journal on Scientific Computing*, 16(2): 257–270, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CG96] **Cockburn:1996:MNS**
 Bernardo Cockburn and Hui-gang Gau. A model numerical scheme for the propagation of phase transitions in solids. *SIAM Journal on Scientific Computing*, 17(5): 1092–1121, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26688>.
- [CG99] **Cao:1999:PEI**
 Weiming Cao and Benqi Guo. Preconditioning on element interfaces for the p -version finite element method and spectral element method. *SIAM Journal on Scientific Computing*, 21(2):522–551, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30695>.
- [CG07] **Cohen:2007:MHO**
 G. Cohen and P. Grob. Mixed higher order spectral finite elements for Reissner–Mindlin equations. *SIAM Journal on Scientific Computing*, 29(3): 986–1005, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CG10] **Chu:2010:NFO**
 Delin Chu and Siong Thye Goh. A new and fast orthogonal linear discriminant analysis on undersampled problems. *SIAM Journal on Scientific Computing*, 32(4): 2274–2297, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CG17] **Cocquet:2017:HLS**
 Pierre-Henri Cocquet and Martin J. Gander. How large a shift is needed in the shifted Helmholtz preconditioner for its effective inversion by multigrid? *SIAM Journal on Scientific Computing*, 39(2): A438–A478, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CG18] **Caboussat:2018:ADM**
 Alexandre Caboussat and Roland Glowinski. An alternating direction method of multipliers for the numerical solution of a fully nonlinear partial differential equation involving the Jacobian determinant. *SIAM Journal on Scientific Computing*, 40(1):

- A52–A80, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CGC21]
- Chung:2019:FKM**
- [CG19] Julianne Chung and Silvia Gazzola. Flexible Krylov methods for ℓ_p regularization. *SIAM Journal on Scientific Computing*, 41(5):S149–S171, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chen:2021:SVR**
- [CG21] Peng Chen and Omar Ghattas. Stein variational reduced basis Bayesian inversion. *SIAM Journal on Scientific Computing*, 43(2):A1163–A1193, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carpenter:1995:TAR**
- [CGAD95] Mark H. Carpenter, David Gottlieb, Saul Abarbanel, and Wai Sun Don. Theoretical accuracy of Runge–Kutta time discretizations for the initial boundary value problem: a study of the boundary error. *SIAM Journal on Scientific Computing*, 16(6):1241–1252, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Caprace:2021:FFB**
- Denis-Gabriel Caprace, Thomas Gillis, and Philippe Chate-
lain. FLUPS: a Fourier-based library of unbounded Poisson solvers. *SIAM Journal on Scientific Computing*, 43(1):C31–C60, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Crombecq:2011:NHS**
- [CGDD11] Karel Crombecq, Dirk Gorissen, Dirk Deschrijver, and Tom Dhaene. A novel hybrid sequential design strategy for global surrogate modeling of computer experiments. *SIAM Journal on Scientific Computing*, 33(4):1948–1974, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1948_s1
- Croci:2021:MQM**
- [CGF21] Matteo Croci, Michael Giles, and Patrick E. Farrell. Multilevel quasi Monte Carlo methods for elliptic PDEs with random field coefficients via fast white noise sampling. *SIAM Journal on Scientific Computing*, 43(4):A2840–A2868, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CGG07] **Carpentieri:2007:AMT**
 B. Carpentieri, L. Giraud, and S. Gratton. Additive and multiplicative two-level spectral preconditioning for general linear systems. *SIAM Journal on Scientific Computing*, 29(4):1593–1612, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGG⁺14] **Chanaud:2014:PFG**
 M. Chanaud, L. Giraud, D. Goudin, J. J. Pesqué, and J. Roman. A parallel full geometric multigrid solver for time harmonic Maxwell problems. *SIAM Journal on Scientific Computing*, 36(2):C119–C138, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGGG15] **Cabrales:2015:TSF**
 R. C. Cabrales, F. Guillén-González, and J. V. Gutiérrez-Santacreu. A time-splitting finite-element stable approximation for the Ericksen–Leslie equations. *SIAM Journal on Scientific Computing*, 37(2):B261–B282, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGGP19] **Caboussat:2019:NAO**
 Alexandre Caboussat, Roland Glowinski, Dimitrios Gouzoulidis, and Marco Picasso. Numerical approximation of orthogonal maps. *SIAM Journal on Scientific Computing*, 41(6):B1341–B1367, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGHT14] **Constantine:2014:MRM**
 Paul G. Constantine, David F. Gleich, Yangyang Hou, and Jeremy Templeton. Model reduction with MapReduce-enabled tall and skinny singular value decomposition. *SIAM Journal on Scientific Computing*, 36(5):S166–S191, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGI11] **Constantine:2011:FSG**
 Paul G. Constantine, David F. Gleich, and Gianluca Iaccarino. A factorization of the spectral Galerkin system for parameterized matrix equations: Derivation and applications. *SIAM Journal on Scientific Computing*, 33(5):2995–3009, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2995_s1.
- [CGK⁺98] **Cai:1998:PNK**
 Xiao-Chuan Cai, William D. Gropp, David E. Keyes, Robin G. Melvin, and David P. Young. Parallel Newton–Krylov–Schwarz

- algorithms for the transonic full potential equation. *SIAM Journal on Scientific Computing*, 19(1):246–265, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30404>.
- [CGK13] **Chalons:2013:LTS** [CGL⁺12] Christophe Chalons, Mathieu Girardin, and Samuel Kokh. Large time step and asymptotic preserving numerical schemes for the gas dynamics equations with source terms. *SIAM Journal on Scientific Computing*, 35(6):A2874–A2902, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGKM16] **Cangiani:2016:ABD** [CGL⁺13] Andrea Cangiani, Emmanuil H. Georgoulis, Irene Kyza, and Stephen Metcalfe. Adaptivity and blow-up detection for nonlinear evolution problems. *SIAM Journal on Scientific Computing*, 38(6):A3833–A3856, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGL01] **Carvalho:2001:ATL** L. M. Carvalho, L. Giraud, and P. Le Tallec. Algebraic two-level preconditioners for the Schur complement method. *SIAM Journal on Scientific Computing*, 22(6):1987–2005, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34080>.
- Calandra:2012:FVB** Henri Calandra, Serge Gratton, Julien Langou, Xavier Pinel, and Xavier Vasseur. Flexible variants of block restarted GMRES methods with application to geophysics. *SIAM Journal on Scientific Computing*, 34(2):A714–A736, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Calandra:2013:MBF** Henri Calandra, Serge Gratton, Rafael Lago, Xavier Vasseur, and Luiz Mariano Carvalho. A modified block flexible GMRES method with deflation at each iteration for the solution of non-Hermitian linear systems with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 35(5):S345–S367, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CGL99] **Chan:1999:NPD** Tony F. Chan, Gene H. Golub, and Pep Mulet. A nonlinear primal-dual

method for total variation-based image restoration. *SIAM Journal on Scientific Computing*, 20(6):1964–1977, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29976>.

Chien:2000:MJK

[CGM00a]

C.-S. Chien, S.-Y. Gong, and Z. Mei. Mode jumping in the Von Kármán equations. *SIAM Journal on Scientific Computing*, 22(4):1354–1385, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30732>.

Colton:2000:RSM

[CGM00b]

David Colton, Klaus Giebermann, and Peter Monk. A regularized sampling method for solving three-dimensional inverse scattering problems. *SIAM Journal on Scientific Computing*, 21(6):2316–2330, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34015>.

Chang:2021:ODD

[CGM⁺21]

Huibin Chang, Roland Glowinski, Stefano Marchesini, Xue-Cheng Tai, Yang Wang, and

Tieyong Zeng. Overlapping domain decomposition methods for ptychographic imaging. *SIAM Journal on Scientific Computing*, 43(3):B570–B597, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cheng:2005:CLR

[CGMR05]

H. Cheng, Z. Gimbutas, P. G. Martinsson, and V. Rokhlin. On the compression of low rank matrices. *SIAM Journal on Scientific Computing*, 26(4):1389–1404, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60267>.

Cuyt:2005:MII

[CGMV05]

Annie Cuyt, Gene Golub, Peyman Milanfar, and Brigitte Verdonk. Multidimensional integral inversion, with applications in shape reconstruction. *SIAM Journal on Scientific Computing*, 27(3):1058–1070, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60170.html.

Cao:2022:GCM

[CGO22]

Lianghao Cao, Omar Ghattas, and J. Tinsley Oden. A globally convergent modified Newton method for the direct

- minimization of the Ohta–Kawasaki energy with application to the directed self-assembly of diblock copolymers. *SIAM Journal on Scientific Computing*, 44(1):B51–B79, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1378119>. [CGP22]
- Cai:1993:MIM**
- [CGP93] Zhi Qiang Cai, Charles I. Goldstein, and Joseph E. Pasciak. Multilevel iteration for mixed finite element systems with penalty. *SIAM Journal on Scientific Computing*, 14(5):1072–1088, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carstensen:2012:NEA**
- [CGP12] Carsten Carstensen, Joscha Gedicke, and Eun-Jae Park. Numerical experiments for the Arnold–Winther mixed finite elements for the Stokes problem. *SIAM Journal on Scientific Computing*, 34(4):A2267–A2287, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CGQ10]
- Canuto:2010:FEP**
- Claudio Canuto, Paola Gervasio, and Alfio Quarteroni. Finite-element preconditioning of G-NI spectral methods. *SIAM Journal on Scientific Computing*, 31(6):4422–4451, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carraro:2014:IMS**
- [CGR14] T. Carraro, M. Geiger, and R. Rannacher. Indirect multiple shooting for nonlinear parabolic optimal control problems with control constraints. *SIAM Journal on Scientific Computing*, 36(2):
- methods for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 41(2):A1121–A1147, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Clayton:2022:IDP**
- Bennett Clayton, Jean-Luc Guermond, and Bojan Popov. Invariant domain-preserving approximations for the Euler equations with tabulated equation of state. *SIAM Journal on Scientific Computing*, 44(1):A444–A470, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1414097>.
- Congreve:2019:RAD**
- [CGP19] Scott Congreve, Joscha Gedicke, and Ilaria Perugia. Robust adaptive hp discontinuous Galerkin finite element

A452–A481, ????. 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chan:1994:QMR

[CGS⁺94]

T. F. Chan, E. Gallopoulos, V. Simoncini, T. Szeto, and C. H. Tong. A quasi-minimal residual variant of the Bi-CGSTAB algorithm for non-symmetric systems. *SIAM Journal on Scientific Computing*, 15(2):338–347, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

[CGV18]

Casado:2002:IAF

[CGS02]

L. G. Casado, I. García, and Ya. D. Sergeyev. Interval algorithms for finding the minimal root in a set of multiextremal one-dimensional nondifferentiable functions. *SIAM Journal on Scientific Computing*, 24(2):359–376, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35759>.

[CGX21]

Chaouqui:2020:CAN

[CGSR20]

Faycal Chaouqui, Martin J. Gander, and Kévin Santugini-Repiquet. A continuous analysis of Neumann–Neumann methods: Scalability and new

coarse spaces. *SIAM Journal on Scientific Computing*, 42(6):A3785–A3811, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chalons:2018:HON

Christophe Chalons, Paola Goatin, and Luis M. Villada. High-order numerical schemes for one-dimensional nonlocal conservation laws. *SIAM Journal on Scientific Computing*, 40(1):A288–A305, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cocquet:2021:CFD

Pierre-Henri Cocquet, Martin J. Gander, and Xueshuang Xiang. Closed form dispersion corrections including a real shifted WaveNumber for finite difference discretizations of 2D constant coefficient Helmholtz problems. *SIAM Journal on Scientific Computing*, 43(1):A278–A308, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chan:1999:BTM

[CGZ99]

Tony F. Chan, Susie Go, and Jun Zou. Boundary treatments for multi-level methods on unstructured meshes. *SIAM Journal on Scientific Computing*,

- 21(1):46–66, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31005>. [CH08b]
- Chesshire:1994:SCI**
- [CH94] G. Chesshire and W. D. Henshaw. A scheme for conservative interpolation on overlapping grids. *SIAM Journal on Scientific Computing*, 15(4):819–845, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CH09a]
- Chang:2002:EAM**
- [CH02] Qianshun Chang and Zhao-hui Huang. Efficient algebraic multigrid algorithms and their convergence. *SIAM Journal on Scientific Computing*, 24(2):597–618, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38985>. [CH09b]
- Chalmers:2008:ASJ**
- [CH08a] Graeme D. Chalmers and Desmond J. Higham. Asymptotic stability of a jump-diffusion equation and its numerical approximation. *SIAM Journal on Scientific Computing*, 31(2):1141–1155, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CH11]
- Christiansen:2008:DMU**
- Martin Christiansen and Martin Hanke. Deblurring methods using antireflective boundary conditions. *SIAM Journal on Scientific Computing*, 30(2):855–872, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Calhoun:2009:FVM**
- Donna A. Calhoun and Christiane Helzel. A finite volume method for solving parabolic equations on logically Cartesian curved surface meshes. *SIAM Journal on Scientific Computing*, 31(6):4066–4099, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Clason:2009:FAN**
- Christian Clason and Peter Heppinger. A forward approach to numerical data assimilation. *SIAM Journal on Scientific Computing*, 31(4):3090–3115, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Coudiere:2011:DDF**
- Yves Coudière and Florence Hubert. A 3D discrete duality finite volume method for nonlinear elliptic equations. *SIAM Journal on Scientific Computing*, 33(4):1739–1764, ??? 2011. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1739_s1 [Cha18]
- [CH17] Erin Carson and Nicholas J. Higham. A new analysis of iterative refinement and its application to accurate solution of ill-conditioned sparse linear systems. *SIAM Journal on Scientific Computing*, 39(6):A2834–A2856, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CH18] Erin Carson and Nicholas J. Higham. Accelerating the solution of linear systems by iterative refinement in three precisions. *SIAM Journal on Scientific Computing*, 40(2):A817–A847, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Cha07] Christophe Chalons. Numerical approximation of a macroscopic model of pedestrian flows. *SIAM Journal on Scientific Computing*, 29(2):539–555, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHAMR06] M. Calvo, D. Hernández-Abreu, J. I. Montijano, and L. Rández. On the preservation of invariants by explicit Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 28(3):868–885, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61979.html.
- [Che94] Ke Chen. Error equidistribution and mesh adaptation. *SIAM Journal on Scientific Computing*, 15(4):798–818, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Che98] Ke Chen. On a class of preconditioning methods for dense linear systems from boundary elements. *SIAM Journal on*
- Chaudhry:2018:PAE**
Jehanzeb H. Chaudhry. A posteriori analysis and efficient refinement strategies for the Poisson–Boltzmann equation. *SIAM Journal on Scientific Computing*, 40(4):A2519–A2542, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carson:2017:NAI**
- Carson:2018:ASL**
- Calvo:2006:PIE**
- Chen:1994:EEM**
- Chen:1998:CPM**

- Scientific Computing*, 20(2): 684–698, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30405>. [CHH01]
- Chen:2005:PSL**
- [Che05] Qian-Yong Chen. Partitions of a simplex leading to accurate spectral (finite) volume reconstruction. *SIAM Journal on Scientific Computing*, 27(4):1458–1470, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60138.html. [CHH10]
- Chen:2013:UDL**
- [Che13] Jie Chen. On the use of discrete Laplace operator for preconditioning kernel matrices. *SIAM Journal on Scientific Computing*, 35(2):A577–A602, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chen:2016:HAS**
- [Che16] Jie Chen. How accurately should I compute implicit matrix–vector products when applying the Hutchinson trace estimator? *SIAM Journal on Scientific Computing*, 38(6):A3515–A3539, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Coorevits:2001:PEC**
- Patrice Coorevits, Patrick Hild, and Mohammed Hjjaj. A posteriori error control of finite element approximations for Coulomb’s frictional contact. *SIAM Journal on Scientific Computing*, 23(3):976–999, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37546>.
- Cliffe:2010:ADG**
- [CHH10] K. Andrew Cliffe, Edward J. C. Hall, and Paul Houston. Adaptive discontinuous Galerkin methods for eigenvalue problems arising in incompressible fluid flows. *SIAM Journal on Scientific Computing*, 31(6):4607–4632, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Candiani:2019:CFA**
- [CHH19] Valentina Candiani, Antti Hannukainen, and Nuutti Hyvönen. Computational framework for applying electrical impedance tomography to head imaging. *SIAM Journal on Scientific Computing*, 41(5):B1034–B1060, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CHJ16] **Choi:2016:VGA**
 Woohyuk Choi, Sumin Hong, and Won-Ki Jeong. Vispark: GPU-accelerated distributed visual computing using Spark. *SIAM Journal on Scientific Computing*, 38(5): S700–S719, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHKM13] **Chainais-Hillairet:2013:SDD**
 C. Chainais-Hillairet, S. Krell, and A. Mouton. Study of discrete duality finite volume schemes for the Peaceman Model. *SIAM Journal on Scientific Computing*, 35(6): A2928–A2952, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHKsL20] **Cuyt:2020:SME**
 Annie Cuyt, Yuan Hou, Ferre Knaepkens, and Wen shin Lee. Sparse multidimensional exponential analysis with an application to radar imaging. *SIAM Journal on Scientific Computing*, 42(3):B675–B695, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHL06] **Chauviere:2006:CMU**
 C. Chauvière, J. S. Hesthaven, and L. Lurati. Computational modeling of uncertainty in time-domain elec-
- [CHL16a] **Crouseilles:2016:NSKa**
 Nicolas Crouseilles, Hélène Hivert, and Mohammed Lemou. Numerical schemes for kinetic equations in the anomalous diffusion limit. Part I: The case of heavy-tailed equilibrium. *SIAM Journal on Scientific Computing*, 38(2):A737–A764, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHL16b] **Crouseilles:2016:NSKb**
 Nicolas Crouseilles, Hélène Hivert, and Mohammed Lemou. Numerical schemes for kinetic equations in the anomalous diffusion limit. Part II: Degenerate collision frequency. *SIAM Journal on Scientific Computing*, 38(4): A2464–A2491, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHL20] **Carlson:2020:PRD**
 Elizabeth Carlson, Joshua Hudson, and Adam Larios. Parameter recovery for the 2 dimensional Navier–Stokes equations via continuous data
- tromagnetics. *SIAM Journal on Scientific Computing*, 28(2):751–775, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62167.html.

assimilation. *SIAM Journal on Scientific Computing*, 42(1):A250–A270, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Colton:2002:LSM [Cho00]

[CHM02] David Colton, Houssein Hadjar, and Peter Monk. The linear sampling method for solving the electromagnetic inverse scattering problem. *SIAM Journal on Scientific Computing*, 24(3):719–731, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39046>.

Connolly:2021:SRP [Cho01]

[CHM21] Michael P. Connolly, Nicholas J. Higham, and Theo Mary. Stochastic rounding and its probabilistic backward error analysis. *SIAM Journal on Scientific Computing*, 43(1):A566–A585, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2010:CRB [Cho05]

[CHMR10] Yanlai Chen, Jan S. Hesthaven, Yvon Maday, and Jerónimo Rodríguez. Certified reduced basis methods and output bounds for the harmonic Maxwell’s equations. *SIAM Journal on Scientific Computing*, 32(2):

970–996, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chow:2000:PSP

Edmond Chow. A priori sparsity patterns for parallel sparse approximate inverse preconditioners. *SIAM Journal on Scientific Computing*, 21(5):1804–1822, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33913>.

Chopp:2001:SIF

David L. Chopp. Some improvements of the fast marching method. *SIAM Journal on Scientific Computing*, 23(1):230–244, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37617>.

Chow:2005:AMM

Edmond Chow. An aggregation multilevel method using smooth error vectors. *SIAM Journal on Scientific Computing*, 27(5):1727–1741, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60819.html.

- [Cho09] **Chopp:2009:ALV**
David L. Chopp. Another look at velocity extensions in the level set method. *SIAM Journal on Scientific Computing*, 31(5):3255–3273, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHR02] **Christlieb:2012:PST**
Andrew J. Christlieb, Ronald D. Haynes, and Benjamin W. Ong. A parallel space-time algorithm. *SIAM Journal on Scientific Computing*, 34(5):C233–C248, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHR99] **Cao:1999:SMF**
Weiming Cao, Weizhang Huang, and Robert D. Russell. A study of monitor functions for two-dimensional adaptive mesh generation. *SIAM Journal on Scientific Computing*, 20(6):1978–1994, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32765>.
- [CHR02] **Cao:2002:MMM**
Weiming Cao, Weizhang Huang, and Robert D. Russell. A moving mesh method based on the geometric conservation law. *SIAM Journal on Scientific Computing*, 24(1):118–142, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38492>.
- [CHR09] **Christiansen:2009:CPS**
Snorre H. Christiansen. Constraint preserving schemes for some gauge invariant wave equations. *SIAM Journal on Scientific Computing*, 31(2):1448–1469, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHP20] **Carson:2020:TPG**
Erin Carson, Nicholas J. Higham, and Srikanth Pranesh. Three-precision GMRES-based iterative refinement for least squares problems. *SIAM Journal on Scientific Computing*, 42(6):A4063–A4083, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CHV⁺18] **Cajas:2018:FSI**
J. C. Cajas, G. Houzeaux, M. Vázquez, M. García, E. Casoni, H. Calmet, A. Artigues, R. Borrell, O. Lehmkuhl, D. Pastrana, D. J. Yáñez, R. Pons, and J. Martorell. Fluid-structure interaction based on HPC multicode coupling. *SIAM Journal on Scientific Computing*, 40(6):C677–C703,

- ???? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CHWY23]
- [CHW17a] Jesse Chan, Russell J. Hewett, and T. Warburton. Weight-adjusted discontinuous Galerkin methods: Curvilinear meshes. *SIAM Journal on Scientific Computing*, 39(6):A2395–A2421, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chan:2017:WADa**
- [CHW17b] Jesse Chan, Russell J. Hewett, and T. Warburton. Weight-adjusted discontinuous Galerkin methods: Wave propagation in heterogeneous media. *SIAM Journal on Scientific Computing*, 39(6):A2935–A2961, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chan:2017:WADb**
- [CHW20] Dominic Etienne Charrier, Benjamin Hazelwood, and Tobias Weinzierl. Enclave tasking for DG methods on dynamically adaptive meshes. *SIAM Journal on Scientific Computing*, 42(3):C69–C96, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Charrier:2020:ETD**
- [CHX15] Xiaoxiao Chen, Yanyan He, and Dongbin Xiu. An efficient method for uncertainty propagation using fuzzy sets. *SIAM Journal on Scientific Computing*, 37(6):A2488–A2507, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chen:2015:EMU**
- [CHZ21] Yat Tin Chow, Fuqun Han, and Jun Zou. A direct sampling method for simultaneously recovering inhomogeneous inclusions of different nature. *SIAM Journal on Scientific Computing*, 43(3):A2161–A2189, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chow:2021:DSM**
- [CI19] F. Caforio and S. Imperiale. A high-order spectral element **Caforio:2019:HOS**
- Fan Chen, Jianguo Huang, Chunmei Wang, and Haizhao Yang. Friedrichs learning: Weak solutions of partial differential equations via deep learning. *SIAM Journal on Scientific Computing*, 45(3):A1271–A1299, ????. 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1488405>. **Chen:2023:FLW**

- fast Fourier transform for the Poisson equation. *SIAM Journal on Scientific Computing*, 41(5):A2747–A2771, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CJ95]
- [CILZ15] Yat Tin Chow, Kazufumi Ito, Keji Liu, and Jun Zou. Direct sampling method for diffusive optical tomography. *SIAM Journal on Scientific Computing*, 37(4):A1658–A1684, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CJ99]
- [CIZ16] Yat Tin Chow, Kazufumi Ito, and Jun Zou. Analysis on a nonnegative matrix factorization and its applications. *SIAM Journal on Scientific Computing*, 38(5):B645–B684, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CIZ18] Yat Tin Chow, Kazufumi Ito, and Jun Zou. A time-dependent direct sampling method for recovering moving potentials in a heat equation. *SIAM Journal on Scientific Computing*, 40(4):A2720–A2748, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CJ05a]
- Collino:1995:SOA**
- F. Collino and P. Joly. Splitting of operators, alternate directions, and paraxial approximations for the three-dimensional wave equation. *SIAM Journal on Scientific Computing*, 16(5):1019–1048, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Coleman:1999:ECS**
- Thomas F. Coleman and Gudbjorn F. Jonsson. The efficient computation of structured gradients using automatic differentiation. *SIAM Journal on Scientific Computing*, 20(4):1430–1437, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32079>.
- Chien:2005:TGD**
- C.-S. Chien and B.-W. Jeng. A two-grid discretization scheme for semilinear elliptic eigenvalue problems. *SIAM Journal on Scientific Computing*, 27(4):1287–1304, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60244.html.
- Chow:2015:DSM**
- Chow:2016:ANM**
- Chow:2018:TDD**

- [CJ05b] **Chowdhury:2005:SLM**
 Indranil Chowdhury and Vikram Jandhyala. Single level multipole expansions and operators for potentials of the form $r^{-\lambda}$. *SIAM Journal on Scientific Computing*, 26(3):930–943, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60224>.
- [CJ09] **Chabert:2009:PEA**
 Gilles Chabert and Luc Jaulin. A priori error analysis and spring arithmetic. *SIAM Journal on Scientific Computing*, 31(3):2214–2230, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CJGX15] **Chen:2015:LPC**
 Yi Chen, John Jakeman, Claude Gittelsohn, and Dongbin Xiu. Local polynomial chaos expansion for linear differential equations with high dimensional random inputs. *SIAM Journal on Scientific Computing*, 37(1):A79–A102, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CJH11] **Carpentieri:2011:BCI**
 B. Carpentieri, Y.-F. Jing, and T.-Z. Huang. The Bi-COR and CORS iterative algorithms for solving non-symmetric linear systems. *SIAM Journal on Scientific Computing*, 33(5):3020–3036, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p3020_s1.
- [CJK10] **Clason:2010:DBS**
 Christian Clason, Bangti Jin, and Karl Kunisch. A duality-based splitting method for ℓ^1 -TV image restoration with automatic regularization parameter choice. *SIAM Journal on Scientific Computing*, 32(3):1484–1505, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CJN13] **Chu:2013:IWR**
 Qing Chu, Stuart Jefferies, and James G. Nagy. Iterative wavefront reconstruction for astronomical imaging. *SIAM Journal on Scientific Computing*, 35(5):S84–S103, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CJY16] **Chen:2016:ALM**
 Weiqiang Chen, Hui Ji, and Yanfei You. An augmented Lagrangian method for ℓ_1 -regularized optimization problems with orthogonality constraints. *SIAM Journal on Scientific Computing*, 38(4):B570–B592,

- ???? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CK03]
- [CK94] **Coray:1994:HOA**
C. Coray and J. Koebbe. High order accuracy optimized methods for constrained numerical solutions of hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 15(4): 846–865, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CK98] **Chuang:1998:NMF**
Luhan Chuang and I. Norman Katz. Numerical methods for finding clustersolutions of optimal control problems. *SIAM Journal on Scientific Computing*, 20(1):126–147, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29529>.
- [CK02] **Cai:2002:NPI**
Xiao-Chuan Cai and David E. Keyes. Nonlinearly preconditioned inexact Newton algorithms. *SIAM Journal on Scientific Computing*, 24(1):183–200, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37620>. [CK17]
- Carstensen:2003:PFE**
Carsten Carstensen and R. Klose. A posteriori finite element error control for the P -Laplace problem. *SIAM Journal on Scientific Computing*, 25(3): 792–814, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41661>.
- [CK07] **Clason:2007:QRM**
Christian Clason and Michael V. Klibanov. The quasi-reversibility method for thermoacoustic tomography in a heterogeneous medium. *SIAM Journal on Scientific Computing*, 30(1):1–23, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CK15] **Chandrashekar:2015:SOW**
Praveen Chandrashekar and Christian Klingenberg. A second order well-balanced finite volume scheme for Euler equations with gravity. *SIAM Journal on Scientific Computing*, 37(3):B382–B402, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carnaffan:2017:SMF**
Sean Carnaffan and Reičhiro Kawai. Solving multidimensional

- mensional fractional Fokker–Planck equations via unbiased density formulas for anomalous diffusion processes. *SIAM Journal on Scientific Computing*, 39(5): B886–B915, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CK19] **Chen:2019:CEA**
Xiaojun Chen and C. T. Kelley. Convergence of the EDIIS algorithm for nonlinear equations. *SIAM Journal on Scientific Computing*, 41(1): A365–A379, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CK23] **Carson:2023:MPI**
Erin Carson and Noaman Khan. Mixed precision iterative refinement with sparse approximate inverse preconditioning. *SIAM Journal on Scientific Computing*, 45(3):C131–C153, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1487709>.
- [ÇKAA22] **Celiktug:2022:SCD**
Mestan Firat Çeliktug, M. Ozan Karsavuran, Seher Acer, and Cevdet Aykanat. Simultaneous computational and data load balancing in distributed-memory setting. *SIAM Journal on Scientific Computing*, 44(6):C399–C424, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1485772>.
- [CKBT16] **Constantine:2016:AMC**
Paul G. Constantine, Carson Kent, and Tan Bui-Thanh. Accelerating Markov chain Monte Carlo with active subspaces. *SIAM Journal on Scientific Computing*, 38(5): A2779–A2805, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CKD13] **Carson:2013:ACN**
Erin Carson, Nicholas Knight, and James Demmel. Avoiding communication in nonsymmetric Lanczos-based Krylov subspace methods. *SIAM Journal on Scientific Computing*, 35(5):S42–S61, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CKK03] **Coffey:2003:PCD**
Todd S. Coffey, C. T. Kelley, and David E. Keyes. Pseudotransient continuation and differential-algebraic equations. *SIAM Journal on Scientific Computing*, 25(2):553–569, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- /epubs.siam.org/sam-bin/dbq/article/41044.
- [CKK20] **Carvalho:2020:AAC**
Camille Carvalho, Shilpa Khatri, and Arnold D. Kim. Asymptotic approximations for the close evaluation of double-layer potentials. *SIAM Journal on Scientific Computing*, 42(1): A504–A533, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CKLL16] **Chen:2016:ADI**
Yuxin Chen, David Keyes, Kody J. H. Law, and Hatem Ltaief. Accelerated dimension-independent adaptive Metropolis. *SIAM Journal on Scientific Computing*, 38(5):S539–S565, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CKLN98] **Conroy:1998:DPS**
John M. Conroy, Steven G. Kratzer, Robert F. Lucas, and Aaron E. Naiman. Data-parallel sparse LU factorization. *SIAM Journal on Scientific Computing*, 19(2): 584–604, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27641>.
- [CKLP11] **Chartier:2011:SSR**
Timothy P. Chartier, Erich Kreutzer, Amy N. Langville, and Kathryn E. Pedings. Sensitivity and stability of ranking vectors. *SIAM Journal on Scientific Computing*, 33(3): 1077–1102, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1077_s1.
- [CKM23] **Cotter:2023:WNP**
Colin J. Cotter, Robert C. Kirby, and Hunter Morris. Weighted-norm preconditioners for a multilayer tide model. *SIAM Journal on Scientific Computing*, 45(4): A1789–A1811, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M150753X>.
- [CKN06] **Cools:2006:CEL**
Ronald Cools, Frances Y. Kuo, and Dirk Nuyens. Constructing embedded lattice rules for multivariate integration. *SIAM Journal on Scientific Computing*, 28(6):2162–2188, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CKO15] **Chung:2015:FRO**
Julianne M. Chung, Misha E. Kilmer, and Dianne P.

- O’Leary. A framework for regularization via operator approximation. *SIAM Journal on Scientific Computing*, 37(2):B332–B359, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CKS01]
- [CKOR16] Marco Caliari, Peter Kandler, Alexander Ostermann, and Stefan Rainer. The Leja method revisited: Backward error analysis for the matrix exponential. *SIAM Journal on Scientific Computing*, 38(3):A1639–A1661, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Caliari:2016:LMR**
- [CKQ14] N. Chalmers, L. Krivodonova, and R. Qin. Relaxing the CFL number of the discontinuous Galerkin method. *SIAM Journal on Scientific Computing*, 36(4):A2047–A2075, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chalmers:2014:RCN**
- [CKRS07] Sean Curtis, Robert M. Kirby, Jennifer K. Ryan, and Chi-Wang Shu. Postprocessing for the discontinuous Galerkin method over nonuniform meshes. *SIAM Journal on Scientific Computing*, 30(1):272–289, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Curtis:2007:PDG**
- [CKV99] So-Hsiang Chou, Do Y. Kwak, and Panayot S. Vassilevski. Mixed upwinding covolume methods on rectangular grids for convection-diffusion problems. *SIAM Journal on Scientific Computing*, 21(1):145–165, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32105>. **Chou:1999:MUC**
- [CKXZ18] Xiaojun Chen, C. T. Kelley, Fengmin Xu, and Zaikun Zhang. A smoothing direct search method for Monte Carlo-based bound constrained composite nonsmooth optimization. *SIAM Journal on Scientific Computing*, 40(1):1–28, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37277>. **Chen:2018:SDS**
- Zhiqiang Cai, Seokchan Kim, and Byeong-Chun Shin. Solution methods for the Poisson equation with corner singularities: Numerical results. *SIAM Journal on Scientific Computing*, 23(2):672–682, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37277>. **Cai:2001:SMP**

puting, 40(4):A2174–A2199, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:1998:MAN

[CKY98]

Zhangxin Chen, Do Y. Kwak, and Yoon J. Yon. Multi-grid algorithms for nonconforming and mixed methods for nonsymmetric and indefinite problems. *SIAM Journal on Scientific Computing*, 19(2):502–515, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28979>.

Chang:1997:MCF

[CL97]

Kou-Kung A. Chang and W. Brent Lindquist. Mass-conserving front tracking for miscible two-phase flow. *SIAM Journal on Scientific Computing*, 18(5):1310–1327, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28948>.

Chauviere:2003:ETS

[CL03]

C. Chauvière and A. Lozinski. An efficient technique for simulations of viscoelastic flows, derived from the Brownian configuration field method. *SIAM Journal on Scientific Computing*, 24(5):1823–1837, September 2003.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40082>.

Chu:2008:LDP

[CL08]

Moody T. Chu and Matthew M. Lin. Low-dimensional polytope approximation and its applications to nonnegative matrix factorization. *SIAM Journal on Scientific Computing*, 30(3):1131–1155, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2010:NRM

Zhenning Cai and Ruo Li. Numerical regularized moment method of arbitrary order for Boltzmann–BGK equation. *SIAM Journal on Scientific Computing*, 32(5):2875–2907, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2011:INM

[CL11]

Xiao-Chuan Cai and Xuefeng Li. Inexact Newton methods with restricted additive Schwarz based nonlinear elimination for problems with high local nonlinearity. *SIAM Journal on Scientific Computing*, 33(2):746–762, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40082>.

siam.org/sisc/resource/
1/sjoc3/v33/i2/p746_s1.

Cai:2018:QKM

- [CL18a] Zhenning Cai and Jianfeng Lu. A quantum kinetic Monte Carlo method for quantum many-body spin dynamics. *SIAM Journal on Scientific Computing*, 40(3):B706–B722, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2018:SHG

- [CL18b] Zhenning Cai and Jianfeng Lu. A surface hopping Gaussian beam method for high-dimensional transport systems. *SIAM Journal on Scientific Computing*, 40(5):B1277–B1301, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cheung:2018:KBE

- [CL18c] Ka Chun Cheung and Leevan Ling. A kernel-based embedding method and convergence analysis for surfaces PDEs. *SIAM Journal on Scientific Computing*, 40(1):A266–A287, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chu:2021:NPL

- [CL21] Moody T. Chu and Matthew M. [CLAT10] Lin. Nonlinear power-like and SVD-like iterative schemes

with applications to entangled bipartite rank-1 approximation. *SIAM Journal on Scientific Computing*, 43(5):S448–S474, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2022:CEC

- [CL22] Jiaxiang Cai and Hua Liang. Compact exponential conservative approaches for the Schrödinger equation in the semiclassical regimes. *SIAM Journal on Scientific Computing*, 44(3):B585–B604, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1439122>.

Charous:2023:DOR

- [CL23] Aaron Charous and Pierre F. J. Lermusiaux. Dynamically orthogonal Runge–Kutta schemes with perturbative retractions for the dynamical low-rank approximation. *SIAM Journal on Scientific Computing*, 45(2):A872–A897, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1431229>.

Chen:2010:NSH

Chang-Ming Chen, F. Liu, V. Anh, and I. Turner. Numerical schemes with

- high spatial accuracy for a variable-order anomalous subdiffusion equation. *SIAM Journal on Scientific Computing*, 32(4):1740–1760, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CLL13]
- [CLB21] Chao Chen, Tianyu Liang, and George Biros. RCHOL: Randomized Cholesky factorization for solving SDD linear systems. *SIAM Journal on Scientific Computing*, 43(6):C411–C438, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chen:2021:RRC**
- [CLDS19] Zhenhua Chai, Hong Liang, Rui Du, and Baochang Shi. A lattice Boltzmann model for two-phase flow in porous media. *SIAM Journal on Scientific Computing*, 41(4):B746–B772, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chai:2019:LBM**
- [CLK18] Chung-Ki Cho, Byungjoon Lee, and Seongjai Kim. Dual-mesh characteristics for particle-mesh methods for the simulation of convection-dominated flows. *SIAM Journal on Scientific Computing*, 40(3):A1763–A1783, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Cho:2018:DMC**
- [CLL20] Wei Cai, Xiaoguang Li, and Lizuo Liu. A phase shift deep neural network for high frequency approximation and wave problems. *SIAM Journal on Scientific Computing*, 42(5):A3285–A3312, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Cai:2020:PSD**
- [CLLW20] Ke Chen, Qin Li, Jianfeng Lu, and Stephen J. Wright. Random sampling and efficient algorithms for multi-scale PDEs. *SIAM Journal on Scientific Computing*, 42(5):A2974–A3005, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chen:2020:RSE**
- [CLLY20] Shusheng Chen, Boxi Lin, Yansu Li, and Chao Yan. Multidomain hybrid RKDG and WENO methods for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 35(2):A1049–A1072, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Cheng:2013:MHR**
- [CLLY20] Shusheng Chen, Boxi Lin, Yansu Li, and Chao Yan. Multidomain hybrid RKDG and WENO methods for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 35(2):A1049–A1072, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chen:2020:HLM**

- HLLC+: Low-Mach shock-stable HLLC-type Riemann solver for all-speed flows. *SIAM Journal on Scientific Computing*, 42(4):B921–B950, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CLMM00a] **Cai:2000:FOSa** [CLNZ16] Z. Cai, C.-O. Lee, T. A. Manteuffel, and S. F. McCormick. First-order system least squares for linear elasticity: Numerical results. *SIAM Journal on Scientific Computing*, 21(5):1706–1727, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33864>.
- [CLMM00b] **Cai:2000:FOSb** [CLP08] Z. Cai, C.-O. Lee, T. A. Manteuffel, and S. F. McCormick. First-order system least squares for the Stokes and linear elasticity equations: Further results. *SIAM Journal on Scientific Computing*, 21(5):1728–1739, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33865>.
- [CLN12] **Chu:2012:SOL** Delin Chu, Li-Zhi Liao, and Michael K. Ng. Sparse orthogonal linear discriminant analysis. *SIAM Journal on Scientific Computing*, 34(5):A2421–A2443, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chang:2016:PRI** Huibin Chang, Yifei Lou, Michael K. Ng, and Tiejong Zeng. Phase retrieval from incomplete magnitude information via total variation regularization. *SIAM Journal on Scientific Computing*, 38(6):A3672–A3695, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Castro:2008:FVS** [CLPS03] Manuel J. Castro, Juan Antonio López, and Carlos Parés. Finite volume simulation of the geostrophic adjustment in a rotating shallow-water system. *SIAM Journal on Scientific Computing*, 31(1):444–477, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cao:2003:ASA** Yang Cao, Shengtai Li, Linda Petzold, and Radu Serban. Adjoint sensitivity analysis for differential-algebraic equations: The adjoint DAE system and its numerical solution. *SIAM Journal*

- on *Scientific Computing*, 24(3):1076–1089, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38063>.
- [CLQ12] **Cai:2012:NSM** [CLTX15] Zhenning Cai, Ruo Li, and Zhonghua Qiao. NRxx simulation of microflows with Shakhov model. *SIAM Journal on Scientific Computing*, 34(1):A339–A369, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA339_s1
- [CLS16] **Chidyagwai:2016:CPC** [CLW13] Prince Chidyagwai, Scott Ladenheim, and Daniel B. Szyld. Constraint preconditioning for the coupled Stokes–Darcy system. *SIAM Journal on Scientific Computing*, 38(2):A668–A690, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CLST03] **Cheng:2003:SDR** [CM98a] H. Cheng, P. Lin, Q. Sheng, and R. C. E. Tan. Solving degenerate reaction-diffusion equations via variable step Peaceman–Rachford splitting. *SIAM Journal on Scientific Computing*, 25(4):1273–1292, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38069>.
- Christlieb:2015:PPF** Andrew J. Christlieb, Yuan Liu, Qi Tang, and Zhengfu Xu. Positivity-preserving finite difference weighted ENO schemes with constrained transport for ideal magnetohydrodynamic equations. *SIAM Journal on Scientific Computing*, 37(4):A1825–A1845, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cai:2013:SVE** Zhenning Cai, Ruo Li, and Yanli Wang. Solving Vlasov equations using NRxx method. *SIAM Journal on Scientific Computing*, 35(6):A2807–A2831, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Carlson:1998:DAGa** Neil N. Carlson and Keith Miller. Design and application of a gradient-weighted moving finite element code I: in one dimension. *SIAM Journal on Scientific Computing*, 19(3):728–765, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26955>.
- [CM98b] **Carlson:1998:DAGb** [CM09] Neil N. Carlson and Keith Miller. Design and application of a gradient-weighted moving finite element code II: in two dimensions. *SIAM Journal on Scientific Computing*, 19(3):766–798, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26956>.
- [CM98c] **Collino:1998:PML** [CM13] Francis Collino and Peter Monk. The perfectly matched layer in curvilinear coordinates. *SIAM Journal on Scientific Computing*, 19(6):2061–2090, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30140>.
- [CM99] **Cohen:1999:WMS** [CM15] A. Cohen and R. Masson. Wavelet methods for second-order elliptic problems, preconditioning, and adaptivity. *SIAM Journal on Scientific Computing*, 21(3):1006–1026, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33061>.
- Carrillo:2009:NSD** [CMK11] J. A. Carrillo and J. S. Moll. Numerical simulation of diffusive and aggregation phenomena in nonlinear continuity equations by evolving diffeomorphisms. *SIAM Journal on Scientific Computing*, 31(6):4305–4329, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Conrad:2013:ASP** Patrick R. Conrad and Youssef M. Marzouk. Adaptive Smolyak pseudospectral approximations. *SIAM Journal on Scientific Computing*, 35(6):A2643–A2670, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chen:2015:CPM** Yujia Chen and Colin B. Macdonald. The closest point method and multigrid solvers for elliptic equations on surfaces. *SIAM Journal on Scientific Computing*, 37(1):A134–A155, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chen:2011:IPC** D. Chen, S. MacLachlan, and M. Kilmer. Iterative

- parameter-choice and multigrid methods for anisotropic diffusion denoising. *SIAM Journal on Scientific Computing*, 33(5):2972–2994, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2972_s1 [CMM95]
- Contreras:2018:PDDa**
- [CML⁺18a] Andres A. Contreras, Paul Mycek, Olivier P. Le Maître, Francesco Rizzi, Bert Debuschere, and Omar M. Knio. Parallel domain decomposition strategies for stochastic elliptic equations. Part A: Local Karhunen–Loève representations. *SIAM Journal on Scientific Computing*, 40(4):C520–C546, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CMM00]
- Contreras:2018:PDDb**
- [CML⁺18b] Andres A. Contreras, Paul Mycek, Olivier P. Le Maître, Francesco Rizzi, Bert Debuschere, and Omar M. Knio. Parallel domain decomposition strategies for stochastic elliptic equations. Part B: Accelerated Monte Carlo sampling with local PC expansions. *SIAM Journal on Scientific Computing*, 40(4):C547–C580, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CMM⁺07]
- Cortelazzo:1995:RMC**
- G. Cortelazzo, G. A. Mian, and M. Morandini. Rational multiple criterion approximation and rational complex approximation by differential correction-type algorithms. *SIAM Journal on Scientific Computing*, 16(4):974–991, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chan:2000:HOT**
- Tony Chan, Antonio Marquina, and Pep Mulet. High-order total variation-based image restoration. *SIAM Journal on Scientific Computing*, 22(2):503–516, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34416>.
- Chang:2007:SMI**
- B. Chang, T. Manteuffel, S. McCormick, J. Ruge, and B. Sheehan. Spatial multigrid for isotropic neutron transport. *SIAM Journal on Scientific Computing*, 29(5):1900–1917, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Christlieb:2010:PHO**
- Andrew J. Christlieb, Colin B. Macdonald, and Benjamin W.

- Ong. Parallel high-order integrators. *SIAM Journal on Scientific Computing*, 32(2): 818–835, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CMV97]
- [CMS94] Tony F. Chan, Tarek P. Mathew, and Jian Ping Shao. Efficient variants of the vertex space domain decomposition algorithm. *SIAM Journal on Scientific Computing*, 15(6):1349–1374, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chan:1994:EVV**
- [CMS17] D. E. Charrier, D. A. May, and S. M. Schnepp. Symmetric interior penalty discontinuous Galerkin discretizations and block preconditioning for heterogeneous Stokes flow. *SIAM Journal on Scientific Computing*, 39(6): B1021–B1042, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Charrier:2017:SIP**
- [CMZ19] D. E. Charrier, D. A. May, and S. M. Schnepp. Symmetric interior penalty discontinuous Galerkin discretizations and block preconditioning for heterogeneous Stokes flow. *SIAM Journal on Scientific Computing*, 39(6): B1021–B1042, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chen:2019:MFE**
- [CN93] Raymond H. Chan and Kwok-Po Ng. Fast iterative solvers for Toeplitz-plus-band systems. *SIAM Journal on Scientific Computing*, 14(5): 1013–1019, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Chan:1993:FIS**
- [CMSS06] S. Corsaro, K. Mikula, A. Sarti, and F. Sgallari. Semi-implicit covolume method in 3D image segmentation. *SIAM Journal on Scientific Computing*, 28(6):2248–2265, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Corsaro:2006:SIC**
- Tony F. Chan, Svetozar D. Margenov, and Panayot S. Vassilevski. Performance of block-ILU factorization preconditioners based on block-size reduction for 2D elasticity systems. *SIAM Journal on Scientific Computing*, 18(5): 1355–1366, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27739>.
- Jingrun Chen, Dingjiong Ma, and Zhiwen Zhang. A multiscale finite element method for the Schrödinger equation with multiscale potentials. *SIAM Journal on Scientific Computing*, 41(5): B1115–B1136, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- Chan:1999:GPM**
- [CN99] Tony F. Chan and Michael K. Ng. Galerkin projection methods for solving multiple linear systems. *SIAM Journal on Scientific Computing*, 21(3):836–850, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31022>. [Coa12]
- Chung:2010:EIA**
- [CN10] Julianne Chung and James G. Nagy. An efficient iterative approach for large-scale separable nonlinear inverse problems. *SIAM Journal on Scientific Computing*, 31(6):4654–4674, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Cor98]
- Cavalli:2012:DGA**
- [CNP12] Fausto Cavalli, Giovanni Naldi, and Ilaria Perugia. Discontinuous Galerkin approximation of relaxation models for linear and nonlinear diffusion equations. *SIAM Journal on Scientific Computing*, 34(1):A105–A136, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v34/i1/pA105_s1 [COR13]
- Coatleven:2012:TBC**
- Julien Coatleven. Transparent boundary conditions for evolution equations in infinite periodic strips. *SIAM Journal on Scientific Computing*, 34(3):A1563–A1583, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cortez:1998:AIM**
- Ricardo Cortez. On the accuracy of impulse methods for fluid flow. *SIAM Journal on Scientific Computing*, 19(4):1290–1302, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29357>.
- Cortez:2001:MRS**
- [Cor01] Ricardo Cortez. The method of regularized Stokeslets. *SIAM Journal on Scientific Computing*, 23(4):1204–1225, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38146>.
- Caliari:2013:MEI**
- [COR13] Marco Caliari, Alexander Ostermann, and Stefan Rainer. Meshfree exponential integrators. *SIAM Journal on Scientific Computing*, 35(1):A431–A452, 2013. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cartwright:2006:PSS

[COS06]

C. Cartwright, S. Oliveira, and D. E. Stewart. Parallel support set searches for meshfree methods. *SIAM Journal on Scientific Computing*, 28(4):1318–1334, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CP03a]

Chaudhry:2021:LSF

[COS21]

Jehanzeb H. Chaudhry, Luke N. Olson, and Peter Sentz. A least-squares finite element reduced basis method. *SIAM Journal on Scientific Computing*, 43(2):A1081–A1107, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CP03b]

Cai:1996:DNC

[COZ96]

Wei Cai, Wonho Oh, and Youlan Zhu. Direct numerical calculations of a neutral stability curve for one-dimensional detonations. *SIAM Journal on Scientific Computing*, 17(4):814–829, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CP04]

Conroy:1995:PIM

[CP95]

John M. Conroy and Louis J. Podrazik. A parallel inertia method for finding eigenvalues on vector and SIMD ar-

chitectures. *SIAM Journal on Scientific Computing*, 16(2):500–505, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Carstensen:2003:PEC

Carsten Carstensen and Dirk Praetorius. A posteriori error control in adaptive localization boundary element analysis for a logarithmic-kernel integral equation of the first kind. *SIAM Journal on Scientific Computing*, 25(1):259–283, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chang:2003:OTA

Xiao-Wen Chang and Christopher C. Paige. An orthogonal transformation algorithm for GPS positioning. *SIAM Journal on Scientific Computing*, 24(5):1710–1732, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39793>.

Cao:2004:PEE

Yang Cao and Linda Petzold. A posteriori error estimation and global error control for ordinary differential equations by the adjoint method. *SIAM Journal on Scientific Computing*,

26(2):359–374, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42096>.

Carstensen:2005:ATE

[CP05]

Carsten Carstensen and Dirk Praetorius. Averaging techniques for the effective numerical solution of Symm’s integral equation of the first kind. *SIAM Journal on Scientific Computing*, 27(4):1226–1260, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60903.html.

Carstensen:2007:ATP

[CP07]

Carsten Carstensen and Dirk Praetorius. Averaging techniques for the a posteriori BEM error control for a hypersingular integral equation in two dimensions. *SIAM Journal on Scientific Computing*, 29(2):782–810, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chatelin:2013:HGP

[CP13]

Robin Chatelin and Philippe Poncet. A hybrid Grid-particle method for moving bodies in 3D Stokes flow with variable viscosity. *SIAM Journal on Scientific Computing*, 35(4):B925–

B949, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chow:2015:FGP

[CP15a]

Edmond Chow and Aftab Patel. Fine-grained parallel incomplete LU factorization. *SIAM Journal on Scientific Computing*, 37(2):C169–C193, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chung:2015:HLA

[CP15b]

Julianne Chung and Katrina Palmer. A hybrid LSMR algorithm for large-scale Tikhonov regularization. *SIAM Journal on Scientific Computing*, 37(5):S562–S580, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Croft:2017:LSP

[CP17]

Thomas L. D. Croft and Timothy N. Phillips. Least-squares proper generalized decompositions for weakly coercive elliptic problems. *SIAM Journal on Scientific Computing*, 39(4):A1366–A1388, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CPB13] **Carpio:2013:AGO**
 Jaime Carpio, Juan Luis Prieto, and Rodolfo Bermejo. Anisotropic “goal-oriented” mesh adaptivity for elliptic problems. *SIAM Journal on Scientific Computing*, 35(2): A861–A885, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPB19] **Crowder:2019:EAM**
 Adam J. Crowder, Catherine E. Powell, and Alex Bespalov. Efficient adaptive multilevel stochastic Galerkin approximation using implicit a posteriori error estimation. *SIAM Journal on Scientific Computing*, 41(3): A1681–A1705, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPD17] **Coulier:2017:IFM**
 Pieter Coulier, Hadi Pouransari, and Eric Darve. The inverse fast multipole method: Using a fast approximate direct solver as a preconditioner for dense linear systems. *SIAM Journal on Scientific Computing*, 39(3): A761–A796, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPG20] **Chang:2020:MME**
 Patrick Chang, Etienne Pienaar, and Tim Gebie. Malliavin–Mancino estimators implemented with nonuniform fast Fourier transforms. *SIAM Journal on Scientific Computing*, 42(6):B1378–B1403, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPH14] **Candelaresi:2014:MML**
 S. Candelaresi, D. Pontin, and G. Hornig. Mimetic methods for Lagrangian relaxation of magnetic fields. *SIAM Journal on Scientific Computing*, 36(6):B952–B968, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPP+17] **Calvetti:2017:PCB**
 D. Calvetti, F. Pitolli, J. Prezioso, E. Somersalo, and B. Vantaggi. Priorconditioned CGLS-based quasi-MAP estimate, statistical stopping rule, and ranking of priors. *SIAM Journal on Scientific Computing*, 39(5): S477–S500, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CPPR12] **Castro:2012:CSN**
 M. J. Castro, Carlos Parés, Gabriella Puppo, and Giovanni Russo. Central schemes for nonconservative hyperbolic systems. *SIAM Journal on Scientific Computing*,

34(5):B523–B558, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CPS20]

Cutolo:2011:UES

[CPR11] Alfredo Cutolo, Benedetto Piccoli, and Luigi Rarità. An upwind-Euler scheme for an ODE–PDE model of supply chains. *SIAM Journal on Scientific Computing*, 33(4):1669–1688, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1669_s1

Crouzeix:1994:DM

[CPS94] M. Crouzeix, B. Philippe, and M. Sadkane. The Davidson method. *SIAM Journal on Scientific Computing*, 15(1):62–76, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Choi:2011:MQK

[CPS11] Sou-Cheng T. Choi, Christopher C. Paige, and Michael A. Saunders. MINRES-QLP: a Krylov subspace method for indefinite or singular symmetric systems. *SIAM Journal on Scientific Computing*, 33(4):1810–1836, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1810_s1

Calvetti:2020:SPH

Daniela Calvetti, Monica Pragliola, and Erkki Somersalo. Sparsity promoting hybrid solvers for hierarchical Bayesian inverse problems. *SIAM Journal on Scientific Computing*, 42(6):A3761–A3784, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chang:2005:CTS

[CPT05] Xiao-Wen Chang, Christopher C. Paige, and Christian C. J. M. Tiberius. Computation of a test statistic in data quality control. *SIAM Journal on Scientific Computing*, 26(6):1916–1931, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60155>.

Carey:1995:LSM

[CPV95] G. F. Carey, A. I. Pehlivanov, and P. S. Vassilevski. Least-squares mixed finite element methods for non-selfadjoint elliptic problems: II. performance of Block-ILU factorization methods. *SIAM Journal on Scientific Computing*, 16(5):1126–1136, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CPW15] **Cai:2015:OSM**
Mingchao Cai, Luca F. Pavarino, and Olof B. Widlund. Overlapping Schwarz methods with a standard coarse space for almost incompressible linear elasticity. *SIAM Journal on Scientific Computing*, 37(2):A811–A830, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CQ22] **Cai:2022:ELR**
Xiaofeng Cai and Jing-Mei Qiu. Eulerian–Lagrangian Runge–Kutta discontinuous Galerkin method for transport simulations on unstructured meshes. *SIAM Journal on Scientific Computing*, 44(4):A2037–A2060, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1456753>.
- [CQZ17] **Chen:2017:FVL**
Yannan Chen, Liqun Qi, and Xiaoyan Zhang. The Fiedler vector of a Laplacian tensor for hypergraph partitioning. *SIAM Journal on Scientific Computing*, 39(6):A2508–A2537, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CR04] **Calvetti:2004:TRS**
Daniela Calvetti and Lothar Reichel. Tikhonov regularization with a solution constraint. *SIAM Journal on Scientific Computing*, 26(1):224–239, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41228>.
- [CR16] **Campos:2016:PKS**
Carmen Campos and Jose E. Roman. Parallel Krylov solvers for the polynomial eigenvalue problem in SLEPc. *SIAM Journal on Scientific Computing*, 38(5):S385–S411, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CR21] **Chinomona:2021:IEM**
Rujeko Chinomona and Daniel R. Reynolds. Implicit-explicit multirate infinitesimal GARK methods. *SIAM Journal on Scientific Computing*, 43(5):A3082–A3113, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CR23] **Carlier:2023:IDP**
Valentin Carlier and Florent Renac. Invariant domain preserving high-order spectral discontinuous approximations of hyperbolic systems. *SIAM Journal on Scientific Computing*, 45(3):A1385–A1412, 2023. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1492015>. [CRS+18]
- [CRMC12] Rafael G. Campos, J. Rico-Melgoza, and Edgar Chávez. A new formulation of the Fast Fractional Fourier Transform. *SIAM Journal on Scientific Computing*, 34(2): A1110–A1125, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CRO23] Andrei Chertkov, Gleb Ryzhakov, and Ivan Oseledets. Black box approximation in the tensor train format initialized by ANOVA decomposition. *SIAM Journal on Scientific Computing*, 45(4): A2101–A2118, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1514088>. [CRS20]
- [CRR18] Gerald Collom, Colin Redman, and Robert W. Robey. Fast mesh-to-mesh remaps using hash algorithms. *SIAM Journal on Scientific Computing*, 40(4): C450–C476, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Carson:2018:NSA] Erin C. Carson, Miroslav Rozložník, Zdenek Strakos, Petr Tichý, and Miroslav Tuma. The numerical stability analysis of pipelined conjugate gradient methods: Historical context and methodology. *SIAM Journal on Scientific Computing*, 40(5): A3549–A3580, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Chen:2020:SPN] Zhengdao Chen, Baranidharan Raman, and Ari Stern. Structure-preserving numerical integrators for Hodgkin–Huxley-type systems. *SIAM Journal on Scientific Computing*, 42(1): B273–B298, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Chaudhry:2021:PEA] Jehanzeb H. Chaudhry, Ari E. Rappaport, and John N. Shadid. An a posteriori error analysis for the equations of stationary incompressible magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 43(2): B354–B380, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CRT11] **Coakley:2011:FRA**
 E. S. Coakley, V. Rokhlin, and M. Tygert. A fast randomized algorithm for orthogonal projection. *SIAM Journal on Scientific Computing*, 33(2):849–868, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p849_s1. [CS96]
- [CRV13] **Corveleyn:2013:ISS**
 Samuel Corveleyn, Eveline Rosseel, and Stefan Vandewalle. Iterative solvers for a spectral Galerkin approach to elliptic partial differential equations with fuzzy coefficients. *SIAM Journal on Scientific Computing*, 35(5):S420–S444, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CS97]
- [CRV14] **Cools:2014:EMC**
 Siegfried Cools, Bram Reys, and Wim Vanroose. An efficient multigrid calculation of the far field map for Helmholtz and Schrödinger equations. *SIAM Journal on Scientific Computing*, 36(3):B367–B395, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CS98]
- [CS94] **Caginalp:1994:PFC**
 G. Caginalp and E. Socolovsky. Phase field computations of single-needle crystals, crystal growth, and motion by mean curvature. *SIAM Journal on Scientific Computing*, 15(1):106–126, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CS96]
- Chan:1996:CSP**
 Tony F. Chan and Tedd Szeto. Composite step product methods for solving nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 17(6):1491–1508, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26920>.
- Chow:1997:AIT**
 Edmond Chow and Yousef Saad. Approximate inverse techniques for block-partitioned matrices. *SIAM Journal on Scientific Computing*, 18(6):1657–1675, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28157>.
- Chow:1998:AIP**
 Edmond Chow and Yousef Saad. Approximate inverse preconditioners via sparse-sparse iterations. *SIAM Journal on Scientific Computing*,

- 19(3):995–1023, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27041>. [CS10c]
- Cai:1999:RAS**
- [CS99] Xiao-Chuan Cai and Marcus Sarkis. A restricted additive Schwarz preconditioner for general sparse linear systems. *SIAM Journal on Scientific Computing*, 21(2):792–797, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32678>. [CS11]
- Chaturantabut:2010:NMR**
- [CS10a] Saifon Chaturantabut and Danny C. Sorensen. Nonlinear model reduction via discrete empirical interpolation. *SIAM Journal on Scientific Computing*, 32(5):2737–2764, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CS12]
- Constantinescu:2010:EIE**
- [CS10b] Emil M. Constantinescu and Adrian Sandu. Extrapolated implicit-explicit time stepping. *SIAM Journal on Scientific Computing*, 31(6):4452–4477, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CS14]
- Constantinescu:2010:OES**
- Emil M. Constantinescu and Adrian Sandu. Optimal explicit strong-stability-preserving general linear methods. *SIAM Journal on Scientific Computing*, 32(5):3130–3150, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chen:2011:ADG**
- Jie Chen and Ilya Safro. Algebraic distance on graphs. *SIAM Journal on Scientific Computing*, 33(6):3468–3490, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3468_s1
- Cockburn:2012:SDB**
- Bernardo Cockburn and Manuel Solano. Solving Dirichlet boundary-value problems on curved domains by extensions from subdomains. *SIAM Journal on Scientific Computing*, 34(1):A497–A519, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chow:2014:PKS**
- Edmond Chow and Yousef Saad. Preconditioned Krylov subspace methods for sampling multivariate Gaussian

- distributions. *SIAM Journal on Scientific Computing*, 36(2):A588–A608, 2014. [CS18b]
CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CS16] **Cockburn:2016:HDG**
Bernardo Cockburn and Jiguang Shen. A hybridizable discontinuous Galerkin method for the p -Laplacian. *SIAM Journal on Scientific Computing*, 38(1):A545–A566, 2016. [CS20]
CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CS17] **Chung:2017:GHI**
Julianne Chung and Arvind K. Saibaba. Generalized hybrid iterative methods for large-scale Bayesian inverse problems. *SIAM Journal on Scientific Computing*, 39(5):S24–S46, 2017. [CS23]
CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CS18a] **Cervi:2018:HOO**
Jessica Cervi and Raymond J. Spiteri. High-order operator splitting for the bidomain and monodomain models. *SIAM Journal on Scientific Computing*, 40(2):A769–A786, 2018. [CSB⁺18]
CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cheng:2018:MSA**
Qing Cheng and Jie Shen. Multiple scalar auxiliary variable (MSAV) approach and its application to the phase-field vesicle membrane model. *SIAM Journal on Scientific Computing*, 40(6):A3982–A4006, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cheng:2020:GCP**
Qing Cheng and Jie Shen. Global constraints preserving scalar auxiliary variable schemes for gradient flows. *SIAM Journal on Scientific Computing*, 42(4):A2489–A2513, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cheng:2023:LPN**
Qing Cheng and Jie Shen. Length preserving numerical schemes for Landau–Lifshitz equation based on Lagrange multiplier approaches. *SIAM Journal on Scientific Computing*, 45(2):A530–A553, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1501143>.
- Cazelles:2018:GPV**
Elsa Cazelles, Vivien Seguy, Jérémie Bigot, Marco Caturì, and Nicolas Papadakis.

- Geodesic PCA versus Log-PCA of histograms in the Wasserstein space. *SIAM Journal on Scientific Computing*, 40(2):B429–B456, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CSS10]
- Calvo:1993:DVS**
- [CSS93a] M. P. Calvo and J. M. Sanz-Serna. The development of variable-step symplectic integrators, with application to the two-body problem. *SIAM Journal on Scientific Computing*, 14(4):936–952, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CSS12]
- Calvo:1993:HOS**
- [CSS93b] M. P. Calvo and J. M. Sanz-Serna. High-order symplectic Runge–Kutta–Nyström methods. *SIAM Journal on Scientific Computing*, 14(5):1237–1252, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CST⁺13]
- Calvo:2009:III**
- [CSS09] M. P. Calvo and J. M. Sanz-Serna. Instabilities and inaccuracies in the integration of highly oscillatory problems. *SIAM Journal on Scientific Computing*, 31(3):1653–1677, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CST16]
- Calvo:2010:HMM**
- M. P. Calvo and J. M. Sanz-Serna. Heterogeneous multiscale methods for mechanical systems with vibrations. *SIAM Journal on Scientific Computing*, 32(4):2029–2046, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cockburn:2012:CDH**
- Bernardo Cockburn, Francisco Javier Sayas, and Manuel Solano. Coupling at a distance HDG and BEM. *SIAM Journal on Scientific Computing*, 34(1):A28–A47, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA28_s1.
- Cyr:2013:NAB**
- Eric C. Cyr, John N. Shadid, Raymond S. Tuminaro, Roger P. Pawlowski, and Luis Chacón. A new approximate block factorization preconditioner for two-dimensional incompressible (reduced) resistive MHD. *SIAM Journal on Scientific Computing*, 35(3):B701–B730, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Cyr:2016:TBP**
- Eric C. Cyr, John N. Shadid, and Raymond S. Tuminaro.

- Teko: a block preconditioning capability with concrete example applications in Navier–Stokes and MHD. *SIAM Journal on Scientific Computing*, 38(5):S307–S331, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CSW99] **Carstensen:1999:AFE**
C. Carstensen, O. Scherf, and P. Wriggers. Adaptive finite elements for elastic bodies in contact. *SIAM Journal on Scientific Computing*, 20(5):1605–1626, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29535>.
- [CSW10] **Curtis:2010:IPA**
Frank E. Curtis, Olaf Schenk, and Andreas Wächter. An interior-point algorithm for large-scale nonlinear optimization with inexact step computations. *SIAM Journal on Scientific Computing*, 32(6):3447–3475, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3447_s1.
- [CSW14] **Cyr:2014:AAB**
Eric C. Cyr, John Shadid, and Tim Wildey. Approaches for adjoint-based a posteriori analysis of stabilized finite element methods. *SIAM Journal on Scientific Computing*, 36(2):A766–A791, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CSZZ20] **Chen:2020:SAA**
Sheng Chen, Jie Shen, Zhimin Zhang, and Zhi Zhou. A spectrally accurate approximation to subdiffusion equations using the log orthogonal functions. *SIAM Journal on Scientific Computing*, 42(2):A849–A877, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CT94] **Chan:1994:FBT**
Raymond H. Chan and Ping Tak Peter Tang. Fast band-Toeplitz preconditioners for Hermitian Toeplitz systems. *SIAM Journal on Scientific Computing*, 15(1):164–171, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CT03] **Chan:2003:IDC**
Tony F. Chan and Xue-Cheng Tai. Identification of discontinuous coefficients in elliptic problems using total variation regularization. *SIAM Journal on Scientific Computing*, 25(3):881–904, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32602>. [CV98]
- [CTB15] Kevin Carlberg, Ray Tuminaro, and Paul Boggs. Preserving Lagrangian structure in nonlinear model reduction with application to structural dynamics. *SIAM Journal on Scientific Computing*, 37(2): B153–B184, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CV93] Paul H. Calamai and Luís N. Vicente. Generating linear and linear-quadratic bilevel programming problems. *SIAM Journal on Scientific Computing*, 14(4): 770–782, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CV12]
- [CV94] Shui-Nee Chow and Erik S. Van Vleck. A shadowing lemma approach to global error analysis for initial value ODES. *SIAM Journal on Scientific Computing*, 15(4): 959–976, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CV15]
- [Coleman:1998:ECS] Thomas F. Coleman and Arun Verma. The efficient computation of sparse Jacobian matrices using automatic differentiation. *SIAM Journal on Scientific Computing*, 19(4):1210–1233, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29534>.
- [Carrillo:2007:NIM] J. A. Carrillo and F. Vecil. Nonoscillatory interpolation methods applied to Vlasov-based models. *SIAM Journal on Scientific Computing*, 29(3):1179–1206, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Chacon:2012:FTS] Adam Chacon and Alexander Vladimirovsky. Fast two-scale methods for eikonal equations. *SIAM Journal on Scientific Computing*, 34(2): A547–A578, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Chacon:2015:PTS] Adam Chacon and Alexander Vladimirovsky. A parallel two-scale method for eikonal equations. *SIAM Journal on*

- [CVW06] *Scientific Computing*, 37(1): A156–A180, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CV16] **Cohen:2016:MDW**
David Cohen and Olivier Verdier. MultiSymplectic discretization of wave map equations. *SIAM Journal on Scientific Computing*, 38(2): A953–A972, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW93] **Cotter:2013:AFE**
Simon L. Cotter, Tomáš Vejchodský, and Radek Erban. Adaptive finite element method assisted by stochastic simulation of chemical systems. *SIAM Journal on Scientific Computing*, 35(1): B107–B131, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW97] **Cho:2013:ADG**
H. Cho, D. Venturi, and G. E. Karniadakis. Adaptive discontinuous Galerkin method for response-excitation PDF equations. *SIAM Journal on Scientific Computing*, 35(4): B890–B911, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CVW06] **Cuyt:2006:ERM**
Annie Cuyt, Brigitte Verdonk, and Haakon Waadeland. Efficient and reliable multiprecision implementation of elementary and special functions. *SIAM Journal on Scientific Computing*, 28(4):1437–1462, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW93] **Chu:1993:MEP**
Moody T. Chu and J. Loren Watterson. On a multivariate eigenvalue problem. I. algebraic theory and a power method. *SIAM Journal on Scientific Computing*, 14(5): 1089–1106, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW97] **Chan:1997:APM**
Tony F. Chan and W. L. Wan. Analysis of projection methods for solving linear systems with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 18(6): 1698–1721, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27306>.
- [CW06] **Christiansen:2006:CPN**
Snorre H. Christiansen and Ragnar Winther. On con-

- straint preservation in numerical simulations of Yang–Mills equations. *SIAM Journal on Scientific Computing*, 28(1):75–101, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61688.html. [CW14]
- Cai:2007:MMP**
- [CW07] Zhiqiang Cai and Yanqiu Wang. A multigrid method for the pseudostress formulation of Stokes problems. *SIAM Journal on Scientific Computing*, 29(5):2078–2095, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CW15]
- Constantine:2012:RMM**
- [CW12] Paul G. Constantine and Qiqi Wang. Residual minimizing model interpolation for parameterized nonlinear dynamical systems. *SIAM Journal on Scientific Computing*, 34(4):A2118–A2144, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CW16a]
- Chen:2013:DCL**
- [CW13] Sheng-Gwo Chen and Jyh-Yang Wu. Discrete conservation laws on curved surfaces. *SIAM Journal on Scientific Computing*, 35(2):A719–A739, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [CW16b]
- Chen:2014:DCL**
- Sheng-Gwo Chen and Jyh-Yang Wu. Discrete conservation laws on curved surfaces II: a dual approach. *SIAM Journal on Scientific Computing*, 36(4):A1813–A1830, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chan:2015:CHO**
- Jesse Chan and T. Warburton. A comparison of high order interpolation nodes for the pyramid. *SIAM Journal on Scientific Computing*, 37(5):A2151–A2170, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chan:2016:OBV**
- Jesse Chan and T. Warburton. Orthogonal bases for vertex-mapped pyramids. *SIAM Journal on Scientific Computing*, 38(2):A1146–A1170, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Chan:2016:SNB**
- Jesse Chan and T. Warburton. A short note on a Bernstein–Bezier basis for the pyramid. *SIAM Journal on Scientific Computing*, 38(4):A2162–A2172, 2016.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW16c] Sheng-Gwo Chen and Jyh-Yang Wu. Discrete conservation laws on evolving surfaces. *SIAM Journal on Scientific Computing*, 38(3):A1725–A1742, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW17] Jesse Chan and T. Warburton. GPU-accelerated Bernstein–Bézier discontinuous Galerkin methods for wave problems. *SIAM Journal on Scientific Computing*, 39(2):A628–A654, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW18] Noel Chalmers and T. Warburton. Low-order preconditioning of high-order triangular finite elements. *SIAM Journal on Scientific Computing*, 40(6):A4040–A4059, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CW22] Zhenning Cai and Yanli Wang. Numerical solver for the Boltzmann equation with self-adaptive collision operators. *SIAM Journal on Scientific Computing*, 44(2):B275–B309, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1398495>.
- [CWA14] Jie Chen, Lei Wang, and Mihai Anitescu. A fast summation tree code for Matérn kernel. *SIAM Journal on Scientific Computing*, 36(1):A289–A309, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CWC08] Anthony M. Castaldo, R. Clint Whaley, and Anthony T. Chronopoulos. Reducing floating point error in dot product using the superbloc family of algorithms. *SIAM Journal on Scientific Computing*, 31(2):1156–1174, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CWD13] Gregory S. Cochran, Thomas Wanner, and Pawel Dlotko. A randomized subdivision algorithm for determining the topology of nodal sets. *SIAM Journal on Scientific Computing*, 35(5):B1034–B1054, 2013. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Cooper:2010:PEA

- [CWG10] Jonathan Cooper, Jonathan P. Whiteley, and David J. Gavaghan. A posteriori error analysis for the use of lookup tables in cardiac electrophysiology simulations. *SIAM Journal on Scientific Computing*, 32(4):2167–2189, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2014:ROD

- [CWL⁺14] Zhonggui Chen, Wenping Wang, Bruno Lévy, Ligang Liu, and Feng Sun. Revisiting optimal Delaunay triangulation for 3D graded mesh generation. *SIAM Journal on Scientific Computing*, 36(3):A930–A954, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2015:MPS

- [CWX15] Huangxin Chen, Haijun Wu, and Xuejun Xu. Multi-level preconditioner with stable coarse grid corrections for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 37(1):A221–A244, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[CWY17]

Chow:2017:CCU

Yat Tin Chow, Tianyu Wu, and Wotao Yin. Cyclic coordinate-update algorithms for fixed-point problems: Analysis and applications. *SIAM Journal on Scientific Computing*, 39(4):A1280–A1300, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cai:2023:BTB

[CWY23]

Zhenning Cai, Geshuo Wang, and Siyao Yang. The bold–thin–bold diagrammatic Monte Carlo method for open quantum systems. *SIAM Journal on Scientific Computing*, 45(4):A1812–A1843, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1499297>.

Chen:2007:AMM

[CWZ07]

Zhiming Chen, Long Wang, and Weiyang Zheng. An adaptive multilevel method for time-harmonic Maxwell equations with singularities. *SIAM Journal on Scientific Computing*, 29(1):118–138, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Coleman:2008:FSN

[CX08]

Thomas F. Coleman and Wei Xu. Fast (structured) Newton

computations. *SIAM Journal on Scientific Computing*, 31(2):1175–1191, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2010:LBT

[CXY10] Xiaojun Chen, Fengmin Xu, and Yinyu Ye. Lower bound theory of nonzero entries in solutions of ℓ_2 - ℓ_p minimization. *SIAM Journal on Scientific Computing*, 32(5):2832–2852, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2021:SIS

[CYDK21] Xiaoli Chen, Liu Yang, Jinqiao Duan, and George Em Karniadakis. Solving inverse stochastic problems from discrete particle observations using the Fokker–Planck equation and physics-informed neural networks. *SIAM Journal on Scientific Computing*, 43(3):B811–B830, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Cho:2015:APU

[CYVK15] H. Cho, X. Yang, D. Venturi, and G. E. Karniadakis. Algorithms for propagating uncertainty across heterogeneous domains. *SIAM Journal on Scientific Computing*, 37(6):A3030–A3054, 2015. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Chen:2017:SOL

[CZY17] Rui Chen, Xiaofeng Yang, and Hui Zhang. Second order, linear, and unconditionally energy stable schemes for a hydrodynamic model of smectic-A liquid crystals. *SIAM Journal on Scientific Computing*, 39(6):A2808–A2833, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Casulli:2010:NNT

[CZ10] Vincenzo Casulli and Paola Zanolli. A nested Newton-type algorithm for finite volume methods solving Richards’ equation in mixed form. *SIAM Journal on Scientific Computing*, 32(4):2255–2273, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Chen:2013:IPS

[CZ13] Jianbing Chen and Shenghan Zhang. Improving point selection in cubature by a new discrepancy. *SIAM Journal on Scientific Computing*, 35(5):A2121–A2149, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [CZ22] **Cheng:2022:BPP** Jian Cheng and Fan Zhang. A bound-preserving and positivity-preserving path-conservative discontinuous Galerkin method for solving five-equation model of compressible two-medium flows. *SIAM Journal on Scientific Computing*, 44(4): B1195–B1220, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1444497>.
- [CZK15a] **Cao:2015:NMS** Wanrong Cao, Zhongqiang Zhang, and George Em Karniadakis. Numerical methods for stochastic delay differential equations via the Wong–Zakai approximation. *SIAM Journal on Scientific Computing*, 37(1):A295–A318, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CZK15b] **Cao:2015:TSS** Wanrong Cao, Zhongqiang Zhang, and George Em Karniadakis. Time-splitting schemes for fractional differential equations I: Smooth solutions. *SIAM Journal on Scientific Computing*, 37(4): A1752–A1776, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [CZZK16] **Cao:2016:IED** Wanrong Cao, Fanhai Zeng, Zhongqiang Zhang, and George Em Karniadakis. Implicit-explicit difference schemes for nonlinear fractional differential equations with nonsmooth solutions. *SIAM Journal on Scientific Computing*, 38(5):A3070–A3093, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [D’A00] **DAzevedo:2000:BQB** E. F. D’Azevedo. Are bilinear quadrilaterals better than linear triangles? *SIAM Journal on Scientific Computing*, 22(1):198–217, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30406>.
- [DAE02] **Doha:2002:ESG** Eid H. Doha and Waleed M. Abd-Elhameed. Efficient spectral-Galerkin algorithms for direct solution of second-order equations using ultraspherical polynomials. *SIAM Journal on Scientific Computing*, 24(2):548–571, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37893>.

- [Dar21] **Darian:2021:ICV**
 Hossein Mahmoodi Darian. Investigation of C++ variadic templates for numerical methods and finite difference schemes. *SIAM Journal on Scientific Computing*, 43(1): C89–C125, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DARG13] **Demidov:2013:PCO**
 Denis Demidov, Karsten Ahnert, Karl Rupp, and Peter Gottschling. Programming CUDA and OpenCL: a case study using modern C++ libraries. *SIAM Journal on Scientific Computing*, 35(5): C453–C472, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Dax93] **Dax:1993:RRM**
 Achiya Dax. On row relaxation methods for large constrained least squares problems. *SIAM Journal on Scientific Computing*, 14(3): 570–584, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Dax03] **Dax:2003:MIR**
 Achiya Dax. A modified iterative refinement scheme. *SIAM Journal on Scientific Computing*, 25(4):1199–1213, July 2003. CO-
- [Day98] **Dayar:1998:SSO**
 Tugrul Dayar. State space orderings for Gauss–Seidel in Markov chains revisited. *SIAM Journal on Scientific Computing*, 19(1):148–154, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40905>.
- [DB94] **Dieci:1994:SSA**
 Luca Dieci and Georg Bader. Solution of the systems associated with invariant tori approximation. II: Multigrid methods. *SIAM Journal on Scientific Computing*, 15(6): 1375–1400, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DB98] **Davey:1998:GSM**
 K. Davey and S. Bounds. A generalized SOR method for dense linear systems of boundary element equations. *SIAM Journal on Scientific Computing*, 19(3): 953–967, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- epubs.siam.org/sam-bin/dbq/article/28809.
- [DB07] **Duraisamy:2007:ISH** Karthikeyan Duraisamy and James D. Baeder. Implicit scheme for hyperbolic conservation laws using nonoscillatory reconstruction in space and time. *SIAM Journal on Scientific Computing*, 29(6):2607–2620, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DBA19] **Driggs:2019:ARL** Derek Driggs, Stephen Becker, and Aleksandr Aravkin. Adapting regularized low-rank models for parallel architectures. *SIAM Journal on Scientific Computing*, 41(1):A163–A189, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DBC13] **Dahiya:2013:CFM** D. Dahiya, S. Baskar, and F. Coulouvrat. Characteristic fast marching method for monotonically propagating fronts in a moving medium. *SIAM Journal on Scientific Computing*, 35(4):A1880–A1902, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dBMZ11] **dAvezac:2011:LPP** Mayeul d’Avezac, Ryan Botts, Martin J. Mohlenkamp, and Alex Zunger. Learning to predict physical properties using sums of separable functions. *SIAM Journal on Scientific Computing*, 33(6):3381–3401, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3381_s1.
- [DBSR17] **Dumbser:2017:CWE** Michael Dumbser, Walter Boscheri, Matteo Semplice, and Giovanni Russo. Central weighted ENO schemes for hyperbolic conservation laws on fixed and moving unstructured meshes. *SIAM Journal on Scientific Computing*, 39(6):A2564–A2591, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DCB22] **Donello:2022:CSE** Michael Donello, Mark H. Carpenter, and Hessam Babae. Computing sensitivities in evolutionary systems: A real-time reduced order modeling strategy. *SIAM Journal on Scientific Computing*, 44(1):A128–A149, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1388565>.

- [dCFC20] **deCarvalho:2020:NSN** Pitágoras P. de Carvalho and Enrique Fernández-Cara. Numerical Stackelberg–Nash control for the heat equation. *SIAM Journal on Scientific Computing*, 42(5): A2678–A2700, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DCSO10] **Dong:2010:NMR** Bin Dong, Aichi Chien, Zuowei Shen, and Stanley Osher. A new multiscale representation for shapes and its application to blood vessel recovery. *SIAM Journal on Scientific Computing*, 32(4): 1724–1739, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DCL+21] **Duan:2021:SPN** Chenghua Duan, Wenbin Chen, Chun Liu, Xingye Yue, and Shenggao Zhou. Structure-preserving numerical methods for nonlinear Fokker–Planck equations with nonlocal interactions by an energetic variational approach. *SIAM Journal on Scientific Computing*, 43(1): B82–B107, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DD00] **DeAlmeida:2000:CSC** Valmor F. De Almeida and Jeffrey J. Derby. Construction of solution curves for large two-dimensional problems of steady-state flows of incompressible fluids. *SIAM Journal on Scientific Computing*, 22(1):285–311, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33451>.
- [DCP11] **Dubois:2011:AER** Jérôme Dubois, Christophe Calvin, and Serge Petiton. Accelerating the explicitly restarted Arnoldi method with GPUs using an auto-tuned matrix vector product. *SIAM Journal on Scientific Computing*, 33(5):3010–3019, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p3010_s1
- [DD12] **Deng:2012:FTM** Quan Deng and Tobin A. Driscoll. A fast treecode for multiquadric interpolation with varying shape parameters. *SIAM Journal on Scientific Computing*, 34(2): A1126–A1140, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DD13] **Davies:2013:CTA**
 Penny J. Davies and Dugald B. Duncan. Convolution-in-time approximations of time domain boundary integral equations. *SIAM Journal on Scientific Computing*, 35(1): B43–B61, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DD23] **D'Ambrosio:2023:LTA**
 Raffaele D'Ambrosio and Stefano Di Giovacchino. Long-term analysis of stochastic Hamiltonian systems under time discretizations. *SIAM Journal on Scientific Computing*, 45(2):A257–A288, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1458612>.
- [dDBV14] **deDios:2014:CPS**
 B. Ayuso de Dios, A. T. Barker, and P. S. Vassilevski. A combined preconditioning strategy for nonsymmetric systems. *SIAM Journal on Scientific Computing*, 36(6): A2533–A2556, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DDE⁺20] **Dunbar:2020:RBP**
 Oliver R. A. Dunbar, Matthew M. Dunlop, Charles M. Elliott, Viet Ha Hoang, and Andrew M. Stuart. Reconciling Bayesian and perimeter regularization for binary inversion. *SIAM Journal on Scientific Computing*, 42(4): A1984–A2013, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DDF00] **Demmel:2000:CCO**
 J. W. Demmel, L. Dieci, and M. J. Friedman. Computing connecting orbits via an improved algorithm for continuing invariant subspaces. *SIAM Journal on Scientific Computing*, 22(1):81–94, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34486>.
- [DDF21a] **D'Ambra:2021:APL**
 Pasqua D'Ambra, Fabio Durastante, and Salvatore Filippone. AMG preconditioners for linear solvers towards extreme scale. *SIAM Journal on Scientific Computing*, 43(5):S679–S703, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DDF⁺21b] **Das:2021:PCA**
 Swapnil Das, James Demmel, Kimon Fountoulakis, Laura Grigori, Michael W. Mahoney, and Shenghao Yang. Parallel and communication

- avoiding least angle regression. *SIAM Journal on Scientific Computing*, 43(2):C154–C176, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DDGS16] **Deiterding:2016:CAM** [De 12a] Ralf Deiterding, Margarete O. Domingues, Sônia M. Gomes, and Kai Schneider. Comparison of adaptive multiresolution and adaptive mesh refinement applied to simulations of the compressible Euler equations. *SIAM Journal on Scientific Computing*, 38(5):S173–S193, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DDMQ18] **DalSanto:2018:MSR** [De 12b] Niccolò Dal Santo, Simone Deparis, Andrea Manzoni, and Alfio Quarteroni. Multi space reduced basis preconditioners for large-scale parametrized PDEs. *SIAM Journal on Scientific Computing*, 40(2):A954–A983, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [de 99] **deAlmeida:1999:DDM** [DEC05] Valmor F. de Almeida. Domain deformation mapping: Application to variational mesh generation. *SIAM Journal on Scientific Computing*, 20(4):1252–1275, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27476>.
- DeSterck:2012:NGO** H. De Sterck. A nonlinear GMRES optimization algorithm for canonical tensor decomposition. *SIAM Journal on Scientific Computing*, 34(3):A1351–A1379, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DeSterck:2012:SLA** Hans De Sterck. A self-learning algebraic multigrid method for extremal singular triplets and eigenpairs. *SIAM Journal on Scientific Computing*, 34(4):A2092–A2117, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DiBenedetto:2005:SPC** Fabio Di Benedetto, Claudio Estatico, and Stefano Serra Capizzano. Superoptimal preconditioned conjugate gradient iteration for image deblurring. *SIAM Journal on Scientific Computing*, 26(3):1012–1035, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42165>.

- [Ded10] **Dede:2010:RBM**
Luca Dedè. Reduced basis method and a posteriori error estimation for parametrized linear-quadratic optimal control problems. *SIAM Journal on Scientific Computing*, 32(2):997–1019, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Del14] **Dellar:2014:LBF**
Paul J. Dellar. Lattice Boltzmann formulation for linear viscoelastic fluids using an abstract second stress. *SIAM Journal on Scientific Computing*, 36(6):A2507–A2532, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DEM⁺20] **DeMarchi:2020:SDI**
S. De Marchi, W. Erb, F. Marchetti, E. Perracchione, and M. Rossini. Shape-driven interpolation with discontinuous kernels: Error analysis, edge extraction, and applications in magnetic particle imaging. *SIAM Journal on Scientific Computing*, 42(2):B472–B491, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Den97a] **Dendy:1997:RSF**
J. E. Dendy, Jr. Revenge of the semicoarsening frequency decomposition multi-grid method. *SIAM Journal on Scientific Computing*, 18(2):430–440, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27809>.
- [Den97b] **Deng:1997:TCA**
Qingping Deng. Timely communication: An analysis for a nonoverlapping domain decomposition iterative procedure. *SIAM Journal on Scientific Computing*, 18(5):1517–1525, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28679>.
- [DEN21] **Dai:2021:HPW**
Dihan Dai, Yekaterina Epshteyn, and Akil Narayan. Hyperbolicity-preserving and well-balanced stochastic Galerkin method for shallow water equations. *SIAM Journal on Scientific Computing*, 43(2):A929–A952, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DEP11] **Doyen:2011:TIS**
David Doyen, Alexandre Ern, and Serge Piperno. Time-integration schemes for the finite element dynamic Signorini problem.

- SIAM Journal on Scientific Computing*, 33(1):223–249, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p223_s1. [DF03]
- Dercole:2008:BAD**
- [Der08] Fabio Dercole. BPCONT: An auto driver for the continuation of branch points of algebraic and boundary-value problems. *SIAM Journal on Scientific Computing*, 30(5):2405–2426, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dolejsi:2016:ADP**
- [DEV16] Vít Dolejší, Alexandre Ern, and Martin Vohralík. *hp*-adaptation driven by polynomial-degree-robust *A Posteriori* error estimates for elliptic problems. *SIAM Journal on Scientific Computing*, 38(5):A3220–A3246, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Driscoll:1999:BPM**
- [DF99] Tobin A. Driscoll and Bengt Fornberg. Block pseudospectral methods for Maxwell’s equations II: Two-dimensional, discontinuous-coefficient case. *SIAM Journal on Scientific Computing*, 21(3):1146–1167, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33320>.
- Durand:2003:RWC**
- Sylvain Durand and Jacques Froment. Reconstruction of wavelet coefficients using total variation minimization. *SIAM Journal on Scientific Computing*, 24(5):1754–1767, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39779>.
- Delzanno:2010:GMK**
- G. L. Delzanno and J. M. Finn. Generalized Monge–Kantorovich optimization for grid generation and adaptation in L_p . *SIAM Journal on Scientific Computing*, 32(6):3524–3547, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3524_s1.
- Desiderio:2020:EST**
- Luca Desiderio and Silvia Falletta. Efficient solution of two-dimensional wave propagation problems by CQ-wavelet BEM: Algorithm and applications. *SIAM Journal on Scientific Computing*, 42(4):B894–B920, 2020.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dupuy:2021:ISS

[DF21]

Mi-Song Dupuy and Gero Friesecke. Inversion symmetry of singular values and a new orbital ordering method in tensor train approximations for quantum chemistry. *SIAM Journal on Scientific Computing*, 43(1):B108–B131, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Devarakonda:2019:ACP

[DFDM19]

Aditya Devarakonda, Kimon Fountoulakis, James Demmel, and Michael W. Mahoney. Avoiding communication in primal and dual block coordinate descent methods. *SIAM Journal on Scientific Computing*, 41(1):C1–C27, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dassios:2015:PPD

[DFG15]

Ioannis Dassios, Kimon Fountoulakis, and Jacek Gondzio. A preconditioner for a primal-dual Newton conjugate gradient method for compressed sensing problems. *SIAM Journal on Scientific Computing*, 37(6):A2783–A2812, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[DFH⁺19]

Diffenderfer:2019:EAZ

James Diffenderfer, Alyson L. Fox, Jeffrey A. Hittinger, Geoffrey Sanders, and Peter G. Lindstrom. Error analysis of ZFP compression for floating-point data. *SIAM Journal on Scientific Computing*, 41(3):A1867–A1898, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dokken:2019:SOU

[DFJS19]

Jørgen S. Dokken, Simon W. Funke, August Johansson, and Stephan Schmidt. Shape optimization using the finite element method on multiple meshes with Nitsche coupling. *SIAM Journal on Scientific Computing*, 41(3):A1923–A1948, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sterck:2023:FMR

[DFK23]

Hans De Sterck, Robert D. Falgout, and Oliver A. Krzysik. Fast multigrid reduction-in-time for advection via modified semi-Lagrangian coarse-grid operators. *SIAM Journal on Scientific Computing*, 45(4):A1890–A1916, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1486522>.

- [dFL05] **dHalluin:2005:SLA**
 Y. d’Halluin, P. A. Forsyth, and G. Labahn. A semi-Lagrangian approach for American Asian options under jump diffusion. *SIAM Journal on Scientific Computing*, 27(1):315–345, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60263>.
- [DFL20] **Dong:2020:FFM**
 Baiying Dong, Xiufang Feng, and Zhilin Li. An FE-FD method for anisotropic elliptic interface problems. *SIAM Journal on Scientific Computing*, 42(4):B1041–B1066, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DFN12] **Diaz:2012:CCF**
 M. J. Castro Díaz and E. Fernández-Nieto. A class of computationally fast first order finite volume solvers: PVM methods. *SIAM Journal on Scientific Computing*, 34(4):A2173–A2196, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DFQ14] **Deparis:2014:RLR**
 Simone Deparis, Davide Forti, and Alfio Quarteroni. A rescaled localized radial basis function interpolation on non-Cartesian and nonconforming grids. *SIAM Journal on Scientific Computing*, 36(6):A2745–A2762, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DFS17] **Dassi:2017:NSR**
 Franco Dassi, Patricio Farrell, and Hang Si. A novel surface remeshing scheme via radial basis functions and higher-dimensional embedding. *SIAM Journal on Scientific Computing*, 39(3):B522–B547, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DFW21] **Drake:2021:PUM**
 Kathryn P. Drake, Edward J. Fuselier, and Grady B. Wright. A partition of unity method for divergence-free or curl-free radial basis function approximation. *SIAM Journal on Scientific Computing*, 43(3):A1950–A1974, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DFW22] **Drake:2022:ISR**
 Kathryn P. Drake, Edward J. Fuselier, and Grady B. Wright. Implicit surface reconstruction with a curl-free radial basis function partition of unity method. *SIAM Journal on Scientific Computing*, 44(5):A3018–A3040,

???? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1474485>.

Desbat:1995:MRE

[DG95]

L. Desbat and D. Girard. The “minimum reconstruction error” choice of regularization parameters: some more efficient methods and their application to deconvolution problems. *SIAM Journal on Scientific Computing*, 16(6):1387–1403, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Deang:1998:IRL

[DG98]

Jennifer M. Deang and Max D. Gunzburger. Issues related to least-squares finite element methods for the Stokes equations. *SIAM Journal on Scientific Computing*, 20(3):878–906, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29452>.

Du:1999:NAL

[DG99]

Qiang Du and Paul Gray. Numerical algorithms of the Lawrence–Doniach model for layered superconductors and their parallel implementation. *SIAM Journal on Scientific Computing*, 20(6):2122–2139, November 1999.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31156>.

Diaz:2009:ECE

[DG09]

Julien Diaz and Marcus J. Grote. Energy conserving explicit local time stepping for second-order wave equations. *SIAM Journal on Scientific Computing*, 31(3):1985–2014, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Drmac:2016:NSO

[DG16]

Zlatko Drmac and Serkan Gugercin. A new selection operator for the discrete empirical interpolation method — improved a priori error bound and extensions. *SIAM Journal on Scientific Computing*, 38(2):A631–A648, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Denker:2017:EDP

[DG17a]

Dennis Denker and Anne Gelb. Edge detection of piecewise smooth functions from undersampled Fourier data using variance signatures. *SIAM Journal on Scientific Computing*, 39(2):A559–A592, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DG17b] **Duersch:2017:RCP**
 Jed A. Duersch and Ming Gu. Randomized QR with column pivoting. *SIAM Journal on Scientific Computing*, 39(4): C263–C291, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DG20] **Dong:2020:PPP**
 Guozhi Dong and Hailong Guo. Parametric polynomial preserving recovery on manifolds. *SIAM Journal on Scientific Computing*, 42(3): A1885–A1912, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGB15a] **Drmac:2015:QBV**
 Z. Drmac, S. Gugercin, and C. Beattie. Quadrature-based vector fitting for discretized \mathcal{H}_∞ approximation. *SIAM Journal on Scientific Computing*, 37(2):A625–A652, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGB15b] **Drmac:2015:VFM**
 Z. Drmac, S. Gugercin, and C. Beattie. Vector fitting for matrix-valued rational approximation. *SIAM Journal on Scientific Computing*, 37(5):A2346–A2379, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGGG09] **Dolean:2009:OSM**
 V. Dolean, M. J. Gander, and L. Gerardo-Giorda. Optimized Schwarz methods for Maxwell’s equations. *SIAM Journal on Scientific Computing*, 31(3):2193–2213, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGHL12] **Demmel:2012:COP**
 James Demmel, Laura Grigori, Mark Hoemmen, and Julien Langou. Communication-optimal parallel and sequential QR and LU factorizations. *SIAM Journal on Scientific Computing*, 34(1): A206–A239, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA206_s1.
- [DGJ03] **Du:2003:CCV**
 Qiang Du, Max D. Gunzburger, and Lili Ju. Constrained centroidal Voronoi tessellations for surfaces. *SIAM Journal on Scientific Computing*, 24(5):1488–1506, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39157>.
- [DGK98] **Druskin:1998:UNL**
 V. Druskin, A. Greenbaum, and L. Knizhnerman. Us-

- ing nonorthogonal Lanczos vectors in the computation of matrix functions. *SIAM Journal on Scientific Computing*, 19(1):38–54, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30366>.
- [DGK⁺16] **Dolean:2016:NPH** [DGL⁺12] V. Dolean, M. J. Gander, W. Kheriji, F. Kwok, and R. Masson. Nonlinear preconditioning: How to use a nonlinear Schwarz method to precondition Newton’s method. *SIAM Journal on Scientific Computing*, 38(6):A3357–A3380, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGK21] **Dong:2021:GAD** [DGLL21] Zhaonan Dong, Emmanuil H. Georgoulis, and Thomas Kappas. GPU-accelerated discontinuous Galerkin methods on polytopic meshes. *SIAM Journal on Scientific Computing*, 43(4):C312–C334, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGK23] **Dolean:2023:CFO** [DGLW16] Victorita Dolean, Martin J. Gander, and Alexandros Kyrakis. Closed form optimized transmission conditions for complex diffusion with many subdomains. *SIAM Journal on Scientific Computing*, 45(2):A829–A848, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1492386>.
- Dubois:2012:OSM** Olivier Dubois, Martin J. Gander, Sébastien Loisel, Amik St-Cyr, and Daniel B. Szyld. The optimized Schwarz method with a coarse grid correction. *SIAM Journal on Scientific Computing*, 34(1):A421–A458, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DeCaria:2021:VSV** Victor DeCaria, Ahmet Guzel, William Layton, and Yi Li. A variable stepsize, variable order family of low complexity. *SIAM Journal on Scientific Computing*, 43(3):A2130–A2160, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Don:2016:HCW** Wai-Sun Don, Zhen Gao, Peng Li, and Xiao Wen. Hybrid compact-WENO finite difference scheme with conjugate Fourier shock detection algorithm for hyperbolic con-

- ervation laws. *SIAM Journal on Scientific Computing*, 38(2):A691–A711, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DGRZ15]
- [DGP10] Veselin Dobrev, Jean-Luc Guermond, and Bojan Popov. Surface reconstruction and image enhancement via L^1 -minimization. *SIAM Journal on Scientific Computing*, 32(3):1591–1616, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dobrev:2010:SRI**
- [DGP18] Krzysztof Domino, Piotr Gawron, and Lukasz Pawela. Efficient computation of higher-order cumulant tensors. *SIAM Journal on Scientific Computing*, 40(3):A1590–A1610, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Domino:2018:ECH**
- [DGR⁺17] D. Drzisga, B. Gmeiner, U. Rüde, R. Scheichl, and B. Wohlmuth. Scheduling massively parallel multigrid for multilevel Monte Carlo methods. *SIAM Journal on Scientific Computing*, 39(5):S873–S897, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Drzisga:2017:SMP**
- [Duff:2015:ABC] Iain S. Duff, Ronan Guivarch, Daniel Ruiz, and Mohamed Zenadi. The augmented block Cimmino distributed method. *SIAM Journal on Scientific Computing*, 37(3):A1248–A1269, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DGS08] Sonjoy Das, Roger Ghanem, and James C. Spall. Asymptotic sampling distribution for polynomial chaos representation from data: a maximum entropy and Fisher information approach. *SIAM Journal on Scientific Computing*, 30(5):2207–2234, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Das:2008:ASD**
- [DGSW10] H. Sue Dollar, Nicholas I. M. Gould, Martin Stoll, and Andrew J. Wathen. Preconditioning saddle-point systems with applications in optimization. *SIAM Journal on Scientific Computing*, 32(1):249–270, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dollar:2010:PSP**
- [DGvdZ18] Robert Dyja, Baskar Ganapathysubramanian, and Kristof

fer G. van der Zee. Parallel-in-space-time, adaptive finite element framework for nonlinear parabolic equations. *SIAM Journal on Scientific Computing*, 40(3):C283–C304, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DH16]

Desideri:1995:CAD

[DH95] J.-A. Désidéri and P. W. Hemker. Convergence analysis of the defect-correction iteration for hyperbolic problems. *SIAM Journal on Scientific Computing*, 16(1):88–118, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Day:2001:SCV

[DH01] David Day and Michael A. Heroux. Solving complex-valued linear systems via equivalent real formulations. *SIAM Journal on Scientific Computing*, 23(2):480–498, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37226>. [DH21]

Demmel:2003:AEF

[DH03] James Demmel and Yozo Hida. Accurate and efficient floating point summation. *SIAM Journal on Scientific Computing*, 25(4):

1214–1248, July 5, 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40762>.

DeSterck:2016:NPO

Hans De Sterck and Alexander Howse. Nonlinearly preconditioned optimization on Grassmann manifolds for computing approximate Tucker tensor decompositions. *SIAM Journal on Scientific Computing*, 38(2):A997–A1018, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

DeSterck:2021:ALC

Hans De Sterck and Yunhui He. On the asymptotic linear convergence speed of Anderson acceleration, Nesterov acceleration, and nonlinear GMRES. *SIAM Journal on Scientific Computing*, 43(5):S21–S46, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Drosson:2013:SBR

[DHE13] Marcus Drosson, Koen Hillewaert, and Jean-André Esers. Stability and boundary resolution analysis of the discontinuous Galerkin method applied to the Reynolds-averaged Navier–Stokes equations using the Spalart–

- Allmaras model. *SIAM Journal on Scientific Computing*, 35(3):B666–B700, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHHR09] James W. Demmel, Mark Hoemmen, Yozo Hida, and E. Jason Riedy. Nonnegative diagonals and high performance on low-profile matrices from Householder QR. *SIAM Journal on Scientific Computing*, 31(4):2832–2841, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHL20] **Demmel:2009:NDH**
- [DHHR19] Yiqiu Dong, Per Christian Hansen, Michiel E. Hochstenbach, and Nicolai André Brogaard Riis. Fixing non-convergence of algebraic iterative reconstruction with an unmatched backprojector. *SIAM Journal on Scientific Computing*, 41(3):A1822–A1839, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHL21] **Dong:2019:FNA**
- [DHL+23] **Deuffhard:2008:ADG**
- [DHJW08] P. Deuffhard, W. Huisinga, T. Jahnke, and M. Wulkow. Adaptive discrete Galerkin methods applied to the chemical master equation. *SIAM Journal on Scientific Computing*, 30(6):2990–3011, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Duff:2020:NSS**
- [DHL20] Iain Duff, Jonathan Hogg, and Florent Lopez. A new sparse LDL^T solver using a posteriori threshold pivoting. *SIAM Journal on Scientific Computing*, 42(2):C23–C42, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DeCaria:2021:ANI**
- [DHL21] Victor P. DeCaria, Cory D. Hauck, and Ming Tse P. Laiu. Analysis of a new implicit solver for a semiconductor model. *SIAM Journal on Scientific Computing*, 43(3):B733–B758, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dellnitz:2023:ETS**
- [DHL+23] Michael Dellnitz, Eyke Hüllermeier, Marvin Lücke, Sina Oberblöbaum, Christian Offen, Sebastian Peitz, and Karlsson Pfannschmidt. Efficient time-stepping for numerical integration using reinforcement learning. *SIAM Journal on Scientific Computing*, 45(2):A579–A595, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1412682>.

- [DHM22] **Dirckx:2022:FEB** Simon Dirckx, Daan Huybrechs, and Karl Meerbergen. Frequency extraction for BEM matrices arising from the 3D scalar Helmholtz equation. *SIAM Journal on Scientific Computing*, 44(5): B1282–B1311, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1382957>.
- [DHO12] **Drohmann:2012:RBA** Martin Drohmann, Bernard Haasdonk, and Mario Ohlberger. Reduced basis approximation for nonlinear parametrized evolution equations based on empirical operator interpolation. *SIAM Journal on Scientific Computing*, 34(2): A937–A969, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHP17] **Pietro:2023:AMP** Daniele A. Di Pietro, Frank Hülsemann, Pierre Matalon, Paul Mycek, and Ulrich Rüde. Algebraic multigrid preconditioner for statically condensed systems arising from lowest-order hybrid discretizations. *SIAM Journal on Scientific Computing*, 45(3):S329–S350, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1429849>.
- [DHPAH19] **Dolz:2017:MBS** J. Dölz, H. Harbrecht, and M. D. Peters. \mathcal{H} -matrix based second moment analysis for rough random fields and finite element discretizations. *SIAM Journal on Scientific Computing*, 39(4): B618–B639, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHN17] **DeLoera:2017:SKM** Jesús A. De Loera, Jamie Haddock, and Deanna Needell. A sampling Kaczmarz–Motzkin algorithm for linear feasibility. *SIAM Journal on Scientific Computing*, 39(5): S66–S87, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHS22] **Dobrian:2019:AAV** Florin Dobrian, Mahantesh Halappanavar, Alex Pothén, and Ahmed Al-Herz. A 2/3-approximation algorithm for vertex weighted matching in bipartite graphs. *SIAM Journal on Scientific Computing*, 41(1):A566–A591, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHS22] **Dahlke:2022:WBA** Stephan Dahlke, Helmut Harbrecht, and Thomas M.

- Surowiec. A wavelet-based approach for the simulation and optimal control of NonLocal operator equations. *SIAM Journal on Scientific Computing*, 44(4): A2691–A2708, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1350790>. [Di 97]
- [DHZ⁺21] Yi-Shu Du, Ken Hayami, Ning Zheng, Keiichi Morikuni, and Jun-Feng Yin. Kaczmarz-type inner-iteration preconditioned flexible GMRES methods for consistent linear systems. *SIAM Journal on Scientific Computing*, 43(5): S345–S366, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DHZZ18] Qiang Du, Houde Han, Jiwei Zhang, and Chunxiong Zheng. Numerical solution of a two-dimensional nonlocal wave equation on unbounded domains. *SIAM Journal on Scientific Computing*, 40(3): A1430–A1445, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Di 95] Fabio Di Benedetto. Analysis of preconditioning techniques for ill-conditioned Toeplitz matrices. *SIAM Journal on Scientific Computing*, 16(3): 682–697, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DiBenedetto:1997:PBT**
- Fabio Di Benedetto. Preconditioning of block Toeplitz matrices by sine transforms. *SIAM Journal on Scientific Computing*, 18(2):499–515, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25833>.
- Dennis:2007:AAM**
- J. M. Dennis and E. R. Jesup. Applying automated memory analysis to improve iterative algorithms. *SIAM Journal on Scientific Computing*, 29(5):2210–2223, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DJ07] J. M. Dennis and E. R. Jesup. Applying automated memory analysis to improve iterative algorithms. *SIAM Journal on Scientific Computing*, 29(5):2210–2223, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Du:2021:KTI**
- [DHLZ96] Qiang Du, Ming Jin, T. Y. Li, and Z. Zeng. Quasi-Laguerre iteration in solving symmetric tridiagonal eigenvalue problems. *SIAM Journal on Scientific Computing*, 17(6): 1347–1368, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25833>.
- Du:2018:NST**
- DiBenedetto:1995:APT**

/epubs.siam.org/sam-bin/dbq/article/27322.

DeSterck:2016:SST

- [DJM16] Hans De Sterck, Chris Johnson, and Lois Curfman McInnes. Special section on two themes: CSE software and big data in CSE. *SIAM Journal on Scientific Computing*, 38(5):S1–S2, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Davis:2023:ISE

- [DJMR23] Lisa Davis, William Johns, Lucas Monzón, and Matthew Reynolds. Iterative stability enforcement in adaptive Antoulas–Anderson algorithms for \mathcal{H}_ϵ model reduction. *SIAM Journal on Scientific Computing*, 45(4):A1844–A1861, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1467043>.

Degond:2000:NDE

- [DJP00] Pierre Degond, Ansgar Jüngel, and Paola Pietra. Numerical discretization of energy-transport models for semiconductors with nonparabolic band structure. *SIAM Journal on Scientific Computing*, 22(3):986–1007, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27322>.

/epubs.siam.org/sam-bin/dbq/article/36097.

Degond:2008:TSS

- [DJT08] Pierre Degond, Shi Jin, and Min Tang. On the time splitting spectral method for the complex Ginzburg–Landau equation in the large time and space scale limit. *SIAM Journal on Scientific Computing*, 30(5):2466–2487, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dupont:1998:SPF

- [DK98] Todd F. Dupont and Philip T. Keenan. Superconvergence and postprocessing of fluxes from lowest-order mixed methods on triangles and tetrahedra. *SIAM Journal on Scientific Computing*, 19(4):1322–1332, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28041>.

De-kang:2000:TFT

- [Dk00] Mao De-kang. Toward front tracking based on conservation in two space dimensions. *SIAM Journal on Scientific Computing*, 22(1):113–151, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31060>.

- [DK03] Miguel A. Dumett and James P. Keener. An immersed interface method for solving anisotropic elliptic boundary value problems in three dimensions. *SIAM Journal on Scientific Computing*, 25(1):348–367, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dumett:2003:IIM**
- [DKDH20] Ashok Das, Jitendra Kumar, Maksym Dosta, and Stefan Heinrich. On the approximate solution and modeling of the kernel of nonlinear breakage population balance equation. *SIAM Journal on Scientific Computing*, 42(6):B1570–B1598, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Das:2020:ASM**
- [DK10] Ionut Danaila and Parimah Kazemi. A new Sobolev gradient method for direct minimization of the Gross–Pitaevskii energy with rotation. *SIAM Journal on Scientific Computing*, 32(5):2447–2467, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Danaila:2010:NSG**
- [DKGS15] Josef Dick, Frances Y. Kuo, Quoc T. Le Gia, and Christoph Schwab. Fast QMC matrix–vector multiplication. *SIAM Journal on Scientific Computing*, 37(3):A1436–A1450, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dick:2015:FQM**
- [DK11] Thomas K. DeLillo and Everett H. Kropf. Numerical computation of the Schwarz–Christoffel transformation for multiply connected domains. *SIAM Journal on Scientific Computing*, 33(3):1369–1394, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1369_s1. **DeLillo:2011:NCS**
- [DKK⁺19] Veselin Dobrev, Patrick Knupp, Tzanio Kolev, Ketan Mittal, and Vladimir Tomov. The target-matrix optimization paradigm for high-order meshes. *SIAM Journal on Scientific Computing*, 41(1):B50–B68, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dobrev:2019:TMO**
- [DKK21] Sergey Dolgov, Dante Kalise, and Karl K. Kunisch. Tensor **Dolgov:2021:TDM**

- decomposition methods for high-dimensional Hamilton–Jacobi–Bellman equations. *SIAM Journal on Scientific Computing*, 43(3):A1625–A1650, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKKP14] Thomas Dickopf, Dorian Krause, Rolf Krause, and Mark Potse. Design and analysis of a lightweight parallel adaptive scheme for the solution of the monodomain equation. *SIAM Journal on Scientific Computing*, 36(2):C163–C189, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKM14a] **Dickopf:2014:DAL** Thomas Dickopf, Dorian Krause, Rolf Krause, and Mark Potse. Design and analysis of a lightweight parallel adaptive scheme for the solution of the monodomain equation. *SIAM Journal on Scientific Computing*, 36(2):C163–C189, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKM14b] **Dickopf:2014:DAL** Thomas Dickopf, Dorian Krause, Rolf Krause, and Mark Potse. Design and analysis of a lightweight parallel adaptive scheme for the solution of the monodomain equation. *SIAM Journal on Scientific Computing*, 36(2):C163–C189, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKL⁺19] **Dobrev:2019:AHS** V. Dobrev, T. Kolev, C. S. Lee, V. Tomov, and P. S. Vassilevski. Algebraic hybridization and static condensation with application to scalable $H(\text{div})$ preconditioning. *SIAM Journal on Scientific Computing*, 41(3):B425–B447, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKM14a] **DeLaChevrotiere:2014:CSM** Michèle De La Chevrotière, Boualem Khouider, and Andrew J. Majda. Calibration of the stochastic multi-cloud model using Bayesian inference. *SIAM Journal on Scientific Computing*, 36(3):B538–B560, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKPS17] **Dobrev:2017:TLC** V. A. Dobrev, Tz. Kolev, N. A. Petersson, and J. B. Schroder. Two-level convergence theory for multigrid reduction in time (MGRIT). *SIAM Journal on Scientific Computing*, 39(3):A1450–A1475, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKO12] **Dolgov:2012:FSP** S. V. Dolgov, B. N. Khoromskij, and I. V. Oseledets. Fast solution of parabolic problems in the tensor train/quantized tensor train format with initial application to the Fokker–Planck equation. *SIAM Journal on Scientific Computing*, 34(6):A3016–A3038, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKM14b] **Duru:2014:SHO** Kenneth Duru, Gunilla Kreiss, and Ken Mattsson. Stable and high-order accurate boundary treatments for the elastic wave equation on second-order form. *SIAM Journal on Scientific Computing*, 36(6):A2787–A2818, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DKS23] *Computing*, 39(5):S501–S527, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKR12] Veselin A. Dobrev, Tzanio V. Kolev, and Robert N. Rieben. High-order curvilinear finite element methods for Lagrangian hydrodynamics. *SIAM Journal on Scientific Computing*, 34(5):B606–B641, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKS21a] Sergey Dolgov, Daniel Kressner, and Christoph Strössner. Functional Tucker approximation using Chebyshev interpolation. *SIAM Journal on Scientific Computing*, 43(3):A2190–A2210, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKS21b] Urban Duh, Gregor Kosec, and Jure Slak. Fast variable density node generation on parametric surfaces with application to mesh-free methods. *SIAM Journal on Scientific Computing*, 43(2):A980–A1000, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKSW19] Jürgen Dölz, Stefan Kurz, Sebastian Schöps, and Felix Wolf. Isogeometric boundary elements in electromagnetism: Rigorous analysis, fast methods, and examples. *SIAM Journal on Scientific Computing*, 41(5):B983–B1010, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKW19] Daniel Drzisga, Brendan Keith, and Barbara Wohlmuth. The surrogate matrix methodology: a priori error estimation. *SIAM Journal on Scientific Computing*, 41(6):A3806–A3838, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DKXS18] Geoffrey Dillon, Vassilis
- Dolgov:2023:DDT**
- Sergey Dolgov, Dante Kalise, and Luca Saluzzi. Data-driven tensor train gradient cross approximation for Hamilton–Jacobi–Bellman equations. *SIAM Journal on Scientific Computing*, 45(5):A2153–A2184, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1498401>.
- Dolz:2019:IBE**
- Dobrev:2012:HOC**
- Duh:2021:FVD**
- Drzisga:2019:SMM**
- Dillon:2018:HLR**

- Kalantzis, Yuanzhe Xi, and Yousef Saad. A hierarchical low rank Schur complement preconditioner for indefinite linear systems. *SIAM Journal on Scientific Computing*, 40(4):A2234–A2252, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DL20a]
- [DKZ09] Vladimir Druskin, Leonid Knizhnerman, and Mikhail Zaslavsky. Solution of large scale evolutionary problems using rational Krylov subspaces with optimized shifts. *SIAM Journal on Scientific Computing*, 31(5):3760–3780, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DL17] M. J. Del Razo and R. J. LeVeque. Numerical methods for interface coupling of compressible and almost incompressible media. *SIAM Journal on Scientific Computing*, 39(3):B486–B507, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DL19] Kelsey L. DiPietro and Alan E. Lindsay. Adaptive solution to two-dimensional partial differential equations in curved domains using the Monge–Ampère equation. *SIAM Journal on Scientific Computing*, 41(2):A1331–A1356, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DL20a] Ricardo Delgado and Di Liu. A spectral algorithm for the time-dependent Kohn–Sham equations: Accurately treating external potentials based on frozen Gaussian approximations. *SIAM Journal on Scientific Computing*, 42(3):B656–B674, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DL20b] Zhifang Du and Jiequan Li. Accelerated piston problem and high order moving boundary tracking method for compressible fluid flows. *SIAM Journal on Scientific Computing*, 42(3):A1558–A1581, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DL22] Chang-En Du and Ching-Sung Liu. Newton–Noda iteration for computing the ground states of nonlinear Schrödinger equations. *SIAM Journal on Scientific Computing*, 44(4):A2370–A2385, 2022. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1435793>.

Ding:2023:HOE

[DL23]

Weiyang Ding and Jie Li. Higher order extended dynamic mode decomposition based on the structured total least squares. *SIAM Journal on Scientific Computing*, 45(2):A985–A1011, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1463665>.

Dayde:1997:EEP

[DLG97]

Michel J. Daydé, Jean-Yves L'Excellent, and Nicholas I. M. Gould. Element-by-element preconditioners for large partially separable optimization problems. *SIAM Journal on Scientific Computing*, 18(6):1767–1787, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27479>.

Descombes:2016:LID

[DLM16]

Stéphane Descombes, Stéphane Lanteri, and Ludovic Moya. Locally implicit discontinuous Galerkin time domain method for electromagnetic wave propagation in dispersive media applied to numerical dosimetry in biological

tissues. *SIAM Journal on Scientific Computing*, 38(5):A2611–A2633, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

DelBuono:2005:CEL

[DLP05]

N. Del Buono, L. Lopez, and R. Peluso. Computation of the exponential of large sparse skew-symmetric matrices. *SIAM Journal on Scientific Computing*, 27(1):278–293, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60075>.

Dumitrasc:2021:EAB

[DLP+21]

Andrei Dumitrasc, Philippe Leleux, Constantin Popa, Ulrich Ruede, and Daniel Ruiz. Extensions of the augmented block Cimmino method to the solution of full rank rectangular systems. *SIAM Journal on Scientific Computing*, 43(5):S516–S539, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

delaRiva:2019:RMS

Alvaro Pe de la Riva, Carmen Rodrigo, and Francisco J. Gaspar. A robust multigrid solver for isogeometric analysis based on multiplicative Schwarz smoothers. *SIAM Journal on Scientific Com-*

- puting*, 41(5):S321–S345, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dLRT09] **deLoubens:2009:EAA** [DLTZ06] Romain de Loubens, Amir Riaz, and Hamdi A. Tchelepi. Error analysis of an adaptive implicit scheme for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 31(4):2890–2914, ????. 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DLRT23] **Duff:2023:RRB** [DLV17] Iain Duff, Philippe Leleux, Daniel Ruiz, and F. Sukru Torun. Row replicated block Cimmino. *SIAM Journal on Scientific Computing*, 45(4):C207–C232, ????. 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1487710>.
- [DLTZ05] **Di:2005:MMF** [DLY14] Yana Di, Ruo Li, Tao Tang, and Pingwen Zhang. Moving mesh finite element methods for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 26(3):1036–1056, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60064>.
- Di:2006:MMM** [Di:2006:MMM] Yana Di, Ruo Li, Tao Tang, and Pingwen Zhang. Moving mesh methods for singular problems on a sphere using perturbed harmonic mappings. *SIAM Journal on Scientific Computing*, 28(4):1490–1508, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dimarco:2017:SNA** [Dimarco:2017:SNA] Giacomo Dimarco, Raphaël Loubère, and Marie-Hélène Vignal. Study of a new asymptotic preserving scheme for the Euler system in the low Mach number limit. *SIAM Journal on Scientific Computing*, 39(5):A2099–A2128, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Damle:2014:PES** [Damle:2014:PES] Anil Damle, Lin Lin, and Lexing Ying. Pole expansion for solving a type of parametrized linear systems in electronic structure calculations. *SIAM Journal on Scientific Computing*, 36(6):A2929–A2951, ????. 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DLY16] **Delgadillo:2016:GIF**
 Ricardo Delgadillo, Jianfeng Lu, and Xu Yang. Gauge-invariant frozen Gaussian approximation method for the Schrödinger equation with periodic potentials. *SIAM Journal on Scientific Computing*, 38(4):A2440–A2463, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DM13a]
- [DLY17] **Damle:2017:CLR**
 Anil Damle, Lin Lin, and Lexing Ying. Computing localized representations of the Kohn–Sham subspace via randomization and refinement. *SIAM Journal on Scientific Computing*, 39(6):B1178–B1198, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DM13b]
- [DLZ10] **Druskin:2010:ACS**
 Vladimir Druskin, Chad Lieberman, and Mikhail Zaslavsky. On adaptive choice of shifts in rational Krylov subspace reduction of evolutionary problems. *SIAM Journal on Scientific Computing*, 32(5):2485–2496, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DM16]
- [DLZZ17] **Dai:2017:CGM**
 Xiaoying Dai, Zhuang Liu, Liwei Zhang, and Aihui Zhou. A conjugate gradient method for electronic structure calculations. *SIAM Journal on Scientific Computing*, 39(6):A2702–A2740, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Dai:2013:SPT**
 Xiaoying Dai and Yvon Maday. Stable parareal in time method for first- and second-order hyperbolic systems. *SIAM Journal on Scientific Computing*, 35(1):A52–A78, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **DeSterck:2013:AAM**
 Hans De Sterck and Killian Miller. An adaptive algebraic multigrid algorithm for low-rank canonical tensor decomposition. *SIAM Journal on Scientific Computing*, 35(1):B1–B24, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Darup:2016:IAC**
 Moritz Schulze Darup and Martin Mönnigmann. Improved automatic computation of Hessian matrix spectral bounds. *SIAM Journal on Scientific Computing*, 38(4):A2068–A2090, ??? 2016. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Desvigne:2010:DNW

[DMBB10]

Damien Desvigne, Olivier Marsden, Christophe Bogey, and Christophe Bailly. Development of noncentered wavenumber-based optimized interpolation schemes with amplification control for overlapping grids. *SIAM Journal on Scientific Computing*, 32(4):2074–2098, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Duarte:2012:NRS

[DMD⁺12]

Max Duarte, Marc Massot, Stéphane Descombes, Christian Tenaud, Thierry Dumont, Violaine Louvet, and Frédérique Laurent. New resolution strategy for multiscale reaction waves using time operator splitting, space adaptive multiresolution, and dedicated high order implicit/explicit time integrators. *SIAM Journal on Scientific Computing*, 34(1):A76–A104, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA76_s1.

Goulart:2017:LRT

[dMGF17]

José Henrique de Morais Goulart and Gérard Favier. Low-rank tensor recovery using sequen-

tially optimal modal projections in iterative hard thresholding (SeMPIHT). *SIAM Journal on Scientific Computing*, 39(3):A860–A889, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

duMerle:2000:IPA

[dMHJM00]

O. du Merle, P. Hansen, B. Jaumard, and N. Mladenovic. An interior point algorithm for minimum sum-of-squares clustering. *SIAM Journal on Scientific Computing*, 21(4):1485–1505, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32832>.

DeSterck:2008:MAA

[DMM⁺08]

H. De Sterck, Thomas A. Manteuffel, Stephen F. McCormick, Quoc Nguyen, and John Ruge. Multilevel adaptive aggregation for Markov chains, with application to Web ranking. *SIAM Journal on Scientific Computing*, 30(5):2235–2262, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

DeSterck:2010:SAM

[DMM⁺10a]

H. De Sterck, T. A. Manteuffel, S. F. McCormick, K. Miller, J. Pearson, J. Ruge, and G. Sanders. Smoothed aggregation multigrid for

- Markov chains. *SIAM Journal on Scientific Computing*, 32(1):40–61, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMM+10b] **DeSterck:2010:AMM**
H. De Sterck, T. A. Mantueffel, S. F. McCormick, K. Miller, J. Ruge, and G. Sanders. Algebraic multigrid for Markov chains. *SIAM Journal on Scientific Computing*, 32(2):544–562, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMM+16] **DelRazo:2016:CVS**
M. J. Del Razo, Y. Morofuji, J. S. Meabon, B. R. Huber, E. R. Peskind, W. A. Banks, P. D. Mourad, R. J. LeVeque, and D. G. Cook. Computational and in vitro studies of blast-induced blood-brain barrier disruption. *SIAM Journal on Scientific Computing*, 38(3):B347–B374, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMM18] **Drmac:2018:DDM**
Zlatko Drmac, Igor Mezić, and Ryan Mohr. Data driven modal decompositions: Analysis and enhancements. *SIAM Journal on Scientific Computing*, 40(4):A2253–A2285, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMM19] **Drmac:2019:DDK**
Zlatko Drmac, Igor Mezić, and Ryan Mohr. Data driven Koopman spectral analysis in Vandermonde–Cauchy form via the DFT: Numerical method and theoretical insights. *SIAM Journal on Scientific Computing*, 41(5):A3118–A3151, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMM20] **Drmac:2020:LSP**
Zlatko Drmac, Igor Mezić, and Ryan Mohr. On least squares problems with certain Vandermonde–Khatri–Rao structure with applications to DMD. *SIAM Journal on Scientific Computing*, 42(5):A3250–A3284, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMML05] **DAzevedo:2005:ALP**
E. F. D’Azevedo, B. Messer, A. Mezzacappa, and M. Liebendörfer. An ADI-like preconditioner for Boltzmann transport. *SIAM Journal on Scientific Computing*, 26(3):810–820, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42401>.

- [DMMO04] **DeSterck:2004:LSF**
 H. De Sterck, Thomas A. Manteuffel, Stephen F. McCormick, and Luke Olson. Least-squares finite element methods and algebraic multi-grid solvers for linear hyperbolic PDEs. *SIAM Journal on Scientific Computing*, 26(1):31–54, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40858>.
- [DMMO05] **DeSterck:2005:NCP**
 H. De Sterck, Thomas A. Manteuffel, Stephen F. McCormick, and Luke Olson. Numerical conservation properties of H (div)-conforming least-squares finite element methods for the Burgers equation. *SIAM Journal on Scientific Computing*, 26(5):1573–1597, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43075>.
- [DMN08] **Dogan:2008:VSO**
 Günay Doğan, Pedro Morin, and Ricardo H. Nochetto. A variational shape optimization approach for image segmentation with a Mumford–Shah functional. *SIAM Journal on Scientific Computing*, 30(6):3028–3049, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMPV08] **Demmel:2008:PAL**
 James W. Demmel, Osni A. Marques, Beresford N. Parlett, and Christof Vömel. Performance and accuracy of LAPACK’s symmetric tridiagonal eigensolvers. *SIAM Journal on Scientific Computing*, 30(3):1508–1526, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMR17] **Dereudre:2017:ESB**
 David Dereudre, Sara Mazzonetto, and Sylvie Roelly. Exact simulation of Brownian diffusions with drift admitting jumps. *SIAM Journal on Scientific Computing*, 39(3):A711–A740, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DMRR19] **Dolejsi:2019:GOH**
 Vít Dolejší, Georg May, Ajay Rangarajan, and Filip Roskovec. A goal-oriented high-order anisotropic mesh adaptation using discontinuous Galerkin method for linear convection-diffusion-reaction problems. *SIAM Journal on Scientific Computing*, 41(3):A1899–A1922, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DMS01] **Dahmen:2001:AMS**
 Wolfgang Dahmen, Siegfried Müller, and Thomas Schlinkmann. On an adaptive multigrid solver for convection-dominated problems. *SIAM Journal on Scientific Computing*, 23(3):781–804, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35544>. [DN97]
- [DMSC18] **Donatelli:2018:SAM**
 Marco Donatelli, Mariarosa Mazza, and Stefano Serra-Capizzano. Spectral analysis and multigrid methods for finite volume approximations of space-fractional diffusion equations. *SIAM Journal on Scientific Computing*, 40(6):A4007–A4039, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DN13]
- [DMSW10] **DeSterck:2010:RAM**
 H. De Sterck, K. Miller, G. Sanders, and M. Winlaw. Recursively accelerated multilevel aggregation for Markov chains. *SIAM Journal on Scientific Computing*, 32(3):1652–1671, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DN19]
- [DMZ21] **Duan:2021:MFE**
 Huoyuan Duan, Junhua Ma, and Jun Zou. Mixed finite element method with Gauss’s law enforced for the Maxwell eigenproblem. *SIAM Journal on Scientific Computing*, 43(6):A3677–A3712, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dietrich:1997:FES**
 C. R. Dietrich and G. N. Newsam. Fast and exact simulation of stationary Gaussian processes through circulant embedding of the covariance matrix. *SIAM Journal on Scientific Computing*, 18(4):1088–1107, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24055>.
- Das:2013:SOE**
 Saptarshi Das and Arnold Neumaier. Solving overdetermined eigenvalue problems. *SIAM Journal on Scientific Computing*, 35(2):A541–A560, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dorfler:2019:DGF**
 Willy Dörfler and Robert Nürnberg. Discrete gradient flows for general curvature energies. *SIAM Journal on Scientific Computing*, 41(3):A2012–A2036, 2019. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Debusschere:2004:NCU

[DNP⁺04]

Bert J. Debusschere, Habib N. Najm, Philippe P. Pébay, Omar M. Knio, Roger G. Ghanem, and Olivier P. Le Maître. Numerical challenges in the use of polynomial chaos representations for stochastic processes. *SIAM Journal on Scientific Computing*, 26(2):698–719, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42774>. [Doh03]

Dahlby:2011:GFD

[DO11]

Morten Dahlby and Brynjulf Owren. A general framework for deriving integral preserving numerical methods for PDEs. *SIAM Journal on Scientific Computing*, 33(5):2318–2340, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2318_s1. [Doh07]

Dayar:2015:VKP

[DO15]

Tuğrul Dayar and M. Can Orhan. On vector-Kronecker product multiplication with rectangular factors. *SIAM Journal on Scientific Computing*, 37(5):S526–S543, 2015. CODEN SJOCE3. [DOKM22]

ISSN 1064-8275 (print), 1095-7197 (electronic).

Dohrmann:2003:PSB

Clark R. Dohrmann. A preconditioner for substructuring based on constrained energy minimization. *SIAM Journal on Scientific Computing*, 25(1):246–258, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dohrmann:2007:IOA

Clark R. Dohrmann. Interpolation operators for algebraic multigrid by local optimization. *SIAM Journal on Scientific Computing*, 29(5):2045–2058, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dohrmann:2021:SEL

Clark R. Dohrmann. Spectral equivalence of low-order discretizations for high-order $H(\text{curl})$ and $H(\text{div})$ spaces. *SIAM Journal on Scientific Computing*, 43(6):A3992–A4014, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Diffenderfer:2022:FEB

James Diffenderfer, Daniel Osei-Kuffuor, and Harshitha Menon. A framework for error-bounded approximate

- computing, with an application to dot products. *SIAM Journal on Scientific Computing*, 44(3):A1290–A1314, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1406994>. [DP98]
- [Don06] **Donoso:2006:NSH**
Alberto Donoso. Numerical simulations in 3D heat conduction: Minimizing the quadratic mean temperature gradient by an optimality criteria method. *SIAM Journal on Scientific Computing*, 28(3):929–941, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_65045.html.
- [Dor98] **Dorodnicyn:1998:KCA**
Ludwig W. Dorodnicyn. Kinetical-consistent algorithms for simulation of reactive flows. *SIAM Journal on Scientific Computing*, 20(3):826–843, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28843>.
- [Dor10] **Dorodnicyn:2010:ABC**
Ludwig W. Dorodnicyn. Artificial boundary conditions for high-accuracy aeroacoustic algorithms. *SIAM Journal on Scientific Computing*, 32(4):1950–1979, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- DeLillo:1998:NCM**
Thomas K. DeLillo and John A. Pfaltzgraff. Numerical conformal mapping methods for simply and doubly connected regions. *SIAM Journal on Scientific Computing*, 19(1):155–171, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30354>.
- [DP03] **Dossou:2003:NGA**
Kokou Dossou and Roger Pierre. A Newton–GMRES approach for the analysis of the postbuckling behavior of the solutions of the von Kármán equations. *SIAM Journal on Scientific Computing*, 24(6):1994–2012, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37614>.
- [DP07] **Delgado:2007:CCA**
Jorge Delgado and J. M. Peña. A corner cutting algorithm for evaluating rational Bézier surfaces and the optimal stability of the basis. *SIAM Journal on Scientific Computing*, 29(4):1215–1230, December 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31114>.

Computing, 29(4):1668–1682, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Delgado:2009:RRE

- [DP09] Jorge Delgado and J. M. Peña. Running relative error for the evaluation of polynomials. *SIAM Journal on Scientific Computing*, 31(5): 3905–3921, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DP19]

Dimarco:2010:FSI

- [DP10] Giacomo Dimarco and Lorenzo Pareschi. Fluid solver independent hybrid methods for multiscale kinetic equations. *SIAM Journal on Scientific Computing*, 32(2):603–634, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DP20]

Dunst:2016:FBS

- [DP16] Thomas Dunst and Andreas Prohl. The forward-backward stochastic heat equation: Numerical analysis and simulation. *SIAM Journal on Scientific Computing*, 38(5): A2725–A2755, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DPF15]

Danaila:2017:CGS

- [DP17] Ionut Danaila and Bartosz Protas. Computation of

ground states of the Gross–Pitaevskii functional via Riemannian optimization. *SIAM Journal on Scientific Computing*, 39(6):B1102–B1129, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dolgov:2019:PTP

Sergey Dolgov and John W. Pearson. Preconditioners and tensor product solvers for optimal control problems from chemotaxis. *SIAM Journal on Scientific Computing*, 41(6):B1228–B1253, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dimitrov:2020:EAC

Dimitar K. Dimitrov and Lourenço L. Peixoto. An efficient algorithm for the classical least squares approximation. *SIAM Journal on Scientific Computing*, 42(5): A3233–A3249, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dassi:2015:PAM

Franco Dassi, Simona Perotto, and Luca Formaggia. A priori anisotropic mesh adaptation on implicitly defined surfaces. *SIAM Journal on Scientific Computing*, 37(6): A2758–A2782, 2015. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). [DQ22]
- [DPS18] **Dimarco:2018:APM**
G. Dimarco, L. Pareschi, and G. Samaey. Asymptotic-preserving Monte Carlo methods for transport equations in the diffusive limit. *SIAM Journal on Scientific Computing*, 40(1):A504–A528, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DPV05] **Dhillon:2005:GMM**
Inderjit S. Dhillon, Beresford N. Parlett, and Christof Vömel. Glued matrices and the MRRR algorithm. *SIAM Journal on Scientific Computing*, 27(2):496–510, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/62074>. [DQQ13]
- [DPW19] **Dohrmann:2019:VBP**
Clark R. Dohrmann, Kendall H. Pierson, and Olof B. Widlund. Vertex-based preconditioners for the coarse problems of BDDC. *SIAM Journal on Scientific Computing*, 41(5):A3021–A3044, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DR93a]
- Dong:2022:WBP**
Jian Dong and Xu Qian. Well-balanced and positivity-preserving surface reconstruction schemes solving Ripa systems with nonflat bottom topography. *SIAM Journal on Scientific Computing*, 44(5):A3098–A3129, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1450823>.
- Discacciati:2013:NAI**
Marco Discacciati, Alfio Quarteroni, and Samuel Quinodoz. Numerical approximation of internal discontinuity interface problems. *SIAM Journal on Scientific Computing*, 35(5):A2341–A2369, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dalzell:1993:CRK**
C. J. Dalzell and J. O. Ramsay. Computing reproducing kernels with arbitrary boundary constraints. *SIAM Journal on Scientific Computing*, 14(3):511–518, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Dutt:1993:FFT**
A. Dutt and V. Rokhlin. Fast Fourier transforms for noneq-

- uispaced data. *SIAM Journal on Scientific Computing*, 14(6):1368–1393, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DR13] **Druskin:2013:KSC** [DRW20] Vladimir Druskin and Rob Remis. A Krylov stability-corrected coordinate-stretching method to simulate wave propagation in unbounded domains. *SIAM Journal on Scientific Computing*, 35(2):B376–B400, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DRFNP07] **Diaz:2007:WBF** M. J. Castro Díaz, T. Chacón Rebollo, E. D. Fernández-Nieto, and Carlos Parés. On well-balanced finite volume methods for nonconservative nonhomogeneous hyperbolic systems. *SIAM Journal on Scientific Computing*, 29(3):1093–1126, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Drm97] **Drmac:1997:IJR** [DS95a] Zlatko Drmač. Implementation of Jacobi rotations for accurate singular value computation in floating point arithmetic. *SIAM Journal on Scientific Computing*, 18(4):1200–1222, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DRW20] **Drzisga:2020:SSV** Daniel Drzisga, Ulrich Rüde, and Barbara Wohlmuth. Stencil scaling for vector-valued PDEs on hybrid grids with applications to generalized Newtonian fluids. *SIAM Journal on Scientific Computing*, 42(6):B1429–B1461, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DS93] **Dongarra:1993:PAN** Jack J. Dongarra and Majed Sidani. A parallel algorithm for the nonsymmetric eigenvalue problem. *SIAM Journal on Scientific Computing*, 14(3):542–569, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DS95a] **Diaz:1995:DDS** J. C. Díaz and K. Shoeni. Domain decomposition and Schur complement approaches to coupling the well equations in reservoir simulation. *SIAM Journal on Scientific Computing*, 16(1):29–39, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DS95b] **Don:1995:ASC** Wai Sun Don and Alex Solomonoff. Accuracy and speed in computing the Chebyshev collocation derivative. *SIAM Journal on Scientific Computing*, 16(6):1253–1268, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DS96] **Dayar:1996:EUG** Tuğrul Dayar and William J. Stewart. On the effects of using the Grassmann–Taksar–Heyman method in iterative aggregation-disaggregation. *SIAM Journal on Scientific Computing*, 17(1):287–303, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [DS97] **Don:1997:AEH** Wai Sun Don and Alex Solomonoff. Accuracy enhancement for higher derivatives using Chebyshev collocation and a mapping technique. *SIAM Journal on Scientific Computing*, 18(4):1040–1055, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27460>.
- [DS00] **Dayar:2000:CPT** Tuğrul Dayar and William J. Stewart. Comparison of partitioning techniques for two-level iterative solvers on large, sparse Markov chains. *SIAM Journal on Scientific Computing*, 21(5):1691–1705, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33815>.
- [DS14] **Dolgov:2014:AME** Sergey V. Dolgov and Dmitry V. Savostyanov. Alternating minimal energy methods for linear systems in higher dimensions. *SIAM Journal on Scientific Computing*, 36(5):A2248–A2271, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DS16] **Du:2016:HOS** Jie Du and Chi-Wang Shu. A high order stable conservative method for solving hyperbolic conservation laws on arbitrarily distributed point clouds. *SIAM Journal on Scientific Computing*, 38(5):A3094–A3128, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DS17] **Dolgov:2017:LRS** Sergey Dolgov and Martin Stoll. Low-rank solution to

an optimization problem constrained by the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 39(1): A255–A280, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Dahne:2020:CTE

[DS20]

Joel Dahne and Bruno Salvy. Computation of tight enclosures for Laplacian eigenvalues. *SIAM Journal on Scientific Computing*, 42(5): A3210–A3232, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

DeSterck:2023:ERR

[DSA23]

Hans De Sterck, Chi-Wang Shu, and Rémi Abgrall. Enhancing reproducibility of research papers in SISC, JSC, and JCP. *SIAM Journal on Scientific Computing*, 45(4):vii, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/23M1564286>.

DeCicco:1999:NSC

[DSB99]

M. De Cicco, S. Succi, and G. Bella. Nonlinear stability of compressible thermal lattice BGK models. *SIAM Journal on Scientific Computing*, 21(1):366–377, January 1999. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31980>.

Donatelli:2005:RPM

[DSC05]

Marco Donatelli and Stefano Serra-Capizzano. On the regularizing power of multigrid-type algorithms. *SIAM Journal on Scientific Computing*, 27(6):2053–2076, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60502.html.

deSturler:2015:NPI

[dSGK⁺15]

Eric de Sturler, Serkan Gugercin, Misha E. Kilmer, Saifon Chaturantabut, Christopher Beattie, and Meghan O’Connell. Nonlinear parametric inversion using interpolatory model reduction. *SIAM Journal on Scientific Computing*, 37(3):B495–B517, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

dosSantos:2022:GDM

[dSGS22]

Ketson R. dos Santos, Dimitrios G. Giovanis, and Michael D. Shields. Grassmannian diffusion maps-based dimension reduction and classification for high-dimensional data. *SIAM Journal on Scientific Computing*, 44(2):B250–B274,

???? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M137001X>.

deSturler:2011:RGN

[dSK11]

Eric de Sturler and Misha E. Kilmer. A regularized Gauss–Newton trust region approach to imaging in diffuse optical tomography. *SIAM Journal on Scientific Computing*, 33(5):3057–3086, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i5/p3057_s1

deSturler:2005:BDC

[dSL05]

Eric de Sturler and Jörg Liesen. Block-diagonal and constraint preconditioners for nonsymmetric indefinite linear systems. Part I: Theory. *SIAM Journal on Scientific Computing*, 26(5):1598–1619, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41100>.

Duruisseaux:2021:AHV

[DSL21]

Valentin Duruisseaux, Jeremy Schmitt, and Melvin Leok. Adaptive Hamiltonian variational integrators and applications to symplectic accelerated optimization. *SIAM*

Journal on Scientific Computing, 43(4):A2949–A2980, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

diSerafino:2021:CPK

[dSO21]

Daniela di Serafino and Dominique Orban. Constraint-preconditioned Krylov solvers for regularized saddle-point systems. *SIAM Journal on Scientific Computing*, 43(2):A1001–A1026, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Docampo-Sanchez:2017:MDF

[DSRMK17]

Julia Docampo-Sánchez, Jennifer K. Ryan, Mahsa Mirzargar, and Robert M. Kirby. Multi-dimensional filtering: Reducing the dimension through rotation. *SIAM Journal on Scientific Computing*, 39(5):A2179–A2200, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Du:2020:REA

[DSS20]

Kui Du, Wu-Tao Si, and Xiao-Hui Sun. Randomized extended average block Kaczmarz for solving least squares. *SIAM Journal on Scientific Computing*, 42(6):A3541–A3559, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [DSW22] **Danieli:2022:STB**
 Federico Danieli, Ben S. Southworth, and Andrew J. Wathen. Space-time block preconditioning for incompressible flow. *SIAM Journal on Scientific Computing*, 44(1):A337–A363, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1390773>.
- [DSYG18] **Duersch:2018:REI**
 Jed A. Duersch, Meiyue Shao, Chao Yang, and Ming Gu. A robust and efficient implementation of LOBPCG. *SIAM Journal on Scientific Computing*, 40(5):C655–C676, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DSZ13] **Druskin:2013:STD**
 V. Druskin, V. Simoncini, and M. Zaslavsky. Solution of the time-domain inverse resistivity problem in the model reduction framework. Part I. One-dimensional problem with SISO data. *SIAM Journal on Scientific Computing*, 35(3):A1621–A1640, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DT95] **Dendy:1995:GFD**
 J. E. Dendy, Jr. and C. C. Tazartes. Grandchild of the frequency decomposition multigrid method. *SIAM Journal on Scientific Computing*, 16(2):307–319, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DT00] **Diskin:2000:HSA**
 Boris Diskin and James L. Thomas. Half-space analysis of the defect-correction method for Fromm discretization of convection. *SIAM Journal on Scientific Computing*, 22(2):633–655, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35863>.
- [DT03] **Diskin:2003:NFD**
 Boris Diskin and James L. Thomas. New factorizable discretizations for the Euler equations. *SIAM Journal on Scientific Computing*, 25(2):657–681, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40478>.
- [DTM05] **Diskin:2005:QAM**
 Boris Diskin, James L. Thomas, and Raymond E. Mineck. On quantitative analysis methods for multigrid solutions. *SIAM Journal on Scientific Computing*,

27(1):108–129, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60152>.

Demo:2021:SLA

[DTR21]

Nicola Demo, Marco Tezzele, and Gianluigi Rozza. A supervised learning approach involving active subspaces for an efficient genetic algorithm in high-dimensional optimization problems. *SIAM Journal on Scientific Computing*, 43(3):B831–B853, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Drawert:2016:MCP

[DTT⁺16]

Brian Drawert, Michael Trogdon, Salman Toor, Linda Petzold, and Andreas Hellander. MOLNs: a cloud platform for interactive, reproducible, and scalable spatial stochastic computational experiments in systems biology using PyURDME. *SIAM Journal on Scientific Computing*, 38(3):C179–C202, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Doan:2013:PPA

[DTV13]

Xuan Vinh Doan, Kim-Chuan Toh, and Stephen Vavasis. A proximal point algorithm for sequential feature extraction applications.

SIAM Journal on Scientific Computing, 35(1):A517–A540, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

DElia:2020:PCF

[DTY20]

Marta D’Elia, Xiaochuan Tian, and Yue Yu. A physically consistent, flexible, and efficient strategy to convert local boundary conditions into nonlocal volume constraints. *SIAM Journal on Scientific Computing*, 42(4):A1935–A1949, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Duan:2018:MCF

[DTYY18]

Huo-Yuan Duan, Roger C. E. Tan, Suh-Yuh Yang, and Cheng-Shu You. A mixed H^1 -conforming finite element method for solving Maxwell’s equations with non- H^1 solution. *SIAM Journal on Scientific Computing*, 40(1):A224–A250, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Du:2011:SNM

[Du11]

Kui Du. A simple numerical method for complex geometrical optics solutions to the conductivity equation. *SIAM Journal on Scientific Computing*, 33(1):328–341, 2011. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p328_s1. [Dur16]
- Du:2016:WCS**
- [Du16] Kui Du. On well-conditioned spectral collocation and spectral methods by the integral reformulation. *SIAM Journal on Scientific Computing*, 38(5):A3247–A3263, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DV98]
- DeGennaro:2019:SED**
- [DU19] Anthony M. DeGennaro and Nathan M. Urban. Scalable extended dynamic mode decomposition using random kernel approximation. *SIAM Journal on Scientific Computing*, 41(3):A1482–A1499, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [DV20]
- Dul:1998:MMB**
- [Dul98] Franciszek A. Dul. MINRES and MINERR are better than SYMMLQ in eigenpair computations. *SIAM Journal on Scientific Computing*, 19(6):1767–1782, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28226>. [dVL10]
- Duru:2016:RNB**
- Kenneth Duru. The role of numerical boundary procedures in the stability of perfectly matched layers. *SIAM Journal on Scientific Computing*, 38(2):A1171–A1194, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Driscoll:1998:NCM**
- Tobin A. Driscoll and Stephen A. Vavasis. Numerical conformal mapping using cross-ratios and Delaunay triangulation. *SIAM Journal on Scientific Computing*, 19(6):1783–1803, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29858>.
- Dwarka:2020:SCU**
- Vandana Dwarka and Cornelis Vuik. Scalable convergence using two-level deflation preconditioning for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 42(2):A901–A928, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- daVeiga:2010:MDS**
- L. Beirão da Veiga and K. Lipnikov. A mimetic discretization of the Stokes problem with selected edge

- bubbles. *SIAM Journal on Scientific Computing*, 32(2): 875–893, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dVM08] Lourenço Beirão da Veiga and Gianmarco Manzini. A higher-order formulation of the mimetic finite difference method. *SIAM Journal on Scientific Computing*, 31(1): 732–760, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dVPS⁺17] L. Beirão da Veiga, L. F. Pavarino, S. Scacchi, O. B. Widlund, and S. Zampini. Adaptive selection of primal constraints for isogeometric BDDC deluxe preconditioners. *SIAM Journal on Scientific Computing*, 39(1):A281–A302, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DW94] Maksymilian Dryja and Olof B. Widlund. Domain decomposition algorithms with small overlap. *SIAM Journal on Scientific Computing*, 15(3):604–620, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods
- [DW97a] Wenlong Dai and Paul R. Woodward. A high-order Godunov-type scheme for shock interactions in ideal magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 18(4):957–981, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25772>.
- [DW97b] Wenlong Dai and Paul R. Woodward. An iterative Riemann solver for relativistic hydrodynamics. *SIAM Journal on Scientific Computing*, 18(4):982–995, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28223>.
- [DW98] Wenlong Dai and Paul R. Woodward. A high-order iterative implicit-explicit hybrid scheme for magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 19(6): 1827–1846, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25772>.

daVeiga:2008:HOF**daVeiga:2017:ASP****Dryja:1994:DDA****Dai:1997:HOG****Dai:1997:IRS****Dai:1998:HOI**

- /epubs.siam.org/sam-bin/dbq/article/28608.
- [DW05a] **Dollar:2005:AFC**
H. S. Dollar and A. J. Wathen. Approximate factorization constraint preconditioners for saddle-point matrices. *SIAM Journal on Scientific Computing*, 27(5):1555–1572, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60768.html.
- [DW05b] **Du:2005:ACV**
Qiang Du and Desheng Wang. Anisotropic centroidal Voronoi tessellations and their applications. *SIAM Journal on Scientific Computing*, 26(3):737–761, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42852>.
- [DW15a] **Dow:2015:OGR**
Eric Dow and Qiqi Wang. Optimization of Gaussian random fields. *SIAM Journal on Scientific Computing*, 37(4):A1685–A1704, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DW15b] **Du:2015:FFE**
Ning Du and Hong Wang. A fast finite element method for space-fractional dispersion equations on bounded domains in \mathbf{R}^2 . *SIAM Journal on Scientific Computing*, 37(3):A1614–A1635, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DW17] **Dohrmann:2017:DSC**
Clark R. Dohrmann and Olof B. Widlund. On the design of small coarse spaces for domain decomposition algorithms. *SIAM Journal on Scientific Computing*, 39(4):A1466–A1488, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dWPR20] **deWiljes:2020:ETA**
Jana de Wiljes, Sahani Pathiraja, and Sebastian Reich. Ensemble transform algorithms for nonlinear smoothing problems. *SIAM Journal on Scientific Computing*, 42(1):A87–A114, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DWQY19] **Du:2019:HOB**
Jie Du, Cheng Wang, Chengeng Qian, and Yang Yang. High-order bound-preserving discontinuous Galerkin methods for stiff multispecies detonation. *SIAM Journal on Scientific Computing*, 41(2):B250–B273, 2019. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [DY06] **Dai:2006:RFE**
 Qingfang Dai and Xijun Yu. RKDG finite element method combined with BGK scheme for solving fluid dynamics system. *SIAM Journal on Scientific Computing*, 28(3): 805–831, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61878.html.
- [DY23] **Duan:2023:QSS**
 Beiping Duan and Zongze Yang. A quadrature scheme for steady-state diffusion equations involving fractional power of regularly accretive operator. *SIAM Journal on Scientific Computing*, 45(5): A2226–A2249, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1497298>.
- [DYZC22] **Ding:2022:PIP**
 Cuiyang Ding, Changhao Yan, Xuan Zeng, and Wei Cai. A parallel iterative probabilistic method for mixed problems of Laplace equations with the Feynman–Kac formula of killed Brownian motions. *SIAM Journal on Scientific Computing*, 44(5): A3413–A3435, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DZ08] **Du:2008:AFE**
 Qiang Du and Jian Zhang. Adaptive finite element method for a phase field bending elasticity model of vesicle membrane deformations. *SIAM Journal on Scientific Computing*, 30(3):1634–1657, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DZ12] **Degani:2012:OQC**
 Ilan Degani and Antonella Zanna. Optimal quantum control by an adapted coordinate ascent algorithm. *SIAM Journal on Scientific Computing*, 34(3):A1488–A1521, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [DZ15] **DelReyFernandez:2015:GSP**
 David C. Del Rey Fernández and David W. Zingg. Generalized summation-by-parts operators for the second derivative. *SIAM Journal on Scientific Computing*, 37(6): A2840–A2864, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [dZHY23] **Zhang:2023:RWF**
 Guo dong Zhang, Xiaoming He, and Xiaofeng Yang.

- Reformulated weak formulation and efficient fully discrete finite element method for a two-phase ferrohydrodynamics Shliomis model. *SIAM Journal on Scientific Computing*, 45(3):B253–B282, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1499376>. [EAS08]
- Degani:2009:QCP**
- [DZSN09] Ilan Degani, Antonella Zanna, Lene Sælen, and Raymond Nepstad. Quantum control with piecewise constant control functions. *SIAM Journal on Scientific Computing*, 31(5):3566–3594, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EAS11]
- Emery:2021:CMS**
- [EAA21] Xavier Emery, Alfredo Alegría, and Daisy Arroyo. Covariance models and simulation algorithm for stationary vector random fields on spheres crossed with Euclidean spaces. *SIAM Journal on Scientific Computing*, 43(5):A3114–A3134, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EB96]
- El-Amrani:2021:EGC**
- [EAOS21] Mofdi El-Amrani, Abdelouahed Ouarghi, and Mohammed Seaid. Enriched Galerkin-characteristics finite element method for incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 43(2):A1336–A1361, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- El-Amrani:2008:GCM**
- Mofdi El-Amrani and Mohammed Seaid. A Galerkin-characteristic method for large-eddy simulation of turbulent flow and heat transfer. *SIAM Journal on Scientific Computing*, 30(6):2734–2754, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- El-Amrani:2011:PGC**
- Mofdi El-Amrani and Mohammed Seaid. An L^2 -projection for the Galerkin-characteristic solution of incompressible flows. *SIAM Journal on Scientific Computing*, 33(6):3110–3131, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i6/p3110_s1.
- Elliott:1996:FFT**
- William D. Elliott and John A. Board, Jr. Fast Fourier transform accelerated fast multipole algorithm. *SIAM Journal on*

Scientific Computing, 17(2): 398–415, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26425>.

Elden:2000:WFM

[EBR00]

Lars Eldén, Fredrik Berntsson, and Teresa Reginska. Wavelet and Fourier methods for solving the sideways heat equation. *SIAM Journal on Scientific Computing*, 21(6): 2187–2205, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33139>.

Eriksson-Bique:2011:ISM

[EBSS⁺11]

Sylvester Eriksson-Bique, Mary Solbrig, Michael Stefanelli, Sarah Warkentin, Ralph Abbey, and Ilse C. F. Ipsen. Importance sampling for a Monte Carlo matrix multiplication algorithm, with application to information retrieval. *SIAM Journal on Scientific Computing*, 33(4):1689–1706, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1689_s1.

Evrard:2023:FMP

[ECH⁺23]

Fabien Evrard, Robert Chiodi,

Austin Han, Berend van Wachem, and Olivier Desjardins. First moments of a polyhedron clipped by a paraboloid. *SIAM Journal on Scientific Computing*, 45(5):A2250–A2274, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1524308>.

Epton:1995:MTT

[ED95]

Michael A. Epton and Benjamin Dembart. Multipole translation theory for the three-dimensional Laplace and Helmholtz equations. *SIAM Journal on Scientific Computing*, 16(4):865–897, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Erhel:2009:FST

[EdDP09]

Jocelyne Erhel, Jean-Raynald de Dreuzy, and Baptiste Poirriez. Flow simulation in three-dimensional discrete fracture networks. *SIAM Journal on Scientific Computing*, 31(4):2688–2705, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

ElBouajaji:2012:OSM

[EDGL12]

M. El Bouajaji, V. Dolean, M. J. Gander, and S. Lanteri. Optimized Schwarz methods for the time-harmonic Maxwell equations with

- damping. *SIAM Journal on Scientific Computing*, 34(4): A2048–A2071, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EE14] Matt Elsey and Selim Esedoğlu. Fast and accurate redistancing by directional optimization. *SIAM Journal on Scientific Computing*, 36(1):A219–A231, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EEO01] Howard C. Elman, Oliver G. Ernst, and Dianne P. O’Leary. A multigrid method enhanced by Krylov subspace iteration for discrete Helmholtz equations. *SIAM Journal on Scientific Computing*, 23(4):1291–1315, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35719>.
- [EF05] Steinar Evje and Tore Flåtten. Weakly implicit numerical schemes for a two-fluid model. *SIAM Journal on Scientific Computing*, 26(5): 1449–1484, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430194>.
- [EF15] Howard C. Elman and Virginia Forstall. Preconditioning techniques for reduced basis methods for parameterized elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 37(5):S177–S194, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EFHL09] Stefan Engblom, Lars Ferm, Andreas Hellander, and Per Lötstedt. Simulation of stochastic reaction-diffusion processes on unstructured meshes. *SIAM Journal on Scientific Computing*, 31(3): 1774–1797, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Elsey:2014:FAR**Evje:2005:WIN****Elman:2001:MME****Elman:2015:PTR****Eliasof:2023:MMC****Engblom:2009:SSR**

- [EFHT23] **Eigel:2023:ANR** Martin Eigel, Nando Farchmin, Sebastian Heidenreich, and Philipp Trunschke. Adaptive nonintrusive reconstruction of solutions to high-dimensional parametric PDEs. *SIAM Journal on Scientific Computing*, 45(2):A457–A479, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1461988>.
- [EG93] **Elman:1993:PEP** H. C. Elman and Xian Zhong Guo. Performance enhancements and parallel algorithms for two multilevel preconditioners. *SIAM Journal on Scientific Computing*, 14(4): 890–913, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EG01] **Ethridge:2001:NFM** Frank Ethridge and Leslie Greengard. A new fast-multipole accelerated Poisson solver in two dimensions. *SIAM Journal on Scientific Computing*, 23(3): 741–760, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36996>.
- [EFOS20a] **Estrin:2020:ISEa** Ron Estrin, Michael P. Friedlander, Dominique Orban, and Michael A. Saunders. Implementing a smooth exact penalty function for equality-constrained nonlinear optimization. *SIAM Journal on Scientific Computing*, 42(3): A1809–A1835, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EG18] **Estrin:2018:SFS** Ron Estrin and Chen Greif. SPMR: a family of saddle-point minimum residual solvers. *SIAM Journal on Scientific Computing*, 40(3): A1884–A1914, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EFOS20b] **Estrin:2020:ISEb** Ron Estrin, Michael P. Friedlander, Dominique Orban, and Michael A. Saunders. Implementing a smooth exact penalty function for general constrained nonlinear optimization. *SIAM Journal on Scientific Computing*, 42(3):A1836–A1859, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EG22] **Ern:2022:IDP** Alexandre Ern and Jean-Luc Guermond. Invariant-domain-preserving high-order time stepping: I. Explicit

- Runge–Kutta schemes. *SIAM Journal on Scientific Computing*, 44(5):A3366–A3392, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M145793X>.
- [EG23] Alexandre Ern and Jean-Luc Guermond. Invariant-domain preserving high-order time stepping: II. IMEX schemes. *SIAM Journal on Scientific Computing*, 45(5):A2511–A2538, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1505025>.
- [Eggs18] H. Egger. A robust conservative mixed finite element method for isentropic compressible flow on pipe networks. *SIAM Journal on Scientific Computing*, 40(1):A108–A129, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EGKS94] Alexandre Ern, Vincent Giovangigli, David E. Keyes, and Mitchell D. Smooke. Towards polyalgorithmic linear system solvers for nonlinear elliptic problems. *SIAM Journal on Scientific Computing*, 15(3):681–703, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [Ern:2023:IDP] Alexandre Ern and Jean-Luc Guermond. Invariant-domain preserving high-order time stepping: II. IMEX schemes. *SIAM Journal on Scientific Computing*, 45(5):A2511–A2538, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1505025>.
- [EGLS21] Virginie Ehrlicher, Laura Grigori, Damiano Lombardi, and Hao Song. Adaptive hierarchical subtensor partitioning for tensor compression. *SIAM Journal on Scientific Computing*, 43(1):A139–A163, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EHL05] Donald Estep, Michael Holst, and Mats Larson. Generalized Green’s functions and the effective domain of influence. *SIAM Journal on Scientific Computing*, 26(4):1314–1339, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EHL18] Tommy Elfving and Per Christian Hansen. Unmatched projector/backprojector pairs: Perturbation and convergence analysis. *SIAM Journal on Scientific Computing*, 40(1):A573–A591, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Estep:2005:GGF] Donald Estep, Michael Holst, and Mats Larson. Generalized Green’s functions and the effective domain of influence. *SIAM Journal on Scientific Computing*, 26(4):1314–1339, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41631>.

Efendiev:2006:PMC

[EHL06]

Y. Efendiev, T. Hou, and W. Luo. Preconditioning Markov chain Monte Carlo simulations using coarse-scale models. *SIAM Journal on Scientific Computing*, 28(2): 776–803, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62856.html.

Etling:2020:FSO

[EHLW20]

Tommy Etling, Roland Herzog, Estefanía Loayza, and Gerd Wachsmuth. First and second order shape optimization based on restricted mesh deformations. *SIAM Journal on Scientific Computing*, 42(2):A1200–A1225, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Elfving:2012:SRP

[EHN12]

Tommy Elfving, Per Christian Hansen, and Touraj Nikazad. Semiconvergence and relaxation parameters for projected SIRT algorithms. *SIAM Journal on Scientific Computing*, 34(4): A2000–A2017, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[EHS⁺05]

Elman:2005:BPB

Howard Elman, Victoria E. Howle, John Shadid, Robert Shuttleworth, and Ray Tuminaro. Block preconditioners based on approximate commutators. *SIAM Journal on Scientific Computing*, 27(5):1651–1668, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60881.html.

Elman:2007:LSP

[EHS⁺07]

Howard Elman, Victoria E. Howle, John Shadid, David Silvester, and Ray Tuminaro. Least squares preconditioners for stabilized discretizations of the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 30(1): 290–311, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Etling:2019:OED

[EHS19]

Tommy Etling, Roland Herzog, and Martin Siebenborn. Optimum experimental design for interface identification problems. *SIAM Journal on Scientific Computing*, 41(6):A3498–A3523, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [EHW00] **Estep:2000:CEE** Donald Estep, Dewey H. Hodges, and Michael Warner. Computational error estimation and adaptive error control for a finite element solution of launch vehicle trajectory problems. *SIAM Journal on Scientific Computing*, 21(4):1609–1631, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33773>. [EIL01]
- [EHW00] R. Ewing, O. Iliev, and R. Lazarov. A modified finite volume approximation of second-order elliptic equations with discontinuous coefficients. *SIAM Journal on Scientific Computing*, 23(4):1335–1351, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35387>. **Ewing:2001:MFV**
- [EIL01] R. Ewing, O. Iliev, R. Lazarov, I. Rybak, and J. Willems. A simplified method for up-scaling composite materials with high contrast of the conductivity. *SIAM Journal on Scientific Computing*, 31(4):2568–2586, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Ewing:2009:SMU**
- [EIL+09] **Einkemmer:2021:EDL** Lukas Einkemmer, Jingwei Hu, and Lexing Ying. An efficient dynamical low-rank algorithm for the Boltzmann-BGK equation close to the compressible viscous flow regime. *SIAM Journal on Scientific Computing*, 43(5):B1057–B1080, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EJH20]
- [EJH20] **Escapil-Inchauspe:2020:HSR** Paul Escapil-Inchauspe and Carlos Jerez-Hanckes. Helmholtz scattering by random domains: First-order sparse boundary element approximation. *SIAM Journal on Scientific Computing*, 42(5):A2561–A2592, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ein19]
- [Ein19] **Einkemmer:2019:LRA** Lukas Einkemmer. A low-rank algorithm for weakly compressible flow. *SIAM Journal on Scientific Computing*, 41(5):A2795–A2814, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Einkemmer:2019:LRA**
- [EJJ08] **Elliott:2008:CCG** David Elliott, Barbara M. Johnston, and Peter R. Johnston. Clenshaw–Curtis and

- Gauss–Legendre quadrature for certain boundary element integrals. *SIAM Journal on Scientific Computing*, 31(1): 510–530, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EJL03] Kenneth Eriksson, Claes Johnson, and Anders Logg. Explicit time-stepping for stiff ODEs. *SIAM Journal on Scientific Computing*, 25(4):1142–1157, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40962>.
- [EKL⁺18] Eriksson:2003:ETS Gauss–Legendre quadrature for certain boundary element integrals. *SIAM Journal on Scientific Computing*, 31(1): 510–530, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EK10] Espanol:2010:MAS Malena I. Español and Misha E. Kilmer. Multilevel approach for signal restoration problems with Toeplitz matrices. *SIAM Journal on Scientific Computing*, 32(1): 299–319, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EK14] Espanol:2014:WBM Malena I. Español and Misha E. Kilmer. A wavelet-based multilevel approach for blind deconvolution problems. *SIAM Journal on Scientific Computing*, 36(4): A1432–A1450, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EKM94] Ecker:1994:PSO Joseph G. Ecker, Michael Kupferschmid, and Samuel P. Marin. Performance of several optimization methods on robot trajectory planning problems. *SIAM Journal on Scientific Computing*, 15(6): 1401–1412, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EKSS16] Engels:2016:FNP Thomas Engels, Dmitry Kolomenskiy, Kai Schneider, and Jörn Sesterhenn. FluSI: a novel parallel simulation tool for flapping insect flight using a Fourier method with volume penalization. *SIAM Journal on Scientific Computing*, 38(5):S3–S24, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Egger:2018:SPM] H. Egger, T. Kugler, B. Liljegren-Sailer, N. Marheineke, and V. Mehrmann. On structure-preserving model reduction for damped wave propagation in transport networks. *SIAM Journal on Scientific Computing*, 40(1):A331–A365, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [EKS_W15] **Egger:2015:STD** Herbert Egger, Fritz Kretzschmar, Sascha M. Schnepf, and Thomas Weiland. A space–time discontinuous Galerkin Trefftz method for time dependent Maxwell’s equations. *SIAM Journal on Scientific Computing*, 37(5): B689–B711, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EL93] **Eisenstat:1993:ESS** Stanley C. Eisenstat and Joseph W. H. Liu. Exploiting structural symmetry in a sparse partial pivoting code. *SIAM Journal on Scientific Computing*, 14(1):253–257, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EL01] **Edoh:2001:CLT** K. D. Edoh and J. Lorenz. Computation of Lyapunov-type numbers for invariant curves of planar maps. *SIAM Journal on Scientific Computing*, 23(4):1113–1134, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36670>.
- [EL03] **Edoh:2003:NAR** K. D. Edoh and J. Lorenz. Numerical approximation of rough invariant curves of planar maps. *SIAM Journal on Scientific Computing*, 25(1): 213–223, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EL18] **Einkemmer:2018:LRP** Lukas Einkemmer and Christian Lubich. A low-rank projector-splitting integrator for the Vlasov–Poisson equation. *SIAM Journal on Scientific Computing*, 40(5): B1330–B1360, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EL19] **Einkemmer:2019:QCD** Lukas Einkemmer and Christian Lubich. A quasi-conservative dynamical low-rank algorithm for the Vlasov equation. *SIAM Journal on Scientific Computing*, 41(5): B1061–B1081, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EL20] **Eidnes:2020:LIL** Sølve Eidnes and Lu Li. Linearly implicit local and global energy-preserving methods for PDEs with a cubic Hamiltonian. *SIAM Journal on Scientific Computing*, 42(5): A2865–A2888, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [Elb06] **Elbarbary:2006:IPM**
 Elsayed M. E. Elbarbary. Integration preconditioning matrix for ultraspherical pseudospectral operators. *SIAM Journal on Scientific Computing*, 28(3):1186–1201, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Elm98] **Elman:1998:ISI**
 Howard Elman. Introduction to the special issue on iterative methods for solving systems of algebraic equations. *SIAM Journal on Scientific Computing*, 19(1):vii, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97403>.
- [Elm99] **Elman:1999:PSS**
 Howard C. Elman. Preconditioning for the steady-state Navier–Stokes equations with low viscosity. *SIAM Journal on Scientific Computing*, 20(4):1299–1316, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31254>.
- [Elm00] **Elman:2000:SII**
 Howard Elman. Special issue on iterative methods for solving systems of algebraic equations. *SIAM Journal on Scientific Computing*, 21(5):vii, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97413>.
- [ELM21] **Embree:2021:PPA**
 Mark Embree, Jennifer A. Loe, and Ronald Morgan. Polynomial preconditioned Arnoldi with stability control. *SIAM Journal on Scientific Computing*, 43(1):A1–A25, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Elt96] **Elton:1996:CLB**
 Bracy H. Elton. Comparisons of lattice Boltzmann and finite difference methods for a two-dimensional viscous Burgers equation. *SIAM Journal on Scientific Computing*, 17(4):783–813, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ELtHR00] **Engelborghs:2000:CMC**
 K. Engelborghs, T. Luzyanina, K. J. In ’t Hout, and D. Roose. Collocation methods for the computation of periodic solutions of delay differential equations. *SIAM Journal on Scientific Computing*, 22(5):1593–1609, September 2000.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36338>.

Endtmayer:2020:TSP

[ELW20]

B. Endtmayer, U. Langer, and T. Wick. Two-side a posteriori error estimates for the dual-weighted residual method. *SIAM Journal on Scientific Computing*, 42(1):A371–A394, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Enright:1996:RKS

[EM96]

W. H. Enright and P. H. Muir. Runge–Kutta software with defect control for boundary value ODEs. *SIAM Journal on Scientific Computing*, 17(2):479–497, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25149>.

Enright:1999:SIC

[EM99]

W. H. Enright and P. H. Muir. Superconvergent interpolants for the collocation solution of boundary value ordinary differential equations. *SIAM Journal on Scientific Computing*, 21(1):227–254, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32911>.

[/epubs.siam.org/sam-bin/dbq/article/32911](http://epubs.siam.org/sam-bin/dbq/article/32911).

Emans:2010:EPA

[Ema10]

Maximilian Emans. Efficient parallel AMG methods for approximate solutions of linear systems in CFD applications. *SIAM Journal on Scientific Computing*, 32(4):2235–2254, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Elsner:1999:AML

[EMM⁺99]

Ulrich Elsner, Volker Mehrmann, Frank Milde, Rudolf A. Römer, and Michael Schreiber. The Anderson model of localization: a challenge for modern eigenvalue methods. *SIAM Journal on Scientific Computing*, 20(6):2089–2102, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33221>.

Embree:2017:WIP

[EMN17]

Mark Embree, Ronald B. Morgan, and Huy V. Nguyen. Weighted inner products for GMRES and GMRES–DR. *SIAM Journal on Scientific Computing*, 39(5):S610–S632, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [EMNS20] **Engwer:2020:SDC**
 Christian Engwer, Sandra May, Andreas Nüßing, and Florian Streitbürger. A stabilized DG cut cell method for discretizing the linear transport equation. *SIAM Journal on Scientific Computing*, 42(6):A3677–A3703, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EMSW12] **Elman:2012:LII** [EN08]
 Howard C. Elman, Karl Meerbergen, Alastair Spence, and Minghao Wu. Lyapunov inverse iteration for identifying Hopf bifurcations in models of incompressible flow. *SIAM Journal on Scientific Computing*, 34(3):A1584–A1606, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EMT99] **Edelman:1999:FFF** [EN09]
 Alan Edelman, Peter McCorquodale, and Sivan Toledo. The future Fast Fourier Transform? *SIAM Journal on Scientific Computing*, 20(3):1094–1114, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31626>.
- [EMT09] **Estep:2009:NDE**
 D. Estep, A. Målqvist, and S. Tavener. Nonparametric density estimation for randomly perturbed elliptic problems I: Computational methods, *A Posteriori* analysis, and adaptive error control. *SIAM Journal on Scientific Computing*, 31(4):2935–2959, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Erlangga:2008:MPB**
 Yogi A. Erlangga and Reinhard Nabben. Multi-level projection-based nested Krylov iteration for boundary value problems. *SIAM Journal on Scientific Computing*, 30(3):1572–1595, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Erlangga:2009:AMK**
 Yogi A. Erlangga and Reinhard Nabben. Algebraic multilevel Krylov methods. *SIAM Journal on Scientific Computing*, 31(5):3417–3437, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Elvetun:2016:PCO** [EN16]
 Ole Løseth Elvetun and Bjørn Fredrik Nielsen. PDE-constrained optimization with local control and boundary observations: Robust preconditioners. *SIAM Journal on Scientific Computing*, 38(6):A3461–A3491, 2016.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EO16b]
- Enander:1997:IER**
- [Ena97] Rickard Enander. Implicit explicit residual smoothing for the multidimensional Euler and Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 18(5):1243–1254, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26263>. [EOD93]
- Einkemmer:2015:OOR**
- [EO15] Lukas Einkemmer and Alexander Ostermann. Overcoming order reduction in diffusion-reaction splitting. Part 1: Dirichlet boundary conditions. *SIAM Journal on Scientific Computing*, 37(3):A1577–A1592, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EOV05]
- Einkemmer:2016:OOR**
- [EO16a] Lukas Einkemmer and Alexander Ostermann. Overcoming order reduction in diffusion-reaction splitting. Part 2: Oblique boundary conditions. *SIAM Journal on Scientific Computing*, 38(6):A3741–A3757, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [EOZ94]
- Epstein:2016:SCS**
- Charles L. Epstein and Michael O’Neil. Smoothed corners and scattered waves. *SIAM Journal on Scientific Computing*, 38(5):A2665–A2698, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Edwards:1993:AAR**
- Michael G. Edwards, J. Tinsley Oden, and Leszek Demkowicz. An h - r -adaptive approximate Riemann solver for the Euler equations in two dimensions. *SIAM Journal on Scientific Computing*, 14(1):185–217, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Erlangga:2005:NMB**
- Y. A. Erlangga, C. W. Oosterlee, and C. Vuik. A novel multigrid based preconditioner for heterogeneous Helmholtz problems. *SIAM Journal on Scientific Computing*, 27(4):1471–1492, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61519.html.
- Engquist:1994:FWB**
- Björn Engquist, Stanley Osher, and Sifen Zhong. Fast wavelet based algorithms for

- linear evolution equations. *SIAM Journal on Scientific Computing*, 15(4):755–775, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Ehre:2022:SAL**
- [EPSS22] Max Ehre, Iason Papaioannou, Bruno Sudret, and Daniel Straub. Sequential active learning of low-dimensional model representations for reliability analysis. *SIAM Journal on Scientific Computing*, 44(3):B558–B584, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416758>.
- [EP06] **Erhard:2006:NSP** Klaus Erhard and Roland Potthast. A numerical study of the probe method. *SIAM Journal on Scientific Computing*, 28(5):1597–1612, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EPE05] **Emad:2005:MER** Nahid Emad, Serge Petiton, and Guy Edjlali. Multiple explicitly restarted Arnoldi method for solving large eigenproblems. *SIAM Journal on Scientific Computing*, 27(1):253–277, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36608>. **Ernst:2009:ESL**
- [EPSU09] O. G. Ernst, C. E. Powell, D. J. Silvester, and E. Ullmann. Efficient solvers for a linear stochastic Galerkin mixed formulation of diffusion problems with random data. *SIAM Journal on Scientific Computing*, 31(2):1424–1447, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [EPR10] **Eftang:2010:CRB** Jens L. Eftang, Anthony T. Patera, and Einar M. Rønquist. An “*hp*” certified reduced basis method for parametrized elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 32(6):3170–3200, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Ewing:1994:TLL**
- [EPV94] Richard E. Ewing, Svetozara I. Petrova, and Panayot S. Vassilevski. Two-level local refinement preconditioners for nonsymmetric and indefinite elliptic problems. *SIAM Journal on Scientific Computing*, 15(1):149–163, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ehrlacher:2022:SGA

- [ERL22] Virginie Ehrlacher, Maria Fuentes, [ES00] Ruiz, and Damiano Lombardi. SOTT: Greedy approximation of a tensor as a sum of tensor trains. *SIAM Journal on Scientific Computing*, 44(2):A664–A688, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1381472>.

Eller:2017:SLF

- [ERSZ17] Martin Eller, Stefan Reitzinger, Sebastian Schöps, [ES17] and Sabine Zaglmayr. A symmetric low-frequency stable broadband Maxwell formulation for industrial applications. *SIAM Journal on Scientific Computing*, 39(4):B703–B731, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Elman:1996:FNI

- [ES96] Howard Elman and David Silvester. [ES18a] Fast nonsymmetric iterations and preconditioning for Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 17(1):33–46, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [ES18b]

Eugeciouglu:2000:END

- Ömer Eugeciouglu and Ashok Srinivasan. Efficient non-parametric density estimation on the sphere with applications in fluid mechanics. *SIAM Journal on Scientific Computing*, 22(1):152–176, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29046>.

Erath:2017:ANF

- Christoph Erath and Robert Schorr. An adaptive non-symmetric finite volume and boundary element coupling method for a fluid mechanics interface problem. *SIAM Journal on Scientific Computing*, 39(3):A741–A760, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Elman:2018:CME

- Howard C. Elman and David J. Silvester. Collocation methods for exploring perturbations in linear stability analysis. *SIAM Journal on Scientific Computing*, 40(4):A2667–A2693, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Essid:2018:QRO

- Montacer Essid and Justin

- Solomon. Quadratically regularized optimal transport on graphs. *SIAM Journal on Scientific Computing*, 40(4):A1961–A1986, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ett16]
- [ES19] Howard C. Elman and Tengfei Su. Low-rank solution methods for stochastic eigenvalue problems. *SIAM Journal on Scientific Computing*, 41(4):A2657–A2680, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Elman:2019:LRS**
- [ES22] Aryan Eftekhari and Simon Scheidegger. High-dimensional dynamic stochastic model representation. *SIAM Journal on Scientific Computing*, 44(3):C210–C236, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1392231>. **Eftekhari:2022:HDD**
- [ET01] Mark Embree and Lloyd N. Trefethen. Generalizing eigenvalue theorems to pseudospectra theorems. *SIAM Journal on Scientific Computing*, 23(2):583–590, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37301>. **Etter:2016:PAS**
- [EÜ09] Hale Erten and Alper Üngör. Quality triangulations with locally optimal Steiner points. *SIAM Journal on Scientific Computing*, 31(3):2103–2130, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Erten:2009:QTL**
- [EV13] Alexandre Ern and Martin Vohralík. Adaptive inexact Newton methods with *A Posteriori* stopping criteria for nonlinear diffusion PDEs. *SIAM Journal on Scientific Computing*, 35(4):A1761–A1791, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Ern:2013:AIN**
- [EVLW17] Christian Engwer, Johannes Vorwerk, Jakob Ludewig, and Carsten H. Wolters. A discontinuous Galerkin method to

solve the EEG forward problem using the subtraction approach. *SIAM Journal on Scientific Computing*, 39(1): B138–B164, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Eisenstat:1996:CFT

[EW96]

Stanley C. Eisenstat and Homer F. Walker. Choosing the forcing terms in an inexact Newton method. *SIAM Journal on Scientific Computing*, 17(1):16–32, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Eibeck:2000:ESA

[EW00]

Andreas Eibeck and Wolfgang Wagner. An efficient stochastic algorithm for studying coagulation dynamics and gelation phenomena. *SIAM Journal on Scientific Computing*, 22(3): 802–821, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35348>.

Engquist:2007:FDM

[EY07]

Björn Engquist and Lexing Ying. Fast directional multilevel algorithms for oscillatory kernels. *SIAM Jour-*

nal on Scientific Computing, 29(4):1710–1737, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Edwards:2011:QMM

[EZ11]

Michael G. Edwards and Hongwen Zheng. Quasi-Matrix multifamily continuous darcy-flux approximations with full pressure support on structured and unstructured grids in three dimensions. *SIAM Journal on Scientific Computing*, 33(2): 455–487, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p455_s1.

Fairag:2003:NCV

[Fai03]

Faisal Fairag. Numerical computations of viscous, incompressible flow problems using a two-level finite element method. *SIAM Journal on Scientific Computing*, 24(6):1919–1929, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37089>.

Fanaskov:2022:GBP

[Fan22]

Vladimir Fanaskov. Gaussian belief propagation solvers for nonsymmetric systems of linear equations. *SIAM Journal on Scientific Computing*,

- 44(1):A77–A102, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/19M1275139>.
- [Far01] Leandro Farina. Evaluation of single layer potentials over curved surfaces. *SIAM Journal on Scientific Computing*, 23(1):81–91, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36339>.
- [FB95] Chris Fraley and Patrick J. Burns. Large-scale estimation of variance and covariance components. *SIAM Journal on Scientific Computing*, 16(1):192–209, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FB19] Marco Frego and Enrico Bertolazzi. Point-clothoid distance and projection computation. *SIAM Journal on Scientific Computing*, 41(5):A3326–A3353, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FB21] Enrico Facca and Michele Benzi. Fast iterative solution of the optimal transport problem on graphs. *SIAM Journal on Scientific Computing*, 43(3):A2295–A2319, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FBF15] P. E. Farrell, Á. Birkisson, and S. W. Funke. Deflation techniques for finding distinct solutions of nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 37(4):A2026–A2045, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FCC10] Panagiotis A. Foteinos, Andrey N. Chernikov, and Nikos P. Chrisochoides. Fully generalized two-dimensional constrained Delaunay mesh refinement. *SIAM Journal on Scientific Computing*, 32(5):2659–2686, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FCF14] P. E. Farrell, C. J. Cotter, and S. W. Funke. A framework for the automation of generalized stability theory. *SIAM Journal on Scientific Computing*, 36(1):C25–C48, 2014. CODEN SJOCE3. ISSN 1064-

Farina:2001:ESL**Farrell:2015:DTF****Fraley:1995:LSE****Foteinos:2010:FGT****Frego:2019:PCD****Farrell:2014:FAG****Facca:2021:FIS**

- 8275 (print), 1095-7197 (electronic).
- [FCF19] **Frigo:2019:RPF** Matteo Frigo, Nicola Castelletto, and Massimiliano Ferronato. A relaxed physical factorization preconditioner for mixed finite element coupled poromechanics. *SIAM Journal on Scientific Computing*, 41(4):B694–B720, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FCM12] **Forestier-Coste:2012:FVP** L. Forestier-Coste and S. Mancini. A finite volume preserving scheme on nonuniform meshes and for multidimensional coalescence. *SIAM Journal on Scientific Computing*, 34(6):B840–B860, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FCR93] **Farhat:1993:DSC** Charbel Farhat, Po-Shu Chen, and François-Xavier Roux. The dual Schur complement method with well-posed local Neumann problems: regularization with a perturbed Lagrangian formulation. *SIAM Journal on Scientific Computing*, 14(3):752–759, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FCZE14] **Flegg:2014:ATR** Mark B. Flegg, S. Jonathan Chapman, Likun Zheng, and Radek Erban. Analysis of the two-regime method on square meshes. *SIAM Journal on Scientific Computing*, 36(3):B561–B588, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FD03] **Froyland:2003:DLN** Gary Froyland and Michael Dellnitz. Detecting and locating near-optimal almost-invariant sets and cycles. *SIAM Journal on Scientific Computing*, 24(6):1839–1863, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38911>.
- [FDE+06] **Franzone:2006:AST** Piero Colli Franzone, Peter Deuffhard, Bodo Erdmann, Jens Lang, and Luca F. Pavarino. Adaptivity in space and time for reaction-diffusion systems in electrocardiology. *SIAM Journal on Scientific Computing*, 28(3):942–962, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63478.html.

Friedrich:2007:EMC

- [FDFW07] F. Friedrich, L. Demaret, H. Führ, and K. Wicker. Efficient moment computation over polygonal domains with an application to rapid wedgelet approximation. *SIAM Journal on Scientific Computing*, 29(2): 842–863, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FEL18] F. Friedrich, L. Demaret, H. Führ, and K. Wicker. Efficient moment computation over polygonal domains with an application to rapid wedgelet approximation. *SIAM Journal on Scientific Computing*, 40(1): A199–A223, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Feinberg:2018:MPC

Jonathan Feinberg, Vinzenz Gregor Eck, and Hans Peter Langtangen. Multivariate polynomial chaos expansions with dependent variables. *SIAM Journal on Scientific Computing*, 40(1): A199–A223, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fox:2020:SAI

- [FDH+20] Alyson Fox, James Diffenderfer, Jeffrey Hittinger, Geoffrey Sanders, and Peter Lindstrom. Stability analysis of inline ZFP compression for floating-point data in iterative methods. *SIAM Journal on Scientific Computing*, 42(5):A2701–A2730, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FEM08] Helmer André Friis, Michael G. Edwards, and Johannes Mykkeltveit. Symmetric positive definite flux-continuous full-tensor finite-volume schemes on unstructured cell-centered triangular grids. *SIAM Journal on Scientific Computing*, 31(2): 1192–1220, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Friis:2008:SPD

Helmer André Friis, Michael G. Edwards, and Johannes Mykkeltveit. Symmetric positive definite flux-continuous full-tensor finite-volume schemes on unstructured cell-centered triangular grids. *SIAM Journal on Scientific Computing*, 31(2): 1192–1220, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fietier:2013:MPM

- [FDS13] Nicolas Fiétier, Ömer Demirel, and Ivo F. Sbalzarini. A meshless particle method for Poisson and diffusion problems with discontinuous coefficients and inhomogeneous boundary conditions. *SIAM Journal on Scientific Computing*, 35(6):A2469–A2493, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Fer98] Lars Ferm. The number of coarse-grid iterations every cycle for the two-grid method. *SIAM Journal on Scientific Computing*, 19(2):493–501, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23431>.

Ferm:1998:NCG

Lars Ferm. The number of coarse-grid iterations every cycle for the two-grid method. *SIAM Journal on Scientific Computing*, 19(2):493–501, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23431>.

- [FF94] **Fischer:1994:AWP** Bernd Fischer and Roland W. Freund. On adaptive weighted polynomial preconditioning for Hermitian positive definite matrices. *SIAM Journal on Scientific Computing*, 15(2):408–426, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [FF05] **Fengler:2005:NGS** M. J. Fengler and W. Freeden. A nonlinear Galerkin scheme involving vector and tensor spherical harmonics for solving the incompressible Navier–Stokes equation on the sphere. *SIAM Journal on Scientific Computing*, 27(3):967–994, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_61256.html.
- [FF15] **Fatone:2015:OCN** L. Fatone and D. Funaro. Optimal collocation nodes for fractional derivative operators. *SIAM Journal on Scientific Computing*, 37(3):A1504–A1524, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FFK⁺14] **Falgout:2014:PTI** R. D. Falgout, S. Friedhoff, Tz. V. Kolev, S. P. MacLachlan, and J. B. Schroder. Parallel time integration with multigrid. *SIAM Journal on Scientific Computing*, 36(6):C635–C661, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FFMT96] **Fan:1996:PII** Qing Fan, P. A. Forsyth, J. R. F. McMacken, and Wei-Pai Tang. Performance issues for iterative solvers in device simulation. *SIAM Journal on Scientific Computing*, 17(1):100–117, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [FFS07] **Fritzsche:2007:ECG** David Fritzsche, Andreas Frommer, and Daniel B. Szyld. Extensions of certain graph-based algorithms for preconditioning. *SIAM Journal on Scientific Computing*, 29(5):2144–2161, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FFSS13] **Fritzsche:2013:OBG** David Fritzsche, Andreas Frommer, Stephen D. Shank,

- and Daniel B. Szyld. Overlapping blocks by growing a partition with applications to preconditioning. *SIAM Journal on Scientific Computing*, 35(1):A453–A473, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FG98] **Frommer:1998:RGS** [FGL09] Andreas Frommer and Uwe Glässner. Restarted GMRES for shifted linear systems. *SIAM Journal on Scientific Computing*, 19(1):15–26, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30456>.
- [FGH⁺08] **Fugenschuh:2008:DOA** [FGM95] A. Fugenschuh, S. Göttlich, M. Herty, A. Klar, and A. Martin. A discrete optimization approach to large scale supply networks based on partial differential equations. *SIAM Journal on Scientific Computing*, 30(3):1490–1507, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FGHO97] **Fierro:1997:RTT** [FGM08] R. D. Fierro, G. H. Golub, P. C. Hansen, and D. P. O’Leary. Regularization by truncated total least squares. *SIAM Journal on Scientific Computing*, 18(4):1223–1241, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26383>.
- Faou:2009:CSQ** [FGL09] Erwan Faou, Vasile Gradinaru, and Christian Lubich. Computing semiclassical quantum dynamics with Hagedorn wavepackets. *SIAM Journal on Scientific Computing*, 31(4):3027–3041, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Forsgren:1995:CMN** [FGM95] A. Forsgren, P. E. Gill, and W. Murray. Computing modified Newton directions using a partial Cholesky factorization. *SIAM Journal on Scientific Computing*, 16(1):139–150, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Figueroa:2008:AMF** [FGM08] Leonardo E. Figueroa, Gabriel N. Gatica, and Antonio Márquez. Augmented mixed finite element methods for the stationary Stokes equations. *SIAM Journal on Scientific Computing*, 31(2):1082–1119, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [FGMP13] **Fai:2013:IBM** Thomas G. Fai, Boyce E. Griffith, Yoichiro Mori, and Charles S. Peskin. Immersed boundary method for variable viscosity and variable density problems using fast constant-coefficient linear solvers I: Numerical method and results. *SIAM Journal on Scientific Computing*, 35(5): B1132–B1161, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See erratum [FGMP14a].
- [FGMP14a] **Fai:2014:EIB** Thomas G. Fai, Boyce E. Griffith, Yoichiro Mori, and Charles S. Peskin. Erratum: Immersed Boundary Method for Variable Viscosity and Variable Density Problems Using Fast Constant-Coefficient Linear Solvers I: Numerical Method and Results. *SIAM Journal on Scientific Computing*, 36(4): B776, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See [FGMP13].
- [FGMP14b] **Fai:2014:IBM** Thomas G. Fai, Boyce E. Griffith, Yoichiro Mori, and Charles S. Peskin. Immersed boundary method for variable viscosity and variable density problems using fast constant-coefficient linear solvers II: Theory. *SIAM Journal on Scientific Computing*, 36(3): B589–B621, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FGN93] **Freund:1993:ILA** Roland W. Freund, Martin H. Gutknecht, and Noël M. Nachtigal. An implementation of the look-ahead Lanczos algorithm for non-Hermitian matrices. *SIAM Journal on Scientific Computing*, 14(1):137–158, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FGO20] **Farrell:2020:ALP** P. E. Farrell and P. A. Gazca-Orozco. An augmented Lagrangian preconditioner for implicitly constituted non-Newtonian incompressible flow. *SIAM Journal on Scientific Computing*, 42(6):B1329–B1349, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FGS14] **Fernandez:2014:ECS** Miguel A. Fernández, Jean-Frédéric Gerbeau, and Savio Smaldone. Explicit coupling schemes for a fluid-fluid interaction problem arising in hemodynamics. *SIAM Journal on Scientific Computing*, 36(6):A2557–A2583, 2014. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Farago:2006:DMP

[FH06]

István Faragó and Róbert Horváth. Discrete maximum principle and adequate discretizations of linear parabolic problems. *SIAM Journal on Scientific Computing*, 28(6):2313–2336, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fasi:2021:GES

[FH21]

Massimiliano Fasi and Nicholas J. Higham. Generating extreme-scale matrices with specified singular values or condition number. *SIAM Journal on Scientific Computing*, 43(1):A663–A684, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Farrell:2013:ADA

[FHFR13]

P. E. Farrell, D. A. Ham, S. W. Funke, and M. E. Rognes. Automated derivation of the adjoint of high-level transient finite element programs. *SIAM Journal on Scientific Computing*, 35(4):C369–C393, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Farrell:2019:AAC

[FHFR19]

P. E. Farrell, J. E. Hake, S. W. Funke, and M. E.

Rognes. Automated adjoints of coupled PDE–ODE systems. *SIAM Journal on Scientific Computing*, 41(3):C219–C244, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fang:2018:HOM

[FHH⁺18]

Fuhui Fang, Jingfang Huang, Gary Huber, J. Andrew McCammon, and Bo Zhang. Hierarchical orthogonal matrix generation and matrix–vector multiplications in rigid body simulations. *SIAM Journal on Scientific Computing*, 40(3):A1345–A1361, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fournier:2013:DGD

[FHL13]

D. Fournier, R. Herbin, and R. Le Tellier. Discontinuous Galerkin discretization and *hp*-refinement for the resolution of the neutron transport equation. *SIAM Journal on Scientific Computing*, 35(2):A936–A956, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fasi:2023:MMM

[FHL⁺23]

Massimiliano Fasi, Nicholas J. Higham, Florent Lopez, Theo Mary, and Mantas Mikaitis. Matrix multiplication in multiword arithmetic: Error analysis and application to

- GPU tensor cores. *SIAM Journal on Scientific Computing*, 45(1):C1–C19, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1465032>. [FJ99]
- [FHR14] J. Fohring, E. Haber, and L. Ruthotto. Geophysical imaging of fluid flow in porous media. *SIAM Journal on Scientific Computing*, 36(5):S218–S236, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FJHM19]
- [Fie98] Martyn R. Field. Optimizing a parallel conjugate gradient solver. *SIAM Journal on Scientific Computing*, 19(1):27–37, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30220>. [FJP99]
- [Fis19] Marina Fischer. Fast and parallel Runge–Kutta approximation of fractional evolution equations. *SIAM Journal on Scientific Computing*, 41(2):A927–A947, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FJP⁺11]
- Fevens:1999:ABC**
Thomas Fevens and Hong Jiang. Absorbing boundary conditions for the Schrödinger equation. *SIAM Journal on Scientific Computing*, 21(1):255–282, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27705>.
- Fuenzalida:2019:UQM**
Consuelo Fuenzalida, Carlos Jerez-Hanckes, and Ryan G. McClarren. Uncertainty quantification for multigroup diffusion equations using sparse tensor approximations. *SIAM Journal on Scientific Computing*, 41(3):B545–B575, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Freitag:1999:PAM**
Lori Freitag, Mark Jones, and Paul Plassmann. A parallel algorithm for mesh smoothing. *SIAM Journal on Scientific Computing*, 20(6):2023–2040, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32320>.
- Fu:2011:FIM**
Zhisong Fu, Won-Ki Jeong, Yongsheng Pan, Robert M.

- Kirby, and Ross T. Whitaker. A fast iterative method for solving the eikonal equation on triangulated surfaces. *SIAM Journal on Scientific Computing*, 33(5): 2468–2488, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2468_s1
- [FK97] P. A. Forsyth and M. C. Kropinski. Monotonicity considerations for saturated-unsaturated subsurface flow. *SIAM Journal on Scientific Computing*, 18(5):1328–1354, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26582>.
- [FK00a] W. R. Ferng and C. T. Kelley. Mesh independence of matrix-free methods for path following. *SIAM Journal on Scientific Computing*, 21(5): 1835–1850, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33936>.
- [FK00b] Aaron L. Fogelson and James P. Keener. Immersed interface methods for Neumann and related problems in two and three dimensions. *SIAM Journal on Scientific Computing*, 22(5): 1630–1654, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32754>.
- [FK18] P. A. Forsyth and M. C. Kropinski. Monotonicity considerations for saturated-unsaturated subsurface flow. *SIAM Journal on Scientific Computing*, 40(1):B228–B258, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FK19] Jan Friedrich and Oliver Kolb. Maximum principle satisfying CWENO schemes for nonlocal conservation laws. *SIAM Journal on Scientific Computing*, 41(2): A973–A988, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FK21] Pei Fu and Gunilla Kreiss. High order cut discontinuous Galerkin methods for hyperbolic conservation laws in one space dimension. *SIAM Journal on Scientific Computing*, 43(4):A2404–A2424, 2021.

???? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Frommer:2014:AAB

[FKK⁺14]

A. Frommer, K. Kahl, S. Krieg, B. Leder, and M. Rottmann. Adaptive aggregation-based domain decomposition multigrid for the lattice Wilson–Dirac operator. *SIAM Journal on Scientific Computing*, 36(4):A1581–A1608, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fabien:2019:MPC

[FKMR19]

Maurice S. Fabien, Matthew G. Knepley, Richard T. Mills, and Béatrice M. Rivière. Manycore parallel computing for a hybridizable discontinuous Galerkin nested multigrid method. *SIAM Journal on Scientific Computing*, 41(2):C73–C96, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fukaya:2020:SCQ

[FKN⁺20]

Takeshi Fukaya, Ramaseshan Kannan, Yuji Nakatsukasa, Yusaku Yamamoto, and Yuka Yanagisawa. Shifted Cholesky QR for computing the QR factorization of ill-conditioned matrices. *SIAM Journal on Scientific Computing*, 42(1):A477–A503, ??? 2020. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fan:2017:CCS

[FKQS17]

Xiaolin Fan, Jisheng Kou, Zhonghua Qiao, and Shuyu Sun. A componentwise convex splitting scheme for diffuse interface models with van der Waals and Peng–Robinson equations of state. *SIAM Journal on Scientific Computing*, 39(1):B1–B28, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Frommer:2022:MAV

Andreas Frommer, Mostafa Nasr Khalil, and Gustavo Ramirez-Hidalgo. A multilevel approach to variance reduction in the stochastic estimation of the trace of a matrix. *SIAM Journal on Scientific Computing*, 44(4):A2536–A2556, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1441894>.

Flemisch:2010:ESM

[FKTW10]

Bernd Flemisch, Manfred Kaltenbacher, Simon Triebenbacher, and Barbara I. Wohlmuth. The equivalence of standard and mixed finite element methods in applications to elasto-acoustic interaction. *SIAM Journal on*

- [FL04] *Scientific Computing*, 32(4): 1980–2006, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FKW13] **Fu:2013:FIM**
Zhisong Fu, Robert M. Kirby, and Ross T. Whitaker. A fast iterative method for solving the eikonal equation on tetrahedral domains. *SIAM Journal on Scientific Computing*, 35(5):C473–C494, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FL97] **Ferm:1997:TGS**
Lars Ferm and Per Lötstedt. Two-grid solution of shock problems. *SIAM Journal on Scientific Computing*, 18(6): 1533–1552, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28042>.
- [FL02] **Ferm:2002:AEC**
Lars Ferm and Per Lötstedt. Adaptive error control for steady state solutions of inviscid flow. *SIAM Journal on Scientific Computing*, 23(5): 1777–1798, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36745>.
- Filbet:2004:NSS**
Francis Filbet and Philippe Laurençot. Numerical simulation of the Smoluchowski coagulation equation. *SIAM Journal on Scientific Computing*, 25(6):2004–2028, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42913>.
- [FL08] **Friedlander:2008:GFT**
Michael P. Friedlander and Sven Leyffer. Global and finite termination of a two-phase augmented Lagrangian filter method for general quadratic programs. *SIAM Journal on Scientific Computing*, 30(4):1706–1729, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FL18] **Feng:2018:AIS**
Zhe Feng and Jinglai Li. An adaptive independence sampler MCMC algorithm for Bayesian inferences of functions. *SIAM Journal on Scientific Computing*, 40(3): A1301–A1321, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FL19] **Fu:2019:MCT**
Kai Fu and Dong Liang. A mass-conservative temporal second order and spatial

- fourth order characteristic finite volume method for atmospheric pollution advection diffusion problems. *SIAM Journal on Scientific Computing*, 41(6):B1178–B1210, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FLF11] **Fornberg:2011:SCG** Bengt Fornberg, Elisabeth Larsson, and Natasha Flyer. Stable computations with Gaussian radial basis functions. *SIAM Journal on Scientific Computing*, 33(2):869–892, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p869_s1.
- [FLi13] **Fliss:2013:DNA** Sonia Fliss. A Dirichlet-to-Neumann approach for the exact computation of guided modes in photonic crystal waveguides. *SIAM Journal on Scientific Computing*, 35(2):B438–B461, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FLM⁺05] **Farahat:2005:ARH** Ayman Farahat, Thomas Lofaro, Joel C. Miller, Gregory Rae, and Lesley A. Ward. Authority rankings from HITS, PageRank, and SALSA: Existence, uniqueness, and effect of initialization. *SIAM Journal on Scientific Computing*, 27(4):1181–1201, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_41287.html.
- [FLU⁺20] **Farcas:2020:MAS** I.-G. Farcas, J. Latz, E. Ullmann, T. Neckel, and H.-J. Bungartz. Multilevel adaptive sparse Leja approximations for Bayesian inverse problems. *SIAM Journal on Scientific Computing*, 42(1):A424–A451, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FLX21] **Fang:2021:ESH** Sheng Fang, Yong-Jin Liu, and Xianzhu Xiong. Efficient sparse Hessian-based semismooth Newton algorithms for Dantzig selector. *SIAM Journal on Scientific Computing*, 43(6):A4147–A4171, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FM99] **Frommer:1999:FCB** Andreas Frommer and Peter Maass. Fast CG-based methods for Tikhonov–Phillips regularization. *SIAM Journal on Scientific Computing*, 20(5):1831–1850, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-

- 7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31331>.
- [FM07] **Frolkovic:2007:HRF**
Peter Frolkovič and Karol Mikula. High-resolution flux-based level set method. *SIAM Journal on Scientific Computing*, 29(2):579–597, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FM11] **Fjordholm:2011:VPF**
Ulrik S. Fjordholm and Sidhartha Mishra. Vorticity preserving finite volume schemes for the shallow water equations. *SIAM Journal on Scientific Computing*, 33(2):588–611, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i2/p588_s1.
- [FM12] **Fasshauer:2012:SEG**
Gregory E. Fasshauer and Michael J. McCourt. Stable evaluation of Gaussian radial basis function interpolants. *SIAM Journal on Scientific Computing*, 34(2):A737–A762, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FM16] **Friedlander:2016:LRS**
Michael P. Friedlander and Ives Macêdo. Low-rank spectral optimization via gauge duality. *SIAM Journal on Scientific Computing*, 38(3):A1616–A1638, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FMB13] **Friedhoff:2013:LFA**
S. Friedhoff, S. MacLachlan, and C. Börgers. Local Fourier analysis of space–time relaxation and multigrid schemes. *SIAM Journal on Scientific Computing*, 35(5):S250–S276, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FMM98] **Fiard:1998:FOS**
J. M. Fiard, T. A. Manteuffel, and S. F. McCormick. First-order system least squares (FOSLS) for convection-diffusion problems: Numerical results. *SIAM Journal on Scientific Computing*, 19(6):1958–1979, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30116>.
- [FMOS17] **Falgout:2017:MRT**
R. D. Falgout, T. A. Manteuffel, B. O’Neill, and J. B. Schroder. Multigrid reduction in time for nonlinear parabolic problems: a case study. *SIAM Journal on Scientific Computing*, 39(5):S298–S322, 2017. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[FMS17]

Filbet:2006:SBE

[FMP06] Francis Filbet, Clément Mouhot, and Lorenzo Pareschi. Solving the Boltzmann equation in $N \log_2 N$. *SIAM Journal on Scientific Computing*, 28(3):1029–1053, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Frank:2006:LPN

[FMR06] Jason Frank, Brian E. Moore, and Sebastian Reich. Linear PDEs and numerical methods that preserve a multisymplectic conservation law. *SIAM Journal on Scientific Computing*, 28(1):260–277, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62827.html.

Fenu:2013:NAP

[FMR13] C. Fenu, D. Martin, L. Reichel, and G. Rodriguez. Network analysis via partial spectral factorization and Gauss quadrature. *SIAM Journal on Scientific Computing*, 35(4):A2046–A2068, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Fox:2017:NMG

Alyson Fox, Thomas Mantueffel, and Geoffrey Sanders. Numerical methods for Gremban’s expansion of signed graphs. *SIAM Journal on Scientific Computing*, 39(5):S945–S968, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Farrell:2019:ALP

[FMW19]

Patrick E. Farrell, Lawrence Mitchell, and Florian Wechsung. An augmented Lagrangian preconditioner for the 3D stationary incompressible Navier–Stokes equations at high Reynolds number. *SIAM Journal on Scientific Computing*, 41(5):A3073–A3096, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Farquhar:2016:GAA

[FMYT16]

Megan E. Farquhar, Timothy J. Moroney, Qianqian Yang, and Ian W. Turner. GPU accelerated algorithms for computing matrix function vector products with applications to exponential integrators and fractional diffusion. *SIAM Journal on Scientific Computing*, 38(3):C127–C149, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [FN94] Roland W. Freund and Noël M. Nachtigal. An implementation of the QMR method based on coupled two-term recurrences. *SIAM Journal on Scientific Computing*, 15(2):313–337, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [FNNB05] **Freund:1994:IQM** Haoying Fu, Michael K. Ng, Mila Nikolova, and Jesse L. Barlow. Efficient minimization methods of mixed $l - 2 - l_1$ and $l_1 - l_1$ norms for image restoration. *SIAM Journal on Scientific Computing*, 27(6):1881–1902, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61507.html.
- [FNB06] **Fu:2006:STL** Haoying Fu, Michael K. Ng, and Jesse L. Barlow. Structured total least squares for color image restoration. *SIAM Journal on Scientific Computing*, 28(3):1100–1119, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FNL⁺19] **Fernando:2019:MPS** Milinda Fernando, David Neilsen, Hyun Lim, Eric Hirschmann, and Hari Sundar. Massively parallel simulations of binary black hole intermediate-mass-ratio inspirals. *SIAM Journal on Scientific Computing*, 41(2):C97–C138, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FO08] **Fang:2008:NPM** F. Fang and C. W. Oosterlee. A novel pricing method for European options based on Fourier-cosine series expansions. *SIAM Journal on Scientific Computing*, 31(2):826–848, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FO19] **Finlay:2019:IAM** Chris Finlay and Adam Oberman. Improved accuracy
- [FNTB18] **Filip:2018:RMA** Silviu-Ioan Filip, Yuji Nakatsukasa, Lloyd N. Trefethen, and Bernhard Beckermann. Rational minimax approximation via adaptive barycentric representations. *SIAM Journal on Scientific Computing*, 40(4):A2427–A2455, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- of monotone finite difference schemes on point clouds and regular grids. *SIAM Journal on Scientific Computing*, 41(5):A3097–A3117, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FP07]
- Fox:2021:PCC**
- [FÖ21] Jamie Fox and Giray Ökten. Polynomial chaos as a control variate method. *SIAM Journal on Scientific Computing*, 43(3):A2268–A2294, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FP14]
- Fornberg:1995:PAP**
- [For95] Bengt Fornberg. A pseudospectral approach for polar and spherical geometries. *SIAM Journal on Scientific Computing*, 16(5):1071–1081, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FR10]
- Fornberg:2006:PPF**
- [For06] Bengt Fornberg. A pseudospectral fictitious point method for high order initial-boundary value problems. *SIAM Journal on Scientific Computing*, 28(5):1716–1729, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [FR15]
- Fornberg:2007:SAF**
- Bengt Fornberg and Cécile Piret. A stable algorithm for flat radial basis functions on a sphere. *SIAM Journal on Scientific Computing*, 30(1):60–80, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Fox:2014:CVC**
- Colin Fox and Albert Parker. Convergence in variance of Chebyshev accelerated Gibbs samplers. *SIAM Journal on Scientific Computing*, 36(1):A124–A147, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Fidkowski:2010:EAA**
- Krzysztof J. Fidkowski and Philip L. Roe. An entropy adjoint approach to mesh refinement. *SIAM Journal on Scientific Computing*, 32(3):1261–1287, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Filbet:2015:HHN**
- Francis Filbet and Thomas Rey. A hierarchy of hybrid numerical methods for multi-scale kinetic equations. *SIAM Journal on Scientific Computing*, 37(3):A1218–A1247, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [FR19] **Fung:2019:UWA**
 Samy Wu Fung and Lars Ruthotto. An uncertainty-weighted asynchronous ADMM method for parallel PDE parameter estimation. *SIAM Journal on Scientific Computing*, 41(5):S129–S148, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FR23] **Fish:2023:ATS**
 Alex C. Fish and Daniel R. Reynolds. Adaptive time step control for multirate infinitesimal methods. *SIAM Journal on Scientific Computing*, 45(2):A958–A984, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1479798>.
- [Fra98] **Fraley:1998:AMB**
 Chris Fraley. Algorithms for model-based Gaussian hierarchical clustering. *SIAM Journal on Scientific Computing*, 20(1):270–281, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31145>.
- [Fre93] **Freund:1993:TFQ**
 Roland W. Freund. A transpose-free quasi-minimal residual algorithm for non-Hermitian linear systems. *SIAM Journal on Scientific Computing*, 14(2):470–482, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Fro12] **Froese:2012:NME**
 Brittany D. Froese. A numerical method for the elliptic Monge–Ampère equation with transport boundary conditions. *SIAM Journal on Scientific Computing*, 34(3):A1432–A1459, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FRS19] **Fortunato:2019:EOC**
 Daniel Fortunato, Chris H. Rycroft, and Robert Saye. Efficient operator-coarsening multigrid schemes for local discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 41(6):A3913–A3937, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FS96] **Fiorentino:1996:MMS**
 Giuseppe Fiorentino and Stefano Serra. Multigrid methods for symmetric positive definite block Toeplitz matrices with non-negative generating functions. *SIAM Journal on Scientific Computing*, 17(5):1068–1081, September 1996. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27151>.
- [FS01] **Fang:2001:TEE** [FS08] C. C. Fang and Tony W. H. Sheu. Two element-by-element iterative solutions for shallow water equations. *SIAM Journal on Scientific Computing*, 22(6):2075–2092, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36088>.
- [FS02] **Flyer:2002:CSF** [FS11] Natasha Flyer and Paul N. Swarztrauber. The convergence of spectral and finite difference methods for initial-boundary value problems. *SIAM Journal on Scientific Computing*, 23(5):1731–1751, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37416>.
- [FS05] **Filbet:2005:AHM** [FS12] Francis Filbet and Chi-Wang Shu. Approximation of hyperbolic models for chemosensitive movement. *SIAM Journal on Scientific Computing*, 27(3):850–872, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Frommer:2008:SCR** Andreas Frommer and Valeria Simoncini. Stopping criteria for rational matrix functions of Hermitian and symmetric matrices. *SIAM Journal on Scientific Computing*, 30(3):1387–1412, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Fong:2011:LIA** David Chin-Lung Fong and Michael Saunders. LSMR: An iterative algorithm for sparse least-squares problems. *SIAM Journal on Scientific Computing*, 33(5):2950–2971, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2950_s1.
- Friedlander:2012:HDS** Michael P. Friedlander and Mark Schmidt. Hybrid deterministic-stochastic methods for data fitting. *SIAM Journal on Scientific Computing*, 34(3):A1380–A1405, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See erratum [FS13].

- [FS13] **Friedlander:2013:EHD**
 Michael P. Friedlander and Mark Schmidt. Erratum: Hybrid Deterministic-Stochastic Methods for Data Fitting. *SIAM Journal on Scientific Computing*, 35(4):B950–B951, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See [FS12].
- [FS14] **Falgout:2014:NGC**
 Robert D. Falgout and Jacob B. Schroder. Non-Galerkin coarse grids for algebraic multigrid. *SIAM Journal on Scientific Computing*, 36(3):C309–C334, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FS22] **Fernando:2022:SLT**
 Milinda Fernando and Hari Sundar. Scalable local timestepping on octree grids. *SIAM Journal on Scientific Computing*, 44(2):C156–C183, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M136013X>.
- [FSV22] **Friesecke:2022:GCG**
 Gero Friesecke, Andreas S. Schulz, and Daniela Vögler. Genetic column generation: Fast computation of high-dimensional multimarginal optimal transport problems. *SIAM Journal on Scientific Computing*, 44(3):A1632–A1654, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140732X>.
- [FSvdV98a] **Fokkema:1998:AIN**
 Diederik R. Fokkema, Gerard L. G. Sleijpen, and Henk A. van der Vorst. Accelerated inexact Newton schemes for large systems of nonlinear equations. *SIAM Journal on Scientific Computing*, 19(2):657–674, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29614>; <http://epubs.siam.org/sam-bin/dbq/toc/SISC/19/2>.
- [FSvdV98b] **Fokkema:1998:JDS**
 Diederik R. Fokkema, Gerard L. G. Sleijpen, and Henk A. van der Vorst. Jacobi–Davidson style QR and QZ algorithms for the reduction of matrix pencils. *SIAM Journal on Scientific Computing*, 20(1):94–125, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30007>.

- [FT03] **Ford:2003:CKP** Judith M. Ford and Eugene E. Tyrtshnikov. Combining Kronecker product approximation with discrete wavelet transforms to solve dense, function-related linear systems. *SIAM Journal on Scientific Computing*, 25(3):961–981, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42168>.
- [FUNB18] **Farcas:2018:NUA** Ionut-Gabriel Farcas, Benjamin Uekermann, Tobias Neckel, and Hans-Joachim Bungartz. Nonintrusive uncertainty analysis of fluid-structure interaction with spatially adaptive sparse grids and polynomial chaos expansion. *SIAM Journal on Scientific Computing*, 40(2):B457–B482, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FTY15] **Feng:2015:LTN** Xinlong Feng, Tao Tang, and Jiang Yang. Long time numerical simulations for phase-field problems using p -adaptive spectral deferred correction methods. *SIAM Journal on Scientific Computing*, 37(1):A271–A294, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FV01] **Frank:2001:CDB** J. Frank and C. Vuik. On the construction of deflation-based preconditioners. *SIAM Journal on Scientific Computing*, 23(2):442–462, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37323>.
- [Fu21] **Fu:2021:UAS** Guosheng Fu. Uniform auxiliary space preconditioning for HDG methods for elliptic operators with a parameter dependent low order term. *SIAM Journal on Scientific Computing*, 43(6):A3912–A3937, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FV06] **Falcone:2006:FDA** Maurizio Falcone and Stefano Finzi Vita. A finite-difference approximation of a two-layer system for growing sandpiles. *SIAM Journal on Scientific Computing*, 28(3):1120–1132, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [FVV21] **Fairbanks:2021:MHD**
 Hillary R. Fairbanks, Umberto Villa, and Panayot S. Vassilevski. Multilevel hierarchical decomposition of finite element white noise with application to multilevel Markov chain Monte Carlo. *SIAM Journal on Scientific Computing*, 43(5):S293–S316, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FW97] **Foster:1997:PAS**
 Ian T. Foster and Patrick H. Worley. Parallel algorithms for the spectral transform method. *SIAM Journal on Scientific Computing*, 18(3):806–837, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26689>.
- [FWA⁺11] **Flath:2011:FAB**
 H. P. Flath, L. C. Wilcox, V. Akçelik, J. Hill, B. van Bloemen Waanders, and O. Ghattas. Fast algorithms for Bayesian uncertainty quantification in large-scale linear inverse problems based on low-rank partial Hessian approximations. *SIAM Journal on Scientific Computing*, 33(1):407–432, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p407_s1.
- [FY14] **Filbet:2014:NSK**
 Francis Filbet and Chang Yang. Numerical simulations of kinetic models for chemotaxis. *SIAM Journal on Scientific Computing*, 36(3):B348–B366, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [FZB20] **Fu:2020:AAD**
 Anqi Fu, Junzi Zhang, and Stephen Boyd. Anderson accelerated Douglas–Rachford splitting. *SIAM Journal on Scientific Computing*, 42(6):A3560–A3583, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GAD⁺21] **Glusa:2021:FSF**
 Christian Glusa, Harbir Antil, Marta D’Elia, Bart van Bloemen Waanders, and Chester J. Weiss. A fast solver for the fractional Helmholtz equation. *SIAM Journal on Scientific Computing*, 43(2):A1362–A1388, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GAMV13] **Ghysels:2013:HGC**
 P. Ghysels, T. J. Ashby, K. Meerbergen, and W. Vanroose. Hiding global communication latency in the GM-

- RES algorithm on massively parallel machines. *SIAM Journal on Scientific Computing*, 35(1):C48–C71, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gar97]
- [GaP08] Anna Gambin, Piotr Krzyanowski, and Piotr Pokarowski. Aggregation algorithms for perturbed Markov chains with applications to networks modeling. *SIAM Journal on Scientific Computing*, 31(1): 45–73, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Gambin:2008:AAP**
- [Gar94] Marc Garbey. Domain decomposition to solve transition layers and asymptotics. *SIAM Journal on Scientific Computing*, 15(4):866–891, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Garbey:1994:DDS**
- [Gar96] Marc Garbey. A Schwarz alternating procedure for singular perturbation problems. *SIAM Journal on Scientific Computing*, 17(5): 1175–1201, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25843>. **Garbey:1996:SAP**
- [Gar00] Marc Garbey. On some applications of the superposition principle with Fourier basis. *SIAM Journal on Scientific Computing*, 22(3): 1087–1116, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32813>. **Garbey:2000:SAS**
- [Gar05] M. Garbey. Acceleration of the Schwarz method for elliptic problems. *SIAM Journal on Scientific Computing*, 26(6):1871–1893, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41634>. **Garbey:2005:ASM**
- [Gär09] K. Gärtner. Existence of bounded discrete steady-state **Gardiner:1997:SMS**
- Judith D. Gardiner. A stabilized matrix sign function algorithm for solving algebraic Riccati equations. *SIAM Journal on Scientific Computing*, 18(5): 1393–1411, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25907>.
- [Gär09] K. Gärtner. Existence of bounded discrete steady-state **Gärtner:2009:EBD**

solutions of the Van Roosbroeck system on boundary conforming Delaunay grids. *SIAM Journal on Scientific Computing*, 31(2):1347–1362, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gassner:2013:SSD

[Gas13]

Gregor J. Gassner. A skew-symmetric discontinuous Galerkin spectral element discretization and its relation to SBP–SAT finite difference methods. *SIAM Journal on Scientific Computing*, 35(3):A1233–A1253, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

García-Archilla:1998:LTS

[GASSS98]

B. García-Archilla, J. M. Sanz-Serna, and R. D. Skeel. Long-time-step methods for oscillatory differential equations. *SIAM Journal on Scientific Computing*, 20(3):930–963, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31385>.

Gopal:1998:SLP

[GB98]

Vipin Gopal and Lorenz T. Biegler. A successive linear programming approach for initialization and reinitialization after discontinuities of differential-algebraic

equations. *SIAM Journal on Scientific Computing*, 20(2):447–467, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30772>.

Goodyer:2006:ATE

[GB06a]

C. E. Goodyer and M. Berzins. Adaptive timestepping for elastohydrodynamic lubrication solvers. *SIAM Journal on Scientific Computing*, 28(2):626–650, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62209.html.

Gopaul:2006:AFO

[GB06b]

Ashvin Gopaul and Mudun Bhuruth. Analysis of a fourth-order scheme for a three-dimensional convection–diffusion model problem. *SIAM Journal on Scientific Computing*, 28(6):2075–2094, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ghosh:2012:CRS

[GB12]

Debojyoti Ghosh and James D. Baeder. Compact reconstruction schemes with weighted ENO limiting for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 34(3):A1678–A1706,

???? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Glusa:2020:SAD

[GBC⁺20]

Christian Glusa, Erik G. Boman, Edmond Chow, Sivasankaran Rajamanickam, and Daniel B. Szyld. Scalable asynchronous domain decomposition solvers. *SIAM Journal on Scientific Computing*, 42(6):C384–C409, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GBM22]

siam.org/sisc/resource/1/sjoce3/v32/i6/p3426_s1

Gbikpi-Benissan:2022:AMC

Guillaume Gbikpi-Benissan and Frédéric Magoulès. Asynchronous multiplicative coarse-space correction. *SIAM Journal on Scientific Computing*, 44(3):C237–C259, ????. 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432107>.

Green:2019:DFE

[GBCT10]

Caroline Gatti-Bono, Phillip Colella, and David Trebotich. A second-order accurate conservative front-tracking method in one dimension. *SIAM Journal on Scientific Computing*, 31(6):4795–4813, ????. 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GBS19]

Kevin R. Green, Tanner A. Bohn, and Raymond J. Spiteri. Direct function evaluation versus lookup tables: When to use which? *SIAM Journal on Scientific Computing*, 41(3):C194–C218, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gasperini:2022:MFE

[GBDD10]

Laura Grigori, Erik G. Boman, Simplicio Donfack, and Timothy A. Davis. Hypergraph-based unsymmetric nested dissection ordering for sparse LU factorization. *SIAM Journal on Scientific Computing*, 32(6):3426–3446, ????. 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v32/i6/p3426_s1

[GBS⁺22]

David Gasperini, Hans-Peter Biese, Udo Schroeder, Xavier Antoine, and Christophe Geuzaine. A MultiHarmonic finite element method for scattering problems with small-amplitude boundary deformations. *SIAM Journal on Scientific Computing*, 44(2):B197–B223, ????. 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432107>

- //epubs.siam.org/doi/10.1137/21M1432363.
- [GC97] Benqi Guo and Weiming Cao. Additive Schwarz methods for the h - p version of the finite element method in two dimensions. *SIAM Journal on Scientific Computing*, 18(5):1267–1288, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29436>. [GC17a]
- Guo:1997:ASM**
- [GC16a] Debojyoti Ghosh and Emil M. Constantinescu. Semi-implicit time integration of atmospheric flows with characteristic-based flux partitioning. *SIAM Journal on Scientific Computing*, 38(3):A1848–A1875, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GC17b]
- Ghosh:2016:SIT**
- [GC16b] Wei Guo and Yingda Cheng. A sparse grid discontinuous Galerkin method for high-dimensional transport equations and its application to kinetic simulations. *SIAM Journal on Scientific Computing*, 38(6):A3381–A3409, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GC19a]
- Guo:2016:SGD**
- Guo:2017:AMD**
- Wei Guo and Yingda Cheng. An adaptive multiresolution discontinuous Galerkin method for time-dependent transport equations in multidimensions. *SIAM Journal on Scientific Computing*, 39(6):A2962–A2992, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GC19b]
- Guo:2019:GQP**
- Andrew Glaws and Paul G. Constantine. Gaussian quadrature and polynomial approximation for one-dimensional ridge functions. *SIAM Journal on Scientific Computing*, 41(5):S106–S128, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gregory:2017:SME**
- A. Gregory and C. J. Cotter. A seamless multilevel ensemble transform particle filter. *SIAM Journal on Scientific Computing*, 39(6):A2684–A2701, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gong:2019:NEP**
- Shihua Gong and Xiaochuan Cai. A nonlinear elimination preconditioned inexact Newton method for heterogeneous hyperelasticity.

SIAM Journal on Scientific Computing, 41(5):S390–S408, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Granvilliers:2004:PEU

[GCB04]

Laurent Granvilliers, Jorge Cruz, and Pedro Barahona. Parameter estimation using interval computations. *SIAM Journal on Scientific Computing*, 26(2):591–612, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42685>.

Ghosh:2015:EIN

[GCB15]

Debojyoti Ghosh, Emil M. Constantinescu, and Jed Brown. Efficient implementation of nonlinear compact schemes on massively parallel platforms. *SIAM Journal on Scientific Computing*, 37(3):C354–C383, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Grigori:2018:LRA

[GCD18]

Laura Grigori, Sebastien Cayrols, and James W. Demmel. Low rank approximation of a sparse matrix based on LU factorization with column and row tournament pivoting. *SIAM Journal on Scientific Computing*, 40(2):C181–C209, ????. 2018. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gaburro:2021:WBF

Elena Gaburro, Manuel J. Castro, and Michael Dumbser. A well balanced finite volume scheme for general relativity. *SIAM Journal on Scientific Computing*, 43(6):B1226–B1251, ????. 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gorman:2019:RAS

[GCG⁺19]

Christopher Gorman, Gustavo Chávez, Pieter Ghysels, Théo Mary, François-Henry Rouet, and Xiaoye Sherry Li. Robust and accurate stopping criteria for adaptive randomized sampling in matrix-free hierarchically semiseparable construction. *SIAM Journal on Scientific Computing*, 41(5):S61–S85, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gonzalez:2021:SGM

[GCN21]

Ivan Gonzalez, Rustum Choksi, and Jean-Christophe Nave. A simple geometric method for navigating the energy landscape of centroidal Voronoi tessellations. *SIAM Journal on Scientific Computing*, 43(2):A1527–A1554, ????. 2021. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Gregory:2016:MET

[GCR16]

A. Gregory, C. J. Cotter, and S. Reich. Multilevel ensemble transform particle filtering. *SIAM Journal on Scientific Computing*, 38(3): A1317–A1338, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gallagher:2019:SQE

[GCS19]

Meurig T. Gallagher, Debajyoti Choudhuri, and David J. Smith. Sharp quadrature error bounds for the nearest-neighbor discretization of the regularized Stokeslet boundary integral equation. *SIAM Journal on Scientific Computing*, 41(1):B139–B152, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gumerov:2003:RCM

[GD03]

Nail A. Gumerov and Ramani Duraiswami. Recursions for the computation of multiple translation and rotation coefficients for the 3-D Helmholtz equation. *SIAM Journal on Scientific Computing*, 25(4):1344–1381, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39970>.

[GD07]

Gumerov:2007:FRB

Nail A. Gumerov and Ramani Duraiswami. Fast radial basis function interpolation via preconditioned Krylov iteration. *SIAM Journal on Scientific Computing*, 29(5): 1876–1899, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Guo:2022:PAG

[GDB⁺22]

Yue Guo, Felix Dietrich, Tom Bertalan, Danimir T. Doncevic, Manuel Dahmen, Ioannis G. Kevrekidis, and Qianxiao Li. Personalized algorithm generation: a case study in learning ODE integrators. *SIAM Journal on Scientific Computing*, 44(4): A1911–A1933, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1418629>.

Glusa:2023:ACC

[GDC⁺23]

Christian Glusa, Marta D’Elia, Giacomo Capodaglio, Max Gunzburger, and Pavel B. Bochev. An asymptotically compatible coupling formulation for nonlocal interface problems with jumps. *SIAM Journal on Scientific Computing*, 45(3):A1359–A1384, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<https://epubs.siam.org/doi/10.1137/22M1490351>.

Grigori:2007:PSF

[GDL07]

Laura Grigori, James W. Demmel, and Xiaoye S. Li. Parallel symbolic factorization for sparse LU with static pivoting. *SIAM Journal on Scientific Computing*, 29(3): 1289–1314, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GE96]

Gu:1996:EAC

Ming Gu and Stanley C. Eisenstat. Efficient algorithms for computing a strong rank-revealing QR factorization. *SIAM Journal on Scientific Computing*, 17(4): 848–869, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Geevers:2019:DCR

[Gee19]

Sjoerd Geevers. Doubling the convergence rate by pre- and post-processing the finite element approximation for linear wave problems. *SIAM Journal on Scientific Computing*, 41(6):A3779–A3805, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Guermond:2018:WBS

[GdLP+18]

Jean-Luc Guermond, Manuel Quezada de Luna, Bojan Popov, Christopher E. Kees, and Matthew W. Farthing. Well-balanced second-order finite element approximation of the shallow water equations with friction. *SIAM Journal on Scientific Computing*, 40(6): A3873–A3901, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GG94]

Greenbaum:1994:MMP

A. Greenbaum and L. Gurvits. Max-min properties of matrix factor norms. *SIAM Journal on Scientific Computing*, 15(2):348–358, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Gao:2014:MET

[GDLS14]

T. Gao, J. Duan, X. Li, and R. Song. Mean exit time and escape probability for dynamical systems driven by Lévy noises. *SIAM Journal on Scientific Computing*, 36(3): A887–A906, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GG95]

Gurvits:1995:FNM

L. Gurvits and A. Greenbaum. A further note on max-min properties of matrix factor norms. *SIAM Journal on*

- Scientific Computing*, 16(2): 496–499, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG03] **Golub:2003:SBS**
Gene H. Golub and Chen Greif. On solving block-structured indefinite linear systems. *SIAM Journal on Scientific Computing*, 24(6): 2076–2092, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37509>.
- [GG05] **Gordon:2005:CAR**
Dan Gordon and Rachel Gordon. Component-averaged row projections: a robust, block-parallel scheme for sparse linear systems. *SIAM Journal on Scientific Computing*, 27(3):1092–1117, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60945.html.
- [GG09] **Greenberg:2009:CAB**
J. M. Greenberg and Laurent Gosse. Chirplet approximation of band-limited, real signals made easy. *SIAM Journal on Scientific Computing*, 31(5):3922–3945, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG10] **Gupta:2010:ATI**
Anshul Gupta and Thomas George. Adaptive techniques for improving the performance of incomplete factorization preconditioning. *SIAM Journal on Scientific Computing*, 32(1):84–110, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG13] **Gander:2013:PPI**
Martin J. Gander and Stefan Güttel. PARAEXP: a parallel integrator for linear initial-value problems. *SIAM Journal on Scientific Computing*, 35(2):C123–C142, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG18] **Gockenbach:2018:CHP**
Mark S. Gockenbach and Elah Gorgin. On the convergence of a heuristic parameter choice rule for Tikhonov regularization. *SIAM Journal on Scientific Computing*, 40(4):A2694–A2719, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG19a] **Geldermans:2019:AHO**
P. Geldermans and A. Gillman. An adaptive high order direct solution technique

- for elliptic boundary value problems. *SIAM Journal on Scientific Computing*, 41(1): A292–A315, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG19b] **Glaubitz:2019:HOE**
Jan Glaubitz and Anne Gelb. High order edge sensors with ℓ^1 regularization for enhanced discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 41(2): A1304–A1330, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GG21] **Gosea:2021:ARA**
Ion Victor Gosea and Stefan Güttel. Algorithms for the rational approximation of matrix-valued functions. *SIAM Journal on Scientific Computing*, 43(5): A3033–A3054, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GGB22] **Gosea:2022:DDB**
Ion Victor Gosea, Serkan Gugercin, and Christopher Beattie. Data-driven balancing of linear dynamical systems. *SIAM Journal on Scientific Computing*, 44(1): A554–A582, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1411081>.
- [GGGL10] **Gleich:2010:IOI**
David F. Gleich, Andrew P. Gray, Chen Greif, and Tracy Lau. An inner-outer iteration for computing PageRank. *SIAM Journal on Scientific Computing*, 32(1):349–371, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GGK⁺04a] **Glimm:2004:SRP**
James Glimm, John W. Grove, Yonghee Kang, Taewon Lee, Xiaolin Li, David H. Sharp, Yan Yu, Kenny Ye, and Ming Zhao. Statistical Riemann problems and a composition law for errors in numerical solutions of shock physics problems. *SIAM Journal on Scientific Computing*, 26(2):666–697, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42753>.
- [GGK04b] **Gray:2004:DEH**
L. J. Gray, J. M. Glaeser, and T. Kaplan. Direct evaluation of hypersingular Galerkin surface integrals. *SIAM Journal on Scientific Computing*, 25(5): 1534–1556, September 2004. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40599>. [GGL09]
- Govaerts:2007:NMT**
- [GGKM07] W. Govaerts, R. Khoshsiar Ghaziani, Yu. A. Kuznetsov, and H. G. E. Meijer. Numerical methods for two-parameter local bifurcation analysis of maps. *SIAM Journal on Scientific Computing*, 29(6):2644–2667, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Glimm:1998:TDF**
- [GGL⁺98] James Glimm, John W. Grove, Xiao Lin Li, Keh ming Shyue, Yanni Zeng, and Qiang Zhang. Three-dimensional front tracking. *SIAM Journal on Scientific Computing*, 19(3):703–727, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29360>. [GGM01]
- Giraud:2007:CBE**
- [GGL07] L. Giraud, S. Gratton, and J. Langou. Convergence in backward error of relaxed GMRES. *SIAM Journal on Scientific Computing*, 29(2):710–728, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gaspar:2009:FAM**
- F. J. Gaspar, J. L. Gracia, and F. J. Lisbona. Fourier analysis for multigrid methods on triangular grids. *SIAM Journal on Scientific Computing*, 31(3):2081–2102, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Glimm:2000:RCA**
- James Glimm, John W. Grove, X. L. Li, and D. C. Tan. Robust computational algorithms for dynamic interface tracking in three dimensions. *SIAM Journal on Scientific Computing*, 21(6):2240–2256, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34050>.
- Gimbutas:2001:CIP**
- Zydrunas Gimbutas, Leslie Greengard, and Michael Minion. Coulomb interactions on planar structures: Inverting the square root of the Laplacian. *SIAM Journal on Scientific Computing*, 22(6):2093–2108, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36119>.

- [GGOY02] **Gil:2002:ATP**
 Yossi Gil, Zvika Gutterman, Shmuel Onn, and Irad Yavneh. Automated transformations for PDE systems with application to multi-grid solvers. *SIAM Journal on Scientific Computing*, 24(3):886–904, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38594>.
- [GGZ02] **Glimm:2002:ITA**
 James Glimm, John W. Grove, and Yongmin Zhang. Interface tracking for axisymmetric flows. *SIAM Journal on Scientific Computing*, 24(1):208–236, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36669>.
- [GGPV10] **Giraud:2010:FGD**
 L. Giraud, S. Gratton, X. Pinel, and X. Vasseur. Flexible GMRES with deflated restarting. *SIAM Journal on Scientific Computing*, 32(4):1858–1878, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GGS08] **Gresho:2008:ATS**
 Philip M. Gresho, David F. Griffiths, and David J. Silvester. Adaptive time-stepping for incompressible flow. Part I: Scalar advection-diffusion. *SIAM Journal on Scientific Computing*, 30(4):2018–2054, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GGS19] **Gasser:2019:BCE**
 Rebekka Gasser, Joscha Gedicke, and Stefan Sauter. Benchmark computation of eigenvalues with large defect for non-self-adjoint elliptic differential operators. *SIAM Journal on Scientific Computing*, 41(6):A3938–A3953, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GH97] **Grote:1997:PPS**
 Marcus J. Grote and Thomas Huckle. Parallel preconditioning with sparse approximate inverses. *SIAM Journal on Scientific Computing*, 18(3):838–853, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27655>.
- [GH99] **Graham:1999:UAS**
 I. G. Graham and M. J. Hagger. Unstructured additive Schwarz-conjugate gradient method for elliptic problems with highly discontinuous coefficients. *SIAM Journal on*

- Scientific Computing*, 20(6): 2041–2066, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30559>. [GH14]
- [GH02] **Gatica:2002:PMM**
Gabriel N. Gatica and Norbert Heuer. A preconditioned MINRES method for the coupling of mixed-FEM and BEM for some nonlinear problems. *SIAM Journal on Scientific Computing*, 24(2):572–596, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38887>. [GH15a]
- [GH07] **Ganesh:2007:HHO**
M. Ganesh and S. C. Hawkins. A hybrid high-order algorithm for radar cross section computations. *SIAM Journal on Scientific Computing*, 29(3):1217–1243, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GH15b]
- [GH13] **Garba:2013:HHP**
Abdou Garba and Pierre Haldenwang. A Helmholtz–Hodge projection method using an iterative gauge computation to solve the 3D generalized Stokes problem. *SIAM Journal on Scientific Computing*, 35(3):A1560–A1583, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GH15b]
- Griebel:2014:DRH**
M. Griebel and A. Hullmann. Dimensionality reduction of high-dimensional data with a nonlinear principal component aligned generative topographic mapping. *SIAM Journal on Scientific Computing*, 36(3):A1027–A1047, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gaaf:2015:PBM**
Sarah W. Gaaf and Michiel E. Hochstenbach. Probabilistic bounds for the matrix condition number with extended Lanczos bidiagonalization. *SIAM Journal on Scientific Computing*, 37(5):S581–S601, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ganesh:2015:HPC**
M. Ganesh and S. C. Hawkins. A high performance computing and sensitivity analysis algorithm for stochastic many-particle wave scattering. *SIAM Journal on Scientific Computing*, 37(3):A1475–A1503, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [GH18] **Garrett:2018:FSI**
 C. Kristopher Garrett and Cory D. Hauck. A fast solver for implicit integration of the Vlasov–Poisson system in the Eulerian framework. *SIAM Journal on Scientific Computing*, 40(2):B483–B506, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GHH07] **Georgoulis:2007:DGM**
 Emmanuil H. Georgoulis, Edward Hall, and Paul Houston. Discontinuous Galerkin methods for advection-diffusion-reaction problems on anisotropically refined meshes. *SIAM Journal on Scientific Computing*, 30(1):246–271, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GHHH17] **Gamba:2017:FSM**
 Irene M. Gamba, Jeffrey R. Haack, Cory D. Hauck, and Jingwei Hu. A fast spectral method for the Boltzmann collision operator with general collision kernels. *SIAM Journal on Scientific Computing*, 39(4):B658–B674, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GHHK15] **Garcke:2015:NAP**
 Harald Garcke, Claudia Hecht, Michael Hinze, and Christian Kahle. Numerical approximation of phase field based shape and topology optimization for fluids. *SIAM Journal on Scientific Computing*, 37(4):A1846–A1871, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GHK14] **Gazzola:2014:RLW**
 Mattia Gazzola, Babak Hejazialhosseini, and Petros Koumoutsakos. Reinforcement learning and wavelet adapted vortex methods for simulations of self-propelled swimmers. *SIAM Journal on Scientific Computing*, 36(3):B622–B639, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GHKF22] **Goda:2022:UMS**
 Takashi Goda, Tomohiko Hironaka, Wataru Kitade, and Adam Foster. Unbiased MLMC stochastic gradient-based optimization of Bayesian experimental designs. *SIAM Journal on Scientific Computing*, 44(1):A286–A311, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1338848>.
- [GHKL22] **Gao:2022:OFP**
 Bin Gao, Guanghui Hu, Yang Kuang, and Xin Liu. An

orthogonalization-free parallelizable framework for all-electron calculations in density functional theory. *SIAM Journal on Scientific Computing*, 44(3):B723–B745, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1355884>.

Grote:2014:IIP

[GHKS14]

Marcus J. Grote, Johannes Huber, Drosos Kourounis, and Olaf Schenk. Inexact interior-point method for PDE-Constrained nonlinear optimization. *SIAM Journal on Scientific Computing*, 36(3):A1251–A1276, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gao:2018:DLE

[GHMY18]

Yali Gao, Xiaoming He, Liqun Mei, and Xiaofeng Yang. Decoupled, linear, and energy stable finite element method for the Cahn–Hilliard–Navier–Stokes–Darcy phase field model. *SIAM Journal on Scientific Computing*, 40(1):B110–B137, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gould:2001:SEC

[GHN01]

Nicholas I. M. Gould, Mary E. Hribar, and Jorge Nocedal.

On the solution of equality constrained quadratic programming problems arising in optimization. *SIAM Journal on Scientific Computing*, 23(4):1376–1395, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34566>.

Griesmaier:2012:ISP

[GHR12]

Roland Griesmaier, Martin Hanke, and Thorsten Raasch. Inverse source problems for the Helmholtz equation and the windowed Fourier transform. *SIAM Journal on Scientific Computing*, 34(3):A1544–A1562, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Griesmaier:2013:ISP

[GHR13]

Roland Griesmaier, Martin Hanke, and Thorsten Raasch. Inverse source problems for the Helmholtz equation and the Windowed Fourier Transform II. *SIAM Journal on Scientific Computing*, 35(5):A2188–A2206, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gander:2019:DTP

[GHR19]

Martin J. Gander, Laurence Halpern, Johann Rannou, and Juliette Ryan. A direct time parallel solver by

diagonalization for the wave equation. *SIAM Journal on Scientific Computing*, 41(1): A220–A245, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gross:2009:GBV

[GHS⁺09]

Daniel Gross, Ulrich Heil, Ralf Schulze, Elmar Schömer, and Ulrich Schwanecke. GPU-based volume reconstruction from very few arbitrarily aligned X-ray images. *SIAM Journal on Scientific Computing*, 31(6):4204–4221, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gremse:2015:GAS

[GHS⁺15]

Felix Gremse, Andreas Höfner, Lars Ole Schwen, Fabian Kiessling, and Uwe Naumann. GPU-Accelerated sparse matrix-matrix multiplication by iterative row merging. *SIAM Journal on Scientific Computing*, 37(1): C54–C71, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Golub:1998:FPS

[GHST98]

Gene H. Golub, Lan Chieh Huang, Horst Simon, and Wei-Pai Tang. A fast Poisson solver for the finite difference solution of the incompressible Navier–Stokes equations. *SIAM Journal on*

Scientific Computing, 19(5): 1606–1624, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28529>.

George:2000:NSU

[GHTW00]

Alan George, Lan Chieh Huang, Wei-Pai Tang, and Ya Dan Wu. Numerical simulation of unsteady incompressible flow ($Re \leq 9500$) on the curvilinear half-staggered mesh. *SIAM Journal on Scientific Computing*, 21(6): 2331–2351, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33709>.

Gremaud:1999:CNS

[GI99]

Pierre-Alain Gremaud and Nicholas R. Ide. Computation of nonclassical solutions to Hamilton–Jacobi problems. *SIAM Journal on Scientific Computing*, 21(2):502–521, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32766>.

Ghili:2017:LSA

[GI17]

Saman Ghili and Gianluca Iaccarino. Least squares approximation of polynomial chaos expansions with opti-

- mized grid points. *SIAM Journal on Scientific Computing*, 39(5):A1991–A2019, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GJ05]
- [Gia18] Stefano Giani. *HP*-adaptive *Celatus* enriched discontinuous Galerkin method for second-order elliptic source problems. *SIAM Journal on Scientific Computing*, 40(5):B1391–B1418, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Giani:2018:ACE**
- [Giu22] Andrew Giuliani. A two-dimensional stabilized discontinuous Galerkin method on curvilinear embedded boundary grids. *SIAM Journal on Scientific Computing*, 44(1):A389–A415, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1396277>. **Giuliani:2022:TDS**
- [Giv12] Edward Givelberg. A weak formulation of the immersed boundary method. *SIAM Journal on Scientific Computing*, 34(2):A1010–A1026, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Givelberg:2012:WFI**
- [GJ05] A. Gelb and Z. Jackiewicz. Determining analyticity for parameter optimization of the Gegenbauer reconstruction method. *SIAM Journal on Scientific Computing*, 27(3):1014–1031, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60381.html. **Gelb:2005:DAP**
- [GJ07] P. Grob and P. Joly. Conservative coupling between finite elements and retarded potentials. application to vibroacoustics. *SIAM Journal on Scientific Computing*, 29(3):1127–1159, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Grob:2007:CCB**
- [GJ08] Stephan Gadau and Ansgar Jüngel. A three-dimensional mixed finite-element approximation of the semiconductor energy-transport equations. *SIAM Journal on Scientific Computing*, 31(2):1120–1140, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Gadau:2008:TDM**
- [GJ17] Sarah W. Gaaf and Elias Jarlebring. The infinite bi-Lanczos method for nonlinear **Gaaf:2017:IBL**

- eigenvalue problems. *SIAM Journal on Scientific Computing*, 39(5):S898–S919, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GJ21] Ruchi Guo and Jiahua Jiang. Construct deep neural networks based on direct sampling methods for solving electrical impedance tomography. *SIAM Journal on Scientific Computing*, 43(3):B678–B711, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GJLX16] Zecheng Gan, Shidong Jiang, Erik Luijten, and Zhenli Xu. A hybrid method for systems of closely spaced dielectric spheres and ions. *SIAM Journal on Scientific Computing*, 38(3):B375–B395, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GJM94] Éric Gourdin, Brigitte Jaumard, and Brenda MacGibbon. Global optimization decomposition methods for bounded parameter minimax risk evaluation. *SIAM Journal on Scientific Computing*, 15(1):16–35, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GJP⁺14] Benjamin Ganis, Mika Jun-
tunen, Gergina Pencheva,
Mary F. Wheeler, and Ivan
Yotov. A global Jacobian
method for mortar discretiza-
tions of nonlinear porous me-
dia flows. *SIAM Journal on
Scientific Computing*, 36(2):
A522–A542, ??? 2014. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic).
- [GJS19] Martin J. Gander, Yao-Lin
Jiang, and Bo Song. A su-
perlinear convergence esti-
mate for the parareal Schwarz
waveform relaxation algo-
rithm. *SIAM Journal on
Scientific Computing*, 41(2):
A1148–A1169, ??? 2019.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic).
- [GJSZ13] Martin J. Gander, Yao-Lin
Jiang, Bo Song, and Hui
Zhang. Analysis of two
parareal algorithms for time-
periodic problems. *SIAM
Journal on Scientific Com-
puting*, 35(5):A2393–A2415,
??? 2013. CODEN SJOCE3.
ISSN 1064-8275 (print), 1095-
7197 (electronic).

Guo:2021:CDN**Ganis:2014:GJM****Gander:2019:SCE****Gan:2016:HMS****Gander:2013:ATP**

Greengard:2018:ATK

- [GJZ18] Leslie Greengard, Shidong Jiang, and Yong Zhang. The anisotropic truncated kernel method for convolution with free-space Green's functions. *SIAM Journal on Scientific Computing*, 40(6):A3733–A3754, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GK03]

Greengard:1998:IEA

- [GK98] Leslie Greengard and Mary Catherine Kropinski. An integral equation approach to the incompressible Navier–Stokes equations in two dimensions. *SIAM Journal on Scientific Computing*, 20(1):318–336, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31764>. [GK05]

Garbey:2000:ANS

- [GK00] Marc Garbey and Hans G. Kaper. Asymptotic-numerical study of supersensitivity for generalized Burgers' equations. *SIAM Journal on Scientific Computing*, 22(1):368–385, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34220>. [GK11a]

Gear:2003:PMS

C. W. Gear and Ioannis G. Kevrekidis. Projective methods for stiff differential equations: Problems with gaps in their eigenvalue spectrum. *SIAM Journal on Scientific Computing*, 24(4):1091–1106, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38815>.

Gremaud:2005:CSF

Pierre A. Gremaud and Christopher M. Kuster. Computational study of fast methods for the eikonal equation. *SIAM Journal on Scientific Computing*, 27(6):1803–1816, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60565.html.

Gassner:2011:CDD

Gregor Gassner and David A. Kopriva. A comparison of the dispersion and dissipation errors of Gauss and Gauss–Lobatto discontinuous Galerkin spectral element methods. *SIAM Journal on Scientific Computing*, 33(5):2560–2579, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-33/art_2560.html.

- siam.org/sisc/resource/1/sjoc3/v33/i5/p2560_s1 [GK18]
- [GK11b] Chen Greif and David Kurokawa. A note on the convergence of SOR for the PageRank problem. *SIAM Journal on Scientific Computing*, 33(6):3201–3209, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3201_s1 [GK19]
- [GK12] Martin J. Gander and Felix Kwok. Best Robin parameters for optimized Schwarz methods at cross points. *SIAM Journal on Scientific Computing*, 34(4):A1849–A1879, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GKC13]
- [GK13] Ankit Gupta and Mustafa Khammash. Unbiased estimation of parameter sensitivities for stochastic chemical reaction networks. *SIAM Journal on Scientific Computing*, 35(6):A2598–A2620, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GKD05]
- [Gedicke:2018:AWM] Joscha Gedicke and Arbaz Khan. Arnold–Winther mixed finite elements for Stokes eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(5):A3449–A3469, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Giuliani:2019:MLD] Andrew Giuliani and Lilia Krivodonova. A moment limiter for the discontinuous Galerkin method on unstructured triangular meshes. *SIAM Journal on Scientific Computing*, 41(1):A508–A537, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Giraldo:2013:IEF] F. X. Giraldo, J. F. Kelly, and E. M. Constantinescu. Implicit-explicit formulations of a three-dimensional nonhydrostatic unified model of the atmosphere (NUMA). *SIAM Journal on Scientific Computing*, 35(5):B1162–B1194, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Govaerts:2005:NCB] Willy Govaerts, Yuri A. Kuznetsov, and Annick Dhooge. Numerical continuation of bifurcations of

- limit cycles in MATLAB. *SIAM Journal on Scientific Computing*, 27(1):231–252, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60074>.
- [GKK10] Robert Granat, Bo Kågström, and Daniel Kressner. A novel parallel QR algorithm for hybrid distributed memory HPC systems. *SIAM Journal on Scientific Computing*, 32(4):2345–2378, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKK15] Lars Grasedyck, Melanie Kluge, and Sebastian Krämer. Variants of alternating least squares tensor completion in the tensor train format. *SIAM Journal on Scientific Computing*, 37(5):A2424–A2450, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKL08] Joshua D. Griffin, Tamara G. Kolda, and Robert Michael Lewis. Asynchronous parallel generating set search for linearly constrained optimization. *SIAM Journal on Scientific Computing*, 30(4):1892–1924, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKM⁺17] Purnima Ghale, Matthew P. Kroonblawd, Sue Mniszewski, Christian F. A. Negre, Robert Pavel, Sergio Pino, Vivek Sardeshmukh, Guangjie Shi, and Georg Hahn. Task-based parallel computation of the density matrix in quantum-based molecular dynamics using graph partitioning. *SIAM Journal on Scientific Computing*, 39(6):C466–C480, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKN18] Felix Gremse, Kerstin Küpper, and Uwe Naumann. Memory-efficient sparse matrix–matrix multiplication by row merging on many-core architectures. *SIAM Journal on Scientific Computing*, 40(4):C429–C449, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKNW18] Alexander D. Gilbert, Frances Y. Kuo, Dirk Nuyens, and Grzegorz W. Wasilkowski. Efficient implementations of the multivariate decomposition method for approxi-

Ghale:2017:TBP**Granat:2010:NPQ****Grasedyck:2015:VAL****Gremse:2018:MES****Griffin:2008:APG****Gilbert:2018:EIM**

- uating infinite-variate integrals. *SIAM Journal on Scientific Computing*, 40(5): A3240–A3266, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKRB16] Konstantinos Gourgoulias, Markos A. Katsoulakis, and Luc Rey-Bellet. Information metrics for long-time errors in splitting schemes for stochastic dynamics and parallel kinetic Monte Carlo. *SIAM Journal on Scientific Computing*, 38(6):A3808–A3832, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKRNS19] Martin J. Gander, Iryna Kulchytska-Ruchka, Innocent Niyonzima, and Sebastian Schöps. A new parareal algorithm for problems with discontinuous sources. *SIAM Journal on Scientific Computing*, 41(2):B375–B395, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKS98] Ananth Grama, Vipin Kumar, and Ahmed Sameh. Parallel hierarchical solvers and preconditioners for boundary element methods. *SIAM Journal on Scientific Computing*, 20(1):337–358, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31332>.
- [GKS20] **Gander:2020:PPA** Martin J. Gander, Felix Kwok, and Julien Salomon. PARAOPT: a parareal algorithm for optimality systems. *SIAM Journal on Scientific Computing*, 42(5): A2773–A2802, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKT09] **Grajewski:2009:MNA** Matthias Grajewski, Michael Köster, and Stefan Turek. Mathematical and numerical analysis of a robust and efficient grid deformation method in the finite element context. *SIAM Journal on Scientific Computing*, 31(2): 1539–1557, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GKV00] **Garbey:2000:PSM** M. Garbey, Yu. A. Kuznetsov, and Yu. V. Vassilevski. A parallel Schwarz method for a convection-diffusion problem. *SIAM Journal on Scientific Computing*, 22(3): 891–916, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- epubs.siam.org/sam-bin/dbq/article/33585.
- [GL15] **Giraud:2003:RCM**
 Luc Giraud and Julien Langou. A robust criterion for the modified Gram–Schmidt algorithm with selective reorthogonalization. *SIAM Journal on Scientific Computing*, 25(2):417–441, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40783>.
- [GL03] **Georgoulis:2008:NPD**
 Emmanuil H. Georgoulis and Daniel Loghin. Norm preconditioners for discontinuous Galerkin *hp*-finite element methods. *SIAM Journal on Scientific Computing*, 30(5):2447–2465, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GL08] **Guo:2010:MEA**
 Chun-Hua Guo and Wen-Wei Lin. The matrix equation $X + A^T X^{-1} A = Q$ and its application in nano research. *SIAM Journal on Scientific Computing*, 32(5):3020–3038, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GL10] **Gobet:2015:RES**
 E. Gobet and G. Liu. Rare event simulation using reversible shaking transformations. *SIAM Journal on Scientific Computing*, 37(5):A2295–A2316, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GL15] **Gawlik:2018:EBI**
 Evan S. Gawlik and Melvin Leok. Embedding-based interpolation on the special orthogonal group. *SIAM Journal on Scientific Computing*, 40(2):A721–A746, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GL18] **Gander:2021:TMT**
 Martin J. Gander and Yongxiang Liu. Is there more than one Dirichlet–Neumann algorithm for the biharmonic problem? *SIAM Journal on Scientific Computing*, 43(3):A1881–A1906, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GL21] **Gao:2022:WSL**
 Yong Gao and Wangtao Lu. Wave scattering in layered orthotropic media i: a stable PML and a high-accuracy boundary integral equation method. *SIAM Journal on Scientific Computing*, 44(4):

- B861–B884, ???? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1460296>.
- [GL22b] **Gao:2022:PMD** [GLL01] Yuan Gao and Jian-Guo Liu. Projection method for droplet dynamics on groove-textured surface with merging and splitting. *SIAM Journal on Scientific Computing*, 44(2):B310–B338, ???? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1338563>.
- [GL22c] **Goda:2022:CFM** [GLL+14] Takashi Goda and Pierre L’Ecuyer. Construction-free median quasi-Monte Carlo rules for function spaces with unspecified smoothness and general weights. *SIAM Journal on Scientific Computing*, 44(4):A2765–A2788, ???? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1473625>.
- [GLC21] **Greenbaum:2021:CRV** [GLL+15] Anne Greenbaum, Hexuan Liu, and Tyler Chen. On the convergence rate of variants of the conjugate gradient algorithm in finite precision arithmetic. *SIAM Journal on Scientific Computing*, 43(5): S496–S515, ???? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Godinaud:2001:LSM** G. Godinaud, M. N. Le Roux, and A. Y. Le Roux. A Lagrange scheme for a mathematical model of powder compression. *SIAM Journal on Scientific Computing*, 23(4):1094–1112, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23374>.
- Giraldi:2014:ISP** Loïc Giraldi, Alexander Litvinenko, Dishu Liu, Hermann G. Matthies, and Anthony Nouy. To be or not to be intrusive? The solution of plain vanilla” Galerkin case. *SIAM Journal on Scientific Computing*, 36(6): A2720–A2744, ???? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gangl:2015:SOE** P. Gangl, U. Langer, A. Laurain, H. Meftahi, and K. Sturm. Shape optimization of an electric motor subject to nonlinear magnetostatics. *SIAM Journal on Scientific Computing*, 37(6):B1002–B1025, ???? 2015. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Gorynina:2021:SRC

- [GLL21] Olga Gorynina, Claude Le Bris, and Frederic Legoll. Some remarks on a coupling method for the practical computation of homogenized coefficients. *SIAM Journal on Scientific Computing*, 43(2):A1273–A1304, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Galarce:2022:SEM

- [GLM22] Felipe Galarce, Damiano Lombardi, and Olga Mula. State estimation with model reduction and shape variability. application to biomedical problems. *SIAM Journal on Scientific Computing*, 44(3):B805–B833, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430480>.

Giraldi:2015:ISP

- [GLMN15] Loïc Giraldi, Dishu Liu, Hermann G. Matthies, and Anthony Nouy. To be or not to be intrusive? The solution of parametric and stochastic equations — proper generalized decomposition. *SIAM Journal on Scientific Computing*, 37(1):A347–A368, 2015. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Guducu:2022:NHP

- [GLMS22] Candan Güdücü, Jörg Liesen, Volker Mehrmann, and Daniel B. Szyld. On non-Hermitian positive (semi)Definite linear algebraic systems arising from dissipative Hamiltonian DAEs. *SIAM Journal on Scientific Computing*, 44(4):A2871–A2894, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1458594>.

Guo:2009:FTA

- [GLN09] Xiaoxia Guo, Fang Li, and Michael K. Ng. A fast ℓ_1 -TV algorithm for image restoration. *SIAM Journal on Scientific Computing*, 31(3):2322–2341, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gross:2016:RPX

- [GLOR16] Sven Gross, Thomas Ludescher, Maxim Olshanskii, and Arnold Reusken. Robust preconditioning for XFEM applied to time-dependent Stokes problems. *SIAM Journal on Scientific Computing*, 38(6):A3492–A3514, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [GLQ16] **Glowinski:2016:OSB**
 Roland Glowinski, Shingyu Leung, and Jianliang Qian. Operator-splitting based fast sweeping methods for isotropic wave propagation in a moving fluid. *SIAM Journal on Scientific Computing*, 38(2): A1195–A1223, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLQ18] **Glowinski:2018:SEO**
 Roland Glowinski, Shingyu Leung, and Jianliang Qian. A simple explicit operator-splitting method for effective Hamiltonians. *SIAM Journal on Scientific Computing*, 40(1):A484–A503, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLR07] **Glaser:2007:FAC**
 Andreas Glaser, Xiangtao Liu, and Vladimir Rokhlin. A fast algorithm for the calculation of the roots of special functions. *SIAM Journal on Scientific Computing*, 29(4): 1420–1438, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLR⁺16] **Ghysels:2016:EMI**
 Pieter Ghysels, Xiaoye S. Li, François-Henry Rouet, Samuel Williams, and Artem Napov. An efficient multicores implementation of a novel HSS-structured multi-frontal solver using randomized sampling. *SIAM Journal on Scientific Computing*, 38(5):S358–S384, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLR23] **Gander:2023:NOS**
 Martin J. Gander, Stephan B. Lunowa, and Christian Rohde. Non-overlapping Schwarz waveform-relaxation for nonlinear advection–diffusion equations. *SIAM Journal on Scientific Computing*, 45(1):A49–A73, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1415005>.
- [GLRS23] **Gander:2023:UAF**
 Martin J. Gander, Thibaut Lunet, Daniel Ruprecht, and Robert Speck. A unified analysis framework for iterative parallel-in-time algorithms. *SIAM Journal on Scientific Computing*, 45(5): A2275–A2303, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1487163>.
- [GLS08] **Gejadze:2008:AEC**
 I. Yu. Gejadze, F.-X. Le Dimet, and V. Shutyaev. On analysis error covariances in

- variational data assimilation. *SIAM Journal on Scientific Computing*, 30(4):1847–1874, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GLT18]
- [GLS13] Emmanuil H. Georgoulis, Jeremy Levesley, and Fazli Subhan. Multilevel sparse kernel-based interpolation. *SIAM Journal on Scientific Computing*, 35(2):A815–A831, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLSTV16] E. Gobet, J. G. López-Salas, P. Turkedjiev, and C. Vázquez. Stratified regression Monte–Carlo scheme for semilinear PDEs and BSDEs with large scale parallelization on GPUs. *SIAM Journal on Scientific Computing*, 38(6):C652–C677, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLxY19] Ian G. Grooms, Robert Michael Lewis, and Michael W. Trosset. Molecular embedding via a second order dissimilarity parameterized approach. *SIAM Journal on Scientific Computing*, 31(4):2733–2756, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GLT18]
- [GLW18] Xu Guo, Yutian Li, and Hong Wang. A high order finite difference method for tempered fractional diffusion equations with applications to the CGMY model. *SIAM Journal on Scientific Computing*, 40(5):A3322–A3343, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GLY19] Bin Gao, Xin Liu, and Ya xiang Yuan. Parallelizable algorithms for optimization problems with orthogonality constraints. *SIAM Journal on Scientific Computing*, 41(3):A1949–A1983, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Georgoulis:2013:MSK**Gerbeau:2018:MMM****Guo:2018:HOF****Gobet:2016:SRM****Gao:2019:PAO**

- [GLZ22] **Gong:2022:IDB**
 Wei Gong, Jiajie Li, and Shengfeng Zhu. Improved discrete boundary type shape gradients for PDE-constrained shape optimization. *SIAM Journal on Scientific Computing*, 44(4):A2464–A2505, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1457400>.
- [GM96] **Guckenheimer:1996:CHB**
 John Guckenheimer and Mark Myers. Computing Hopf bifurcations. II. three examples from neurophysiology. *SIAM Journal on Scientific Computing*, 17(6):1275–1301, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25349>.
- [GM98] **Genz:1998:SIR**
 Alan Genz and John Monahan. Stochastic integration rules for infinite regions. *SIAM Journal on Scientific Computing*, 19(2):426–439, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28680>.
- [GM00a] **Grimstad:2000:NSS**
 Alv-Arne Grimstad and
- [GM00b] **Guckenheimer:2000:CPO**
 John Guckenheimer and Brian Meloon. Computing periodic orbits and their bifurcations with automatic differentiation. *SIAM Journal on Scientific Computing*, 22(3):951–985, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35927>.
- [GM04] **Gustafsson:2004:TCH**
 Bertil Gustafsson and Eva Mossberg. Time compact high order difference methods for wave propagation. *SIAM Journal on Scientific Computing*, 26(1):259–271, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60245>.
- [GM11] **Gunzburger:2011:OCS**
 Max Gunzburger and Ju Ming. Optimal control of stochastic
- Trond Mannseth. Nonlinearity, scale, and sensitivity for parameter estimation problems. *SIAM Journal on Scientific Computing*, 21(6):2096–2113, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33910>.

- flow over a backward-facing step using reduced-order modeling. *SIAM Journal on Scientific Computing*, 33(5): 2641–2663, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2641_s1 [GM15a]
- Goatin:2013:WFT**
- [GM13] Paola Goatin and Matthias Mimault. The wave-front tracking algorithm for Hughes’ model of pedestrian motion. *SIAM Journal on Scientific Computing*, 35(3):B606–B622, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GM15b]
- Gillman:2014:DSC**
- [GM14a] A. Gillman and P. G. Martinsson. A direct solver with $O(N)$ complexity for variable coefficient elliptic PDEs discretized via a high-order composite spectral collocation method. *SIAM Journal on Scientific Computing*, 36(4):A2023–A2046, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GM17]
- Gorodetsky:2014:ELD**
- [GM14b] Alex Gorodetsky and Youssef Marzouk. Efficient localization of discontinuities in complex computational simulations. *SIAM Journal on Scientific Computing*, 36(6): A2584–A2610, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Grigori:2015:CAI**
- Laura Grigori and Sophie Moufawad. Communication avoiding ILU0 preconditioner. *SIAM Journal on Scientific Computing*, 37(2): C217–C246, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Guermond:2015:HOT**
- Jean-Luc Guermond and Peter Mineev. High-order time stepping for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 37(6): A2656–A2681, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ganesh:2017:SDP**
- M. Ganesh and C. Morgenstern. A sign-definite preconditioned high-order FEM, Part I: Formulation and simulation for bounded *Homogeneous* media wave propagation. *SIAM Journal on Scientific Computing*, 39(5): S563–S586, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [GM19a] **Gotschel:2019:EPT**
 Sebastian Gotschel and Michael L. Minion. An efficient parallel-in-time method for optimization with parabolic PDEs. *SIAM Journal on Scientific Computing*, 41(6):C603–C626, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GM19b] **Guermond:2019:HOA**
 Jean-Luc Guermond and Peter Mineev. High-order adaptive time stepping for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 41(2):A770–A788, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GM20] **Goudon:2020:FPA**
 Thierry Goudon and Laurent Monasse. Fokker–Planck approach of Ostwald ripening: Simulation of a modified Lifshitz–Slyozov–Wagner system with a diffusive correction. *SIAM Journal on Scientific Computing*, 42(1):B157–B184, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GM21] **Ghosh:2021:PCR**
 Abhijit Ghosh and Chittaranjan Mishra. A parallel cyclic reduction algo-
- [GM23] **Guglielmi:2023:MOR**
 Nicola Guglielmi and Mattia Manucci. Model order reduction in contour integral methods for parametric PDEs. *SIAM Journal on Scientific Computing*, 45(4):A1711–A1740, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1520189>.
- [GML⁺21] **Guo:2021:IHG**
 Shimin Guo, Liquan Mei, Can Li, Wenjing Yan, and Jinghuai Gao. IMEX Hermite–Galerkin spectral schemes with adaptive time stepping for the coupled non-local Gordon-type systems in multiple dimensions. *SIAM Journal on Scientific Computing*, 43(6):B1133–B1163, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GMM15] **Grote:2015:RKB**
 Marcus J. Grote, Michaela Mehlin, and Teodora Mitkova. Runge–Kutta-Based explicit
- rithm for pentadiagonal systems with application to a convection-dominated Heston PDE. *SIAM Journal on Scientific Computing*, 43(2):C177–C202, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- local time-stepping methods for wave propagation. *SIAM Journal on Scientific Computing*, 37(2):A747–A775, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GMN02] Martin J. Gander, Frédéric Magoulès, and Frédéric Nataf. Optimized Schwarz methods without overlap for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 24(1):38–60, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38701>.
- [GMP19] Kathrin Glau, Mirco Mahlstedt, and Christian Pötz. A new approach for American option pricing: The dynamic Chebyshev method. *SIAM Journal on Scientific Computing*, 41(1):B153–B180, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GMPZ06] Frank Günther, Miriam Mehl, Markus Pögl, and Christoph Zenger. A cache-aware algorithm for PDEs on hierarchical data structures based on space-filling curves. *SIAM Journal on Scientific Computing*, 28(5):1634–1650, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GMS02] Thorsten Grahs, Andreas Meister, and Thomas Sonar. Image processing for numerical approximations of conservation laws: Nonlinear anisotropic artificial dissipation. *SIAM Journal on Scientific Computing*, 23(5):1439–1455, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35143>.
- [GMS18] Roland Griesmaier, Rohit Kumar Mishra, and Christian Schmiedecke. Inverse source problems for Maxwell’s equations and the
- [GMO14] J. Gopalakrishnan, I. Muga, and N. Olivares. Dispersive and dissipative errors in the DPG method with scaled norms for Helmholtz equation. *SIAM Journal on Scientific Computing*, 36(1):A20–A39, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Windowed Fourier Transform. *SIAM Journal on Scientific Computing*, 40(2): A1204–A1223, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Golovaty:2021:VMG

[GMS21]

Dmitry Golovaty, Jose Alberto Montero, and Daniel Spirn. A variational method for generating n -cross fields using higher-order Q -tensors. *SIAM Journal on Scientific Computing*, 43(5):A3269–A3304, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GMV99]

2091–2110, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27533>.

Golub:1999:SNM

Gene H. Golub, Peyman Milanfar, and James Varah. A stable numerical method for inverting shape from moments. *SIAM Journal on Scientific Computing*, 21(4):1222–1243, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32831>.

Gholami:2016:FFM

[GMSB16]

Amir Gholami, Dhairya Malhotra, Hari Sundar, and George Biros. FFT, FMM, or multigrid? A comparative study of state-of-the-art Poisson solvers for uniform and nonuniform grids in the unit cube. *SIAM Journal on Scientific Computing*, 38(3): C280–C306, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GMvdV18]

Geevers:2018:NHO

S. Geevers, W. A. Mulder, and J. J. W. van der Vegt. New higher-order mass-lumped tetrahedral elements for wave propagation modelling. *SIAM Journal on Scientific Computing*, 40(5): A2830–A2857, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Geevers:2019:EQR

Gilbert:1998:GMP

[GMT98]

John R. Gilbert, Gary L. Miller, and Shang-Hua Teng. Geometric mesh partitioning: Implementation and experiments. *SIAM Journal on Scientific Computing*, 19(6):

[GMvdV19]

S. Geevers, W. A. Mulder, and J. J. W. van der Vegt. Efficient quadrature rules for computing the stiffness matrices of mass-lumped tetrahedral elements for linear wave problems. *SIAM Journal on Scientific Com-*

- puting*, 41(2):A1041–A1065, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GN16]
- [GMYL23] Shimin Guo, Liquan Mei, Wenjing Yan, and Ying Li. Mass-, energy-, and momentum-preserving spectral scheme for Klein–Gordon–Schrödinger system on infinite domains. *SIAM Journal on Scientific Computing*, 45(2):B200–B230, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1484109>. [GN19]
- [GN07] Philippe Guyenne and David P. Nicholls. A high-order spectral method for nonlinear water waves over moving bottom topography. *SIAM Journal on Scientific Computing*, 30(1):81–101, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GN22a]
- [GN14] Silvia Gazzola and James G. Nagy. Generalized Arnoldi–Tikhonov method for sparse reconstruction. *SIAM Journal on Scientific Computing*, 36(2):B225–B247, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GN22b]
- Gander:2016:ANS**
Martin J. Gander and Martin Neumüller. Analysis of a new space-time parallel multigrid algorithm for parabolic problems. *SIAM Journal on Scientific Computing*, 38(4):A2173–A2208, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Giraldi:2019:WIL**
Loic Giraldi and Anthony Nouy. Weakly intrusive low-rank approximation method for nonlinear parameter-dependent equations. *SIAM Journal on Scientific Computing*, 41(3):A1777–A1792, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gu:2022:DAB**
Yiqi Gu and Michael K. Ng. Deep adaptive basis Galerkin method for high-dimensional evolution equations with oscillatory solutions. *SIAM Journal on Scientific Computing*, 44(5):A3130–A3157, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1468383>.
- Gu:2022:DRM**
Yiqi Gu and Michael K. Ng. Deep Ritz method for the

- spectral fractional Laplacian equation using the Caffarelli–Silvestre extension. *SIAM Journal on Scientific Computing*, 44(4):A2018–A2036, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1442516>. [GNOR14]
- [GN23] Yiqi Gu and Michael K. Ng. Deep neural networks for solving large linear systems arising from high-dimensional problems. *SIAM Journal on Scientific Computing*, 45(5):A2356–A2381, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1488132>. [GNPT18]
- [GNL14] L. Giraldi, A. Nouy, and G. Legrain. Low-rank approximate inverse for preconditioning tensor-structured linear systems. *SIAM Journal on Scientific Computing*, 36(4):A1850–A1870, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GNS22]
- [GNL21] Silvia Gazzola, James G. Nagy, and Malena Sabaté Landman. Iteratively reweighted FGMRES and FLSQR for sparse reconstruction. *SIAM Journal on Scientific Computing*, 43(5):S47–S69, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GNL21] Yiqi Gu and Michael K. Ng. Deep neural networks for solving large linear systems arising from high-dimensional problems. *SIAM Journal on Scientific Computing*, 45(5):A2356–A2381, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1488132>. [GNPT18]
- [GNL21] L. Giraldi, A. Nouy, and G. Legrain. Low-rank approximate inverse for preconditioning tensor-structured linear systems. *SIAM Journal on Scientific Computing*, 36(4):A1850–A1870, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GNS22]
- [GNL21] Silvia Gazzola, James G. Nagy, and Malena Sabaté Landman. Iteratively reweighted FGMRES and FLSQR for sparse reconstruction. *SIAM Journal on Scientific Computing*, 44(6):A3437–A3462, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GNL21] Steven R. Glandon, Mahesh Narayanamurthi, and Adrian Sandu. Linearly implicit multistep methods for time integration. *SIAM Journal on Scientific Computing*, 44(6):A3437–A3462, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (electronic). URL <https://epubs.siam.org/doi/10.1137/20M133748X>. [Gob08]
- Guo:2018:WAF**
- [GNYZ18] Ling Guo, Akil Narayan, Liang Yan, and Tao Zhou. Weighted approximate Fekete points: Sampling for least-squares polynomial approximation. *SIAM Journal on Scientific Computing*, 40(1): A366–A387, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Goe94]
- Guo:2017:SCM**
- [GNZC17] Ling Guo, Akil Narayan, Tao Zhou, and Yuhang Chen. Stochastic collocation methods via ℓ_1 minimization using randomized quadratures. *SIAM Journal on Scientific Computing*, 39(1):A333–A359, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Goe97]
- Grinevich:2009:IMS**
- [GO09] Piotr P. Grinevich and Maxim A. Olshanskii. An iterative method for the Stokes-type problem with variable viscosity. *SIAM Journal on Scientific Computing*, 31(5):3959–3978, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gobbert:2008:LTS**
- Matthias K. Gobbert. Long-time simulations on high resolution meshes to model calcium waves in a heart cell. *SIAM Journal on Scientific Computing*, 30(6):2922–2947, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Goedecker:1994:RAF**
- S. Goedecker. Remark on algorithms to find roots of polynomials. *SIAM Journal on Scientific Computing*, 15(5): 1059–1063, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Goedecker:1997:FRK**
- S. Goedecker. Fast radix 2, 3, 4, and 5 kernels for fast Fourier transformations on computers with overlapping multiply-add instructions. *SIAM Journal on Scientific Computing*, 18(6): 1605–1611, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28194>.
- Gonnet:2015:ESA**
- [Gon15] Pedro Gonnet. Efficient and scalable algorithms for smoothed particle hydrodynamics on hybrid shared/distributed-memory architectures. *SIAM*

Journal on Scientific Computing, 37(1):C95–C121, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Griebel:2003:AMM

[GOS03]

Michael Griebel, Daniel Oeltz, and Marc Alexander Schweitzer. An algebraic multigrid method for linear elasticity. *SIAM Journal on Scientific Computing*, 25(2):385–407, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40781>.

[Göt94]

A520–A545, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gotze:1994:PIJ

Jürgen Götze. On the parallel implementation of Jacobi and Kogbetliantz algorithms. *SIAM Journal on Scientific Computing*, 15(6):1331–1348, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Griebel:2006:STA

[GOV06]

Michael Griebel, Daniel Oeltz, and Panayot Vasilevski. Space-time approximation with sparse grids. *SIAM Journal on Scientific Computing*, 28(2):701–727, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62925.html.

Goreinov:2012:WRR

[GOS12a]

S. A. Goreinov, I. V. Oseledets, and D. V. Savostyanov. Wedderburn rank reduction and Krylov subspace method for tensor approximation. Part 1: Tucker case. *SIAM Journal on Scientific Computing*, 34(1):A1–A27, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA1_s1.

[GP96]

Gwynllyw:1996:PIM

D. Rh. Gwynllyw and T. N. Phillips. Preconditioned iterative methods for unsteady non-Newtonian flow between eccentrically rotating cylinders. *SIAM Journal on Scientific Computing*, 17(6):1369–1394, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27104>.

Gosse:2012:MDW

[Gos12b]

Laurent Gosse. Maxwellian decay for well-balanced approximations of a supercharacteristic chemotaxis model. *SIAM Journal on Scientific Computing*, 34(1):

- [GP99] **Gerritsma:1999:CSA**
M. I. Gerritsma and T. N. Phillips. Compatible spectral approximations for the velocity-pressure-stress formulation of the Stokes problem. *SIAM Journal on Scientific Computing*, 20(4):1530–1550, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32484>.
- [GP16] **Gataric:2016:PGR**
Milana Gataric and Clarice Poon. A practical guide to the recovery of wavelet coefficients from Fourier measurements. *SIAM Journal on Scientific Computing*, 38(2):A1075–A1099, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GP18] **Gomez:2018:MCM**
Christophe Gomez and Olivier Pinaud. Monte Carlo methods for radiative transfer with singular kernels. *SIAM Journal on Scientific Computing*, 40(3):A1714–A1741, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GPA18] **Gosea:2018:DDM**
I. V. Gosea, M. Petreczky, and A. C. Antoulas. Data-driven model order reduction of linear switched systems in the Loewner framework. *SIAM Journal on Scientific Computing*, 40(2):B572–B610, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GPHHAPR18] **Gonzalez-Pinto:2018:ATM**
S. González-Pinto, E. Hairer, D. Hernández-Abreu, and S. Pérez-Rodríguez. AMF-type W -methods for parabolic problems with mixed derivatives. *SIAM Journal on Scientific Computing*, 40(5):A2905–A2929, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GPK04] **Gray:2004:BIE**
L. J. Gray, A.-V. Phan, and T. Kaplan. Boundary integral evaluation of surface derivatives. *SIAM Journal on Scientific Computing*, 26(1):294–312, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40600>.
- [GPP95] **Gambolati:1995:NIS**
Giuseppe Gambolati, Giorgio Pini, and Mario Putti. Nested iterations for symmetric eigenproblems. *SIAM Journal on Scientific Computing*, 16(1):173–191, January 1995. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Gritsis:1995:OCS

[GPS95]

D. M. Gritsis, C. C. Pantelides, and R. W. H. Sargent. Optimal control of systems described by index two differential-algebraic equations. *SIAM Journal on Scientific Computing*, 16(6):1349–1366, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Graf:2012:QED

[GPS12]

Manuel Gräf, Daniel Potts, and Gabriele Steidl. Quadrature errors, discrepancies, and their relations to halftoning on the torus and the sphere. *SIAM Journal on Scientific Computing*, 34(5):A2760–A2791, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Guermond:2017:IDP

[GPSY17]

Jean-Luc Guermond, Bojan Popov, Laura Saavedra, and Yong Yang. Invariant domains preserving arbitrary Lagrangian Eulerian approximation of hyperbolic systems with continuous finite elements. *SIAM Journal on Scientific Computing*, 39(2):A385–A414, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GPT22]

Guttel:2022:RRA

Stefan Güttel, Gian Maria Negri Porzio, and Françoise Tisseur. Robust rational approximations of nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 44(4):A2439–A2463, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1380533>.

Guttel:2015:ZQR

[GPTV15]

Stefan Güttel, Eric Polizzi, Ping Tak Peter Tang, and Gautier Viaud. Zolotarev quadrature rules and load balancing for the FEAST eigensolver. *SIAM Journal on Scientific Computing*, 37(4):A2100–A2122, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Germain:2022:AEA

[GPW22]

Maximilien Germain, Huy en Pham, and Xavier Warin. Approximation error analysis of some deep backward schemes for nonlinear PDEs. *SIAM Journal on Scientific Computing*, 44(1):A28–A56, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1355355>.

Gottlich:2017:POC

[GPZ17]

Simone Gottlich, Andreas

Potschka, and Ute Ziegler. Partial outer convexification for traffic light optimization in road networks. *SIAM Journal on Scientific Computing*, 39(1):B53–B75, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gimbutas:2002:GFM

[GR02]

Zydrunas Gimbutas and Vladimir Rokhlin. A generalized fast multipole method for nonoscillatory kernels. *SIAM Journal on Scientific Computing*, 24(3):796–817, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38114>.

Goldstein:2004:PFT

[GR04]

Michael Goldstein and Jonathan Rougier. Probabilistic formulations for transferring inferences from mathematical models to physical systems. *SIAM Journal on Scientific Computing*, 26(2):467–487, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42670>.

Gander:2005:OSW

[GR05a]

Martin J. Gander and Christian Rohde. Overlapping Schwarz waveform relaxation

for convection-dominated nonlinear conservation laws. *SIAM Journal on Scientific Computing*, 27(2):415–439, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60109>.

Gross:2005:PMT

[GR05b]

Sven Gross and Arnold Reusken. Parallel multi-level tetrahedral grid refinement. *SIAM Journal on Scientific Computing*, 26(4):1261–1288, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42523>.

Gaspar:2017:MWR

Francisco J. Gaspar and Carmen Rodrigo. Multigrid waveform relaxation for the time-fractional heat equation. *SIAM Journal on Scientific Computing*, 39(4):A1201–A1224, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Grande:2014:EFE

[Gra14]

Jörg Grande. Eulerian finite element methods for parabolic equations on moving surfaces. *SIAM Journal on Scientific Computing*, 36(2):B248–B271, 2014.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gri95]
- Greenstadt:1993:SES**
- [Gre93] John Greenstadt. Solution of elliptic systems of partial differential equations by cell discretization. *SIAM Journal on Scientific Computing*, 14(3):627–653, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gri19]
- Greenbaum:2003:CSP**
- [Gre03] Anne Greenbaum. Card shuffling and the polynomial numerical hull of degree k . *SIAM Journal on Scientific Computing*, 25(2):408–416, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40027>. [GRL10]
- Griebel:1994:MAC**
- [Gri94] Michael Griebel. Multilevel algorithms considered as iterative methods on semidefinite systems. *SIAM Journal on Scientific Computing*, 15(3):547–565, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- Griebel:1995:PDO**
- Michael Griebel. Parallel domain-oriented multilevel methods. *SIAM Journal on Scientific Computing*, 16(5):1105–1125, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Grigoriu:2019:PTM**
- Mircea Grigoriu. PC translation models for random vectors and multivariate extremes. *SIAM Journal on Scientific Computing*, 41(2):A1228–A1251, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Giraldo:2010:SIF**
- F. X. Giraldo, M. Restelli, and M. Läuter. Semi-implicit formulations of the Navier–Stokes equations: Application to nonhydrostatic atmospheric modeling. *SIAM Journal on Scientific Computing*, 32(6):3394–3425, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3394_s1.
- Gürel:2010:INF**
- Levent Gürel and Tahar Malas. Iterative near-field preconditioner for the multilevel fast multipole algorithm. *SIAM Journal on*

Scientific Computing, 32(4): 1929–1949, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gomes-Ruggiero:2009:SPG

[GRMS09] M. A. Gomes-Ruggiero, J. M. Martínez, and S. A. Santos. Spectral projected gradient method with inexact restoration for minimization with nonconvex constraints. *SIAM Journal on Scientific Computing*, 31(3):1628–1652, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gronchi:2002:SPS

[Gro02] G. F. Gronchi. On the stationary points of the squared distance between two ellipses with a common focus. *SIAM Journal on Scientific Computing*, 24(1):61–80, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37417>.

Garcia-Ripoll:2001:OSF

[GRPG01] Juan José García-Ripoll and Víctor M. Pérez-García. Optimizing Schrödinger functionals using Sobolev gradients: Applications to quantum mechanics and nonlinear optics. *SIAM Journal on Scientific Computing*, 23(4):1316–1334, July 2001.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37772>.

Gulian:2019:MLS

[GRPK19] Mamikon Gulian, Maziar Raissi, Paris Perdikaris, and George Karniadakis. Machine learning of space-fractional differential equations. *SIAM Journal on Scientific Computing*, 41(4):A2485–A2509, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gmeiner:2015:PSH

[GRS⁺15] Björn Gmeiner, Ulrich Rüde, Holger Stengel, Christian Waluga, and Barbara Wohlmuth. Performance and scalability of hierarchical hybrid multi-grid solvers for Stokes systems. *SIAM Journal on Scientific Computing*, 37(2):C143–C168, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Giraud:2005:CSI

[GRT05] Luc Giraud, Daniel Ruiz, and Ahmed Touhami. A comparative study of iterative solvers exploiting spectral information for SPD systems. *SIAM Journal on Scientific Computing*, 27(5):1760–1786, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

(electronic). URL http://epubs.siam.org/volume-27/art_60830.html.

Gustafsson:1997:CSI

[GS97]

Kjell Gustafsson and Gustaf Söderlind. Control strategies for the iterative solution of nonlinear equations in ODE solvers. *SIAM Journal on Scientific Computing*, 18(1):23–40, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28710>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Gander:1998:STC

[GS98a]

Martin J. Gander and Andrew M. Stuart. Space-time continuous analysis of wave-form relaxation for the heat equation. *SIAM Journal on Scientific Computing*, 19(6):2014–2031, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30533>.

Gould:1998:SAI

[GS98b]

Nicholas I. M. Gould and Jennifer A. Scott. Sparse approximate-inverse preconditioners using norm-minimization techniques. *SIAM Journal on Scientific Computing*, 19(2):605–625, March

1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28842>.

Griebel:2000:PPU

[GS00]

Michael Griebel and Marc Alexander Schweitzer. A particle-partition of unity method for the solution of elliptic, parabolic, and hyperbolic PDEs. *SIAM Journal on Scientific Computing*, 22(3):853–890, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35584>.

Griebel:2002:PPUa

[GS02a]

Michael Griebel and Marc Alexander Schweitzer. A particle-partition of unity method — Part II: Efficient cover construction and reliable integration. *SIAM Journal on Scientific Computing*, 23(5):1655–1682, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39158>.

Griebel:2002:PPUb

[GS02b]

Michael Griebel and Marc Alexander Schweitzer. A particle-partition of unity method — Part III: a multilevel solver. *SIAM Journal on Scientific Computing*, 24(2):

- 377–409, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39525>.
- [GS05] **Grady:2005:IPN** Leo Grady and Eric L. Schwartz. Isoperimetric partitioning: a new algorithm for graph partitioning. *SIAM Journal on Scientific Computing*, 27(6):1844–1866, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60900.html.
- [GS12] **Gejadze:2012:CDF** I. Yu. Gejadze and V. Shutyaev. On computation of the design function gradient for the sensor-location problem in variational data assimilation. *SIAM Journal on Scientific Computing*, 34(2):B127–B147, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GS14] **Guillemintot:2014:ISB** Johann Guilleminot and Christian Soize. Itô SDE-based generator for a class of non-Gaussian vector-valued random fields in uncertainty quantification. *SIAM Journal on Scientific Computing*, 36(6):A2763–A2786, 2014.
- [GS16] **Gao:2016:NMF** Huadong Gao and Weiwei Sun. A new mixed formulation and efficient numerical solution of Ginzburg–Landau equations under the temporal gauge. *SIAM Journal on Scientific Computing*, 38(3):A1339–A1357, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GS18] **Gauthier:2018:OQS** Bertrand Gauthier and Johan A. K. Suykens. Optimal quadrature-sparsification for integral operator approximation. *SIAM Journal on Scientific Computing*, 40(5):A3636–A3674, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GS19] **Guessab:2019:EMI** Allal Guessab and Boris Semisalov. Extended multi-dimensional integration formulas on polytope meshes. *SIAM Journal on Scientific Computing*, 41(5):A3152–A3181, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [GS21] **Gu:2021:ESM** Yiqi Gu and Jie Shen. An efficient spectral method for elliptic PDEs in complex domains with circular embedding. *SIAM Journal on Scientific Computing*, 43(1):A309–A329, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GSM20] **Gurkan:2020:SCD** Ceren Gürkan, Simon Sticko, and André Massing. Stabilized cut discontinuous Galerkin methods for advection-reaction problems. *SIAM Journal on Scientific Computing*, 42(5):A2620–A2654, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GSO17] **Gambhir:2017:DMV** Arjun Singh Gambhir, Andreas Stathopoulos, and Kostas Orginos. Deflation as a method of variance reduction for estimating the trace of a matrix inverse. *SIAM Journal on Scientific Computing*, 39(2):A532–A558, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GSR19] **Goldenberg:2019:GKD** Steven Goldenberg, Andreas Stathopoulos, and Eloy Romero. A Golub–Kahan Davidson method for accurately computing a few singular triplets of large sparse matrices. *SIAM Journal on Scientific Computing*, 41(4):A2172–A2192, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GSS00] **Grama:2000:IEB** Ananth Grama, Vivek Sarin, and Ahmed Sameh. Improving error bounds for multipole-based treecodes. *SIAM Journal on Scientific Computing*, 21(5):1790–1803, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33912>.
- [GSS12] **Gaudreau:2012:CTP** Philippe Gaudreau, Richard M. Slevinsky, and Hassan Safouhi. Computation of tail probabilities via extrapolation methods and connection with rational and Padé approximants. *SIAM Journal on Scientific Computing*, 34(1):B65–B85, January 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/doi/abs/10.1137/100803778>.
- [GSS22] **Grune:2022:EMP** Lars Grüne, Manuel Schaller, and Anton Schiela. Effi-

- cient model predictive control for parabolic PDEs with goal oriented error estimation. *SIAM Journal on Scientific Computing*, 44(1): A471–A500, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1356324>. [GST19]
- [GST+99] J. Glimm, S. R. Simanca, D. Tan, F. M. Tangerman, and G. VanDerWoude. Front tracking simulations of ion deposition and resputtering. *SIAM Journal on Scientific Computing*, 20(5): 1905–1920, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31839>. [GST23]
- [GST09] Amparo Gil, Javier Segura, and Nico M. Temme. Computing the conical function $P_{-1/2+i\tau}^\mu(x)$. *SIAM Journal on Scientific Computing*, 31(3):1716–1741, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GST12]
- Amparo Gil, Javier Segura, and Nico M. Temme. Efficient and accurate algorithms for the computation and in-
- version of the incomplete gamma function ratios. *SIAM Journal on Scientific Computing*, 34(6):A2965–A2981, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gil:2019:NCG]
- Amparo Gil, Javier Segura, and Nico M. Temme. Noniterative computation of Gauss–Jacobi quadrature. *SIAM Journal on Scientific Computing*, 41(1):A668–A693, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Griebel:2023:DOD]
- Michael Griebel, Marc A. Schweitzer, and Lukas Troska. A dimension-oblivious domain decomposition method based on space-filling curves. *SIAM Journal on Scientific Computing*, 45(2):A369–A396, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1454481>. [Gustafsson:2018:PEC]
- Tom Gustafsson, Rolf Stenberg, and Juha Videman. A posteriori estimates for conforming Kirchhoff plate elements. *SIAM Journal on Scientific Computing*, 40(3): A1386–A1407, 2018.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gigante:2020:OSM

[GSV20a]

Giacomo Gigante, Giulia Sambataro, and Christian Vergara. Optimized Schwarz methods for spherical interfaces with application to fluid-structure interaction. *SIAM Journal on Scientific Computing*, 42(2):A751–A770, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gustafsson:2020:NME

[GSV20b]

Tom Gustafsson, Rolf Stenberg, and Juha Videman. On Nitsche’s method for elastic contact problems. *SIAM Journal on Scientific Computing*, 42(2):B425–B446, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gustafsson:2021:NMK

[GSV21]

Tom Gustafsson, Rolf Stenberg, and Juha Videman. Nitsche’s method for Kirchhoff plates. *SIAM Journal on Scientific Computing*, 43(3):A1651–A1670, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gugercin:2013:MRD

[GSW13]

Serkan Gugercin, Tatjana Stykel, and Sarah Wyatt.

Model reduction of descriptor systems by interpolatory projection methods. *SIAM Journal on Scientific Computing*, 35(5):B1010–B1033, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gopalakrishnan:2017:MTP

[GSW17]

J. Gopalakrishnan, J. Schöberl, and C. Wintersteiger. Mapped tent pitching schemes for hyperbolic systems. *SIAM Journal on Scientific Computing*, 39(6):B1043–B1063, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gao:2020:MMC

[GSWZ20]

Wenwu Gao, Xingping Sun, Zongmin Wu, and Xuan Zhou. Multivariate Monte Carlo approximation based on scattered data. *SIAM Journal on Scientific Computing*, 42(4):A2262–A2280, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Greenbaum:1994:GCA

[GT94]

Anne Greenbaum and Lloyd N. Trefethen. GMRES/CR and Arnoldi/Lanczos as matrix approximation problems. *SIAM Journal on Scientific Computing*, 15(2):359–368, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods

in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Garaizar:1998:AMR

[GT98]

F. Xabier Garaizar and John Trangenstein. Adaptive mesh refinement and front-tracking for shear bands in an antiplane shear model. *SIAM Journal on Scientific Computing*, 20(2):750–779, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31927>.

Gosse:2006:LNA

[GT06]

Laurent Gosse and Giuseppe Toscani. Lagrangian numerical approximations to one-dimensional convection-diffusion equations. *SIAM Journal on Scientific Computing*, 28(4):1203–1227, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Grigori:2019:SLS

[GT19]

Laura Grigori and Olivier Tissot. Scalable linear solvers based on enlarged Krylov subspaces with dynamic reduction of search directions. *SIAM Journal on Scientific Computing*, 41(5):C522–C547, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[GTK⁺17]

Gamell:2017:SFM

Marc Gamell, Keita Teranishi, Hemanth Kolla, Jackson Mayo, Michael A. Heroux, Jacqueline Chen, and Manish Parashar. Scalable failure masking for stencil computations using ghost region expansion and cell to rank remapping. *SIAM Journal on Scientific Computing*, 39(5):S347–S378, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gebremedhin:2007:NAS

[GTMP07]

Assefaw H. Gebremedhin, Arijit Tarafdar, Fredrik Manne, and Alex Pothén. New acyclic and star coloring algorithms with application to computing Hessians. *SIAM Journal on Scientific Computing*, 29(3):1042–1072, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gu:1993:ISR

[Gu93]

Chong Gu. Interaction splines with regular data: automatically smoothing digital images. *SIAM Journal on Scientific Computing*, 14(1):218–230, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gu:2015:SIR

[Gu15]

M. Gu. Subspace iteration randomization and sin-

- gular value problems. *SIAM Journal on Scientific Computing*, 37(3):A1139–A1173, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gup17]
- Garreis:2017:COL**
- [GU17] Sebastian Garreis and Michael Ulbrich. Constrained optimization with low-rank tensors and applications to parametric problems with PDEs. *SIAM Journal on Scientific Computing*, 39(1):A25–A54, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Gur04]
- Gubner:1996:CSN**
- [Gub96] John A. Gubner. Computation of shot-noise probability distributions and densities. *SIAM Journal on Scientific Computing*, 17(3):750–761, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26872>. [Gut93]
- Gutknecht:1993:VBM**
- [Gut93] Martin H. Gutknecht. Variants of BICGSTAB for matrices with complex spectrum. *SIAM Journal on Scientific Computing*, 14(5):1020–1033, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Greif:1998:ISC**
- [GV98] Chen Greif and James Varah. Iterative solution of cyclically reduced systems arising from discretization of the three-dimensional
- Gupta:2017:EPR**
- Anshul Gupta. Enhancing performance and robustness of ILU preconditioners by blocking and selective transposition. *SIAM Journal on Scientific Computing*, 39(1):A303–A332, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gurski:2004:HTA**
- [Gurski:2004:HTA] K. F. Gurski. An HLLC-type approximate Riemann solver for ideal magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 25(6):2165–2187, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40796>.

- convection-diffusion equation. *SIAM Journal on Scientific Computing*, 19(6): 1918–1940, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29699>. [GV12]
- [GV07a] Martin J. Gander and Stefan Vandewalle. Analysis of the parareal time-parallel time-integration method. *SIAM Journal on Scientific Computing*, 29(2):556–578, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV07b] Roland Griesse and Boris Vexler. Numerical sensitivity analysis for the quantity of interest in PDE-constrained optimization. *SIAM Journal on Scientific Computing*, 29(1):22–48, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV09] P. G. Gruber and J. Valdman. Solution of one-time-step problems in elastoplasticity by a slant Newton method. *SIAM Journal on Scientific Computing*, 31(2): 1558–1580, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV12] Anna-Lena Gerner and Karen Veroy. Certified reduced basis methods for parametrized saddle point problems. *SIAM Journal on Scientific Computing*, 34(5):A2812–A2836, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV13] Zydrunas Gimbutas and Shravan Veerapaneni. A fast algorithm for spherical grid rotations and its application to singular quadrature. *SIAM Journal on Scientific Computing*, 35(6):A2738–A2751, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV15] Pieter Ghysels and Wim Vanroose. Modeling the performance of geometric multigrid stencils on multi-core computer architectures. *SIAM Journal on Scientific Computing*, 37(2):C194–C216, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV16] Laurent Gosse and Nicolas Vauchelet. Numerical high-field limits in two-stream ki-

- netic models and 1D aggregation equations. *SIAM Journal on Scientific Computing*, 38(1):A412–A434, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV19] Martin J. Gander and Tommaso Vanzan. Heterogeneous optimized Schwarz methods for second order elliptic PDEs. *SIAM Journal on Scientific Computing*, 41(4):A2329–A2354, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GV20] Martin J. Gander and Tommaso Vanzan. Multilevel optimized Schwarz methods. *SIAM Journal on Scientific Computing*, 42(5):A3180–A3209, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GvdV17] Sjoerd Geervers and J. J. W. van der Vegt. Sharp penalty term and time step bounds for the interior penalty discontinuous Galerkin method for linear hyperbolic problems. *SIAM Journal on Scientific Computing*, 39(5):A1851–A1878, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GVMM14] Stefan Güttel, Roel Van Beeumen, Karl Meerbergen, and Wim Michiels. NLEIGS: a class of fully rational Krylov methods for nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 36(6):A2842–A2864, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GVP06] Pritam Ganguly, Stephen A. Vavasis, and Katerina D. Papoulia. An algorithm for two-dimensional mesh generation based on the pinwheel tiling. *SIAM Journal on Scientific Computing*, 28(4):1533–1562, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GvR22] Thomas Gillis and Wim M. van Rees. MURPHY — a scalable multiresolution framework for scientific computing on 3D block-structured collocated grids. *SIAM Journal on Scientific Computing*, 44(5):C367–C398, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://>

/epubs.siam.org/doi/10.1137/21M141676X.

Golub:1998:IIS

[GW98]

Gene H. Golub and Andrew J. Wathen. An iteration for indefinite systems and its application to the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 19(2):530–539, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29382>.

Gunther:2000:ICL

[GW00]

Michael Günther and Yvonne Wagner. Index concepts for linear mixed systems of differential-algebraic and hyperbolic-type equations. *SIAM Journal on Scientific Computing*, 22(5):1610–1629, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34905>.

Ghanem:2004:SIU

[GW04a]

Roger G. Ghanem and Steven F. Wojtkiewicz. Special issue on uncertainty quantification. *SIAM Journal on Scientific Computing*, 26(2):vii, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97416>.

/epubs.siam.org/sam-bin/dbq/article/97416.

Gustafsson:2004:TCD

[GW04b]

Bertil Gustafsson and Per Wahlund. Time compact difference methods for wave propagation in discontinuous media. *SIAM Journal on Scientific Computing*, 26(1):272–293, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42590>.

Gao:2015:SOP

[GW15]

Zhiming Gao and Jiming Wu. A second-order positivity-preserving finite volume scheme for diffusion equations on general meshes. *SIAM Journal on Scientific Computing*, 37(1):A420–A438, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gazzola:2017:FNL

[GW17]

Silvia Gazzola and Yves Wiaux. Fast nonnegative least squares through flexible Krylov subspaces. *SIAM Journal on Scientific Computing*, 39(2):A655–A679, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Geiersbach:2020:SGM

- [GW20] Caroline Geiersbach and Winnifried Wollner. A stochastic gradient method with mesh refinement for PDE-Constrained optimization under uncertainty. *SIAM Journal on Scientific Computing*, 42(5):A2750–A2772, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GX16a]

Greene:2022:AME

- [GWBW22] Samuel M. Greene, Robert J. Webber, Timothy C. Berkelbach, and Jonathan Weare. Approximating matrix eigenvalues by subspace iteration with repeated random sparsification. *SIAM Journal on Scientific Computing*, 44(5):A3067–A3097, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1422513>. [GX16b]

Gansterer:2003:CAE

- [GWMG03] Wilfried N. Gansterer, Robert C. Ward, Richard P. Muller, and William A. Goddard III. Computing approximate eigenpairs of symmetric block tridiagonal matrices. *SIAM Journal on Scientific Computing*, 25(1):65–85, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

epubs.siam.org/sam-bin/dbq/article/39943.

Gander:2016:OSMa

Martin J. Gander and Yingxiang Xu. Optimized Schwarz methods for model problems with continuously variable coefficients. *SIAM Journal on Scientific Computing*, 38(5):A2964–A2986, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Guo:2016:LDG

Ruihan Guo and Yan Xu. Local discontinuous Galerkin method and high order semi-implicit scheme for the phase field crystal equation. *SIAM Journal on Scientific Computing*, 38(1):A105–A127, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Guo:2020:HON

Ruihan Guo and Yan Xu. High order numerical simulations for the binary fluid–surfactant system using the discontinuous Galerkin and spectral deferred correction methods. *SIAM Journal on Scientific Computing*, 42(2):B353–B378, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [GXY15] **Gong:2015:MCM**
Wei Gong, Hehu Xie, and Ningning Yan. A multilevel correction method for optimal controls of elliptic equations. *SIAM Journal on Scientific Computing*, 37(5):A2198–A2221, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GXZ21] **Gu:2021:EEP**
Haotian Gu, Jack Xin, and Zhiwen Zhang. Error estimates for a POD method for solving viscous G -equations in incompressible cellular flows. *SIAM Journal on Scientific Computing*, 43(1):A636–A662, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GY99] **Golub:1999:IPC**
Gene H. Golub and Qiang Ye. Inexact preconditioned conjugate gradient method with inner-outer iteration. *SIAM Journal on Scientific Computing*, 21(4):1305–1320, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32341>.
- [GY02] **Golub:2002:IFP**
Gene H. Golub and Qiang Ye. An inverse free preconditioned Krylov subspace method for symmetric generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 24(1):312–334, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38257>.
- [GY05] **Goldfarb:2005:SOC**
Donald Goldfarb and Wotao Yin. Second-order cone programming methods for total variation-based image restoration. *SIAM Journal on Scientific Computing*, 27(2):622–645, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60898>.
- [GY06] **Givelberg:2006:DIB**
E. Givelberg and K. Yelick. Distributed immersed boundary simulation in titanium. *SIAM Journal on Scientific Computing*, 28(4):1361–1378, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [GY09] **Goldfarb:2009:PMF**
Donald Goldfarb and Wotao Yin. Parametric maximum flow algorithms for fast total variation minimization. *SIAM Journal on Scientific Computing*, 31(5):3712–3743,

- ???? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GZ16]
- [GY17] Hui Guo and Yang Yang. Bound-preserving discontinuous Galerkin method for compressible miscible displacement in porous media. *SIAM Journal on Scientific Computing*, 39(5):A1969–A1990, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [GZ19]
- [GYZ11] Benjamin Ganis, Ivan Yotov, and Ming Zhong. A stochastic mortar mixed finite element method for flow in porous media with multiple rock types. *SIAM Journal on Scientific Computing*, 33(3):1439–1474, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1439_s1
- [GYZ23] Zhiwei Gao, Liang Yan, and Tao Zhou. Failure-informed adaptive sampling for PINNs. *SIAM Journal on Scientific Computing*, 45(4):A1971–A1994, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1527763>. [GZW18]
- Gander:2016:OSMb**
- Martin J. Gander and Hui Zhang. Optimized Schwarz methods with overlap for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 38(5):A3195–A3219, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gunzburger:2019:DDC**
- Max D. Gunzburger and Wenju Zhao. Descriptions, discretizations, and comparisons of time/space colored and white noise forcings of the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 41(4):A2579–A2602, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Guo:2019:EMM**
- Ling Guo, Fanhai Zeng, Ian Turner, Kevin Burrage, and George Em Karniadakis. Efficient multistep methods for tempered fractional calculus: Algorithms and simulations. *SIAM Journal on Scientific Computing*, 41(4):A2510–A2535, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Gong:2018:SOF**
- Yuezheng Gong, Jia Zhao, and Qi Wang. Second order

fully discrete energy stable methods on staggered grids for hydrodynamic phase field models of binary viscous fluids. *SIAM Journal on Scientific Computing*, 40(2):B528–B553, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gong:2020:AHO

[GZW20]

Yuezheng Gong, Jia Zhao, and Qi Wang. Arbitrarily high-order unconditionally energy stable schemes for thermodynamically consistent gradient flow models. *SIAM Journal on Scientific Computing*, 42(1):B135–B156, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Gong:2018:FDS

[GZYW18]

Yuezheng Gong, Jia Zhao, Xiaogang Yang, and Qi Wang. Fully discrete second-order linear schemes for hydrodynamic phase field models of binary viscous fluid flows with variable densities. *SIAM Journal on Scientific Computing*, 40(1):B138–B167, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haber:2001:FFV

[HA01]

E. Haber and U. M. Ascher. Fast finite vol-

ume simulation of 3D electromagnetic problems with highly discontinuous coefficients. *SIAM Journal on Scientific Computing*, 22(6):1943–1961, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36074>.

Huang:2008:SMS

[HA08]

H. Huang and U. Ascher. Surface mesh smoothing, regularization, and feature detection. *SIAM Journal on Scientific Computing*, 31(1):74–93, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hoft:2017:FUM

[HA17]

Thomas A. Höft and Bradley K. Alpert. Fast updating multipole Coulombic potential calculation. *SIAM Journal on Scientific Computing*, 39(3):A1038–A1061, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hager:2000:IMN

[Hag00]

William W. Hager. Iterative methods for nearly singular linear systems. *SIAM Journal on Scientific Computing*, 22(2):747–766, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/34634.

Hager:2002:MPS

[Hag02]

William W. Hager. Minimizing the profile of a symmetric matrix. *SIAM Journal on Scientific Computing*, 23(5):1799–1816, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37921>.

Hart:2017:ECS

[HAG17]

J. L. Hart, A. Alexanderian, and P. A. Gremaud. Efficient computation of Sobol’ indices for stochastic models. *SIAM Journal on Scientific Computing*, 39(4):A1514–A1530, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hansen:1995:TMR

[Han95]

Per Christian Hansen. Test matrices for regularization methods. *SIAM Journal on Scientific Computing*, 16(2):506–512, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hu:2019:SCT

[HAN19]

Yunyi Hu, Martin S. Andersen, and James G. Nagy. Spectral computed tomography with linearization and preconditioning. *SIAM Journal on Scientific Computing*,

41(5):S370–S389, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hartmann:2008:MEE

[Har08]

Ralf Hartmann. Multitarget error estimation and adaptivity in aerodynamic flow simulations. *SIAM Journal on Scientific Computing*, 31(1):708–731, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Harlim:2011:IIS

[Har11]

John Harlim. Interpolating irregularly spaced observations for filtering turbulent complex systems. *SIAM Journal on Scientific Computing*, 33(5):2620–2640, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2620_s1.

Herman:2020:RRM

[HAS20]

Elizabeth Herman, Alen Alexanderian, and Arvind K. Saibaba. Randomization and reweighted ℓ_1 -minimization for a-optimal design of linear inverse problems. *SIAM Journal on Scientific Computing*, 42(3):A1714–A1740, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [Haz08a] **Hazra:2008:MOSa**
 Subhendu Bikash Hazra. Multigrid one-shot method for aerodynamic shape optimization. *SIAM Journal on Scientific Computing*, 30(3):1527–1547, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Haz08b] **Hazra:2008:MOSb**
 Subhendu Bikash Hazra. Multigrid one-shot method for state constrained aerodynamic shape optimization. *SIAM Journal on Scientific Computing*, 30(6):3220–3248, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HB97] **Howell:1997:AMP**
 Louis H. Howell and John B. Bell. An adaptive mesh projection method for viscous incompressible flow. *SIAM Journal on Scientific Computing*, 18(4):996–1013, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27055>.
- [HBB⁺16] **Harrison:2016:MMA**
 Robert J. Harrison, Gregory Beylkin, Florian A. Bischoff, Justus A. Calvin, George I. Fann, Jacob Fosso-Tande, Diego Galindo, Jeff R. Hammond, Rebecca Hartman-Baker, Judith C. Hill, Jun Jia, Jakob S. Kottmann, M-J. Yvonne Ou, Junchen Pei, Laura E. Ratcliff, Matthew G. Reuter, Adam C. Richie-Halford, Nichols A. Romero, Hideo Sekino, William A. Shelton, Bryan E. Sundahl, W. Scott Thornton, Edward F. Valeev, Álvaro Vázquez-Mayagoitia, Nicholas Vence, Takeshi Yanai, and Yukina Yokoi. MADNESS: a multiresolution, adaptive numerical environment for scientific simulation. *SIAM Journal on Scientific Computing*, 38(5):S123–S142, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HBJ04] **Hirshman:2004:DDG**
 S. P. Hirshman, L. A. Berry, and S. Jesse. Dynamic database generation for efficient calculation of stellarator plasma equilibria. *SIAM Journal on Scientific Computing*, 25(6):1880–1895, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42458>.
- [HBL05] **Helzel:2005:HRR**
 Christiane Helzel, Marsha J. Berger, and Randall J. LeVeque. A high-resolution ro-

tated grid method for conservation laws with embedded geometries. *SIAM Journal on Scientific Computing*, 26(3):785–809, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43028>. [HC95]

Holmgren:2000:CAL

[HBS00] Sverker Holmgren, Henrik Brandén, and Erik Sterner. Convergence acceleration for the linearized Navier–Stokes equations using semicirculant approximations. *SIAM Journal on Scientific Computing*, 21(4):1524–1550, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31798>. [HC98]

Hovland:1997:EDC

[HBSC97] P. Hovland, C. Bischof, D. Spiegelman, and M. Casella. Efficient derivative codes through automatic differentiation and interface contraction: An application in biostatistics. *SIAM Journal on Scientific Computing*, 18(4):1056–1066, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28180>. [HC05]

Hilditch:1995:FTM

James Hilditch and Phillip Colella. A front tracking method for compressible flames in one dimension. *SIAM Journal on Scientific Computing*, 16(4):755–772, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hristopoulos:1998:NIS

Dionissios T. Hristopoulos and George Christakos. Numerical implementation of a space-transformation approach for solving the three-dimensional flow equation. *SIAM Journal on Scientific Computing*, 20(2):619–647, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27872>.

Hawkins:2005:IWS

Stuart C. Hawkins and Ke Chen. An implicit wavelet sparse approximate inverse preconditioner. *SIAM Journal on Scientific Computing*, 27(2):667–686, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42350>.

- [HC18] **Hokanson:2018:DDP**
 Jeffrey M. Hokanson and Paul G. Constantine. Data-driven polynomial ridge approximation using variable projection. *SIAM Journal on Scientific Computing*, 40(3):A1566–A1589, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HC20a] **Hu:2020:BSM**
 Zhicheng Hu and Zhenning Cai. Burnett spectral method for high-speed rarefied gas flows. *SIAM Journal on Scientific Computing*, 42(5):B1193–B1226, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HC20b] **Huang:2020:AMD**
 Juntao Huang and Yingda Cheng. An adaptive multiresolution discontinuous Galerkin method with artificial viscosity for scalar hyperbolic conservation laws in multidimensions. *SIAM Journal on Scientific Computing*, 42(5):A2943–A2973, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HC21] **Hokanson:2021:LMP**
 Jeffrey M. Hokanson and Paul G. Constantine. A Lipschitz matrix for parameter reduction in computational science. *SIAM Journal on Scientific Computing*, 43(3):A1858–A1880, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HCHS13] **Homa:2013:BPC**
 Laura Homa, Daniela Calvetti, Alexander Hoover, and Erkki Somersalo. Bayesian preconditioned CGLS for source separation in MEG time series. *SIAM Journal on Scientific Computing*, 35(3):B778–B798, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HCHY23] **Hu:2023:STR**
 Yixiao Hu, Lihui Chai, Zhongyi Huang, and Xu Yang. Seismic tomography with random batch gradient reconstruction. *SIAM Journal on Scientific Computing*, 45(3):B314–B336, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452342>.
- [HCL23] **Hu:2023:GOA**
 Yukuan Hu, Huajie Chen, and Xin Liu. A global optimization approach for multimarginal optimal transport problems with Coulomb cost. *SIAM Journal on Scientific Computing*, 45(3):A1214–A1238, 2023.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1455164>.
- [HCRT13] **Hegemann:2013:EUS** [HD15] Jan Hegemann, Alejandro Cantarero, Casey L. Richardson, and Joseph M. Teran. An explicit update scheme for inverse parameter and interface estimation of piecewise constant coefficients in linear elliptic PDEs. *SIAM Journal on Scientific Computing*, 35(2):A1098–A1119, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HCW20] **Hu:2020:NSM** [HDB08] Zhicheng Hu, Zhenning Cai, and Yanli Wang. Numerical simulation of microflows using Hermite spectral methods. *SIAM Journal on Scientific Computing*, 42(1):B105–B134, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HCX22] **Hou:2022:FOM** [HDF+19] Shijin Hou, Yanlai Chen, and Yinhua Xia. Fast L^2 optimal mass transport via reduced basis methods for the Monge–Ampère equation. *SIAM Journal on Scientific Computing*, 44(6):A3536–A3559, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hicken:2015:FIS** Jason E. Hicken and Alp Dener. A flexible iterative solver for nonconvex, equality-constrained quadratic subproblems. *SIAM Journal on Scientific Computing*, 37(4):A1801–A1824, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hogea:2008:BTI** Cosmina Hogea, Christos Davatzikos, and George Biros. Brain–tumor interaction biophysical models for medical image registration. *SIAM Journal on Scientific Computing*, 30(6):3050–3072, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Howse:2019:PTM** Alexander J. Howse, Hans De Sterck, Robert D. Falgout, Scott MacLachlan, and Jacob Schroder. Parallel-in-time multigrid with adaptive spatial coarsening for the linear advection and inviscid Burgers equations. *SIAM Journal on Scientific Computing*, 41(1):A538–A565, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HDOS23] **Huang:2023:GGS**
Na Huang, Yu-Hong Dai, Dominique Orban, and Michael A. Saunders. On GSOR, the generalized successive overrelaxation method for double saddle-point problems. *SIAM Journal on Scientific Computing*, 45(5):A2185–A2206, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1515884>.
- [HDZ16] **Hicken:2016:MSP**
Jason E. Hicken, David C. Del Rey Fernández, and David W. Zingg. Multi-dimensional summation-by-parts operators: General theory and application to simplex elements. *SIAM Journal on Scientific Computing*, 38(4):A1935–A1958, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Heg95] **Hegland:1995:IMM**
Markus Hegland. An implementation of multiple and multivariate Fourier transforms on vector processors. *SIAM Journal on Scientific Computing*, 16(2):271–288, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HEGH14] **Holm:2014:DAA**
Marcus Holm, Stefan Engblom, Anders Goude, and Sverker Holmgren. Dynamic autotuning of adaptive fast multipole methods on hybrid multicore CPU and GPU systems. *SIAM Journal on Scientific Computing*, 36(4):C376–C399, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hei96] **Heinrichs:1996:DCC**
Wilhelm Heinrichs. Defect correction for convection-dominated flow. *SIAM Journal on Scientific Computing*, 17(5):1082–1091, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24373>.
- [Hei13] **Heitzig:2013:MTB**
Jobst Heitzig. Moving Taylor Bayesian regression for non-parametric multidimensional function estimation with possibly correlated errors. *SIAM Journal on Scientific Computing*, 35(4):A1928–A1950, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hel11] **Helsing:2011:FSS**
Johan Helsing. A fast and stable solver for singular integral equations on piecewise smooth curves. *SIAM Journal on Scientific Computing*, 33(1):153–

- 174, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p153_s1. [Her08]
- [Hen05a] **Henn:2005:MMF**
 Stefan Henn. A multigrid method for a fourth-order diffusion equation with application to image processing. *SIAM Journal on Scientific Computing*, 27(3):831–849, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hen05b] **Henshaw:2005:MOG**
 William D. Henshaw. On multigrid for overlapping grids. *SIAM Journal on Scientific Computing*, 26(5):1547–1572, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60373>. [Hes98]
- [Hen06] **Henshaw:2006:HOA**
 William D. Henshaw. A high-order accurate parallel solver for Maxwell’s equations on overlapping grids. *SIAM Journal on Scientific Computing*, 28(5):1730–1765, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HFL11]
- Herty:2008:CCN**
 Michael Herty. Coupling conditions for networked systems of Euler equations. *SIAM Journal on Scientific Computing*, 30(3):1596–1612, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hesthaven:1997:SPM**
 J. S. Hesthaven. A stable penalty method for the compressible Navier–Stokes equations. II. One-dimensional domain decomposition schemes. *SIAM Journal on Scientific Computing*, 18(3):658–685, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27654>.
- Hesthaven:1998:SPM**
 J. S. Hesthaven. A stable penalty method for the compressible Navier–Stokes equations: III. multidimensional domain decomposition schemes. *SIAM Journal on Scientific Computing*, 20(1):62–93, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29947>.
- Huang:2011:MPA**
 Y. Huang, P. A. Forsyth, and G. Labahn. Meth-

ods for pricing American options under regime switching. *SIAM Journal on Scientific Computing*, 33(5):2144–2168, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2144_s1

Howard:2016:BAI

[HFL⁺16]

Marylesa Howard, Michael Fowler, Aaron Luttmann, Stephen E. Mitchell, and Margaret C. Hock. Bayesian Abel inversion in quantitative X-ray radiography. *SIAM Journal on Scientific Computing*, 38(3):B396–B413, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hesthaven:1996:SPM

[HG96]

J. S. Hesthaven and D. Gottlieb. A stable penalty method for the compressible Navier–Stokes equations. I. open boundary conditions. *SIAM Journal on Scientific Computing*, 17(3):579–612, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26848>.

Hadjinicolaou:1998:ASS

[HG98]

M. Hadjinicolaou and D. A. Goussis. Asymptotic solution

[HG00]

of stiff PDEs with the CSP method: The reaction diffusion equation. *SIAM Journal on Scientific Computing*, 20(3):781–810, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30399>.

Huang:2000:FDS

Jingfang Huang and Leslie Greengard. A fast direct solver for elliptic partial differential equations on adaptively refined meshes. *SIAM Journal on Scientific Computing*, 21(4):1551–1566, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34623>.

Hagstrom:2002:ARB

[HG02]

Thomas Hagstrom and John Goodrich. Accurate radiation boundary conditions for the linearized Euler equations in Cartesian domains. *SIAM Journal on Scientific Computing*, 24(3):770–795, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39591>.

Ho:2012:FDS

[HG12]

Kenneth L. Ho and Leslie

- Greengard. A fast direct solver for structured linear systems by recursive skeletonization. *SIAM Journal on Scientific Computing*, 34(5):A2507–A2532, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HGK97] Ning Hu, Xian-Zhong Guo, and I. Norman Katz. Multi- p preconditioners. *SIAM Journal on Scientific Computing*, 18(6):1676–1697, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27936>. **Hu:1997:MP**
- [HGZ17] Greengard, Hu, and Zhang. A fast direct solver for structured linear systems by recursive skeletonization. *SIAM Journal on Scientific Computing*, 38(5):S217–S239, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Huang:2017:SPL**
- [HGZ17] Wen Huang, K. A. Gallivan, and Xiangxiong Zhang. Solving PhaseLift by low-rank Riemannian optimization methods for complex semidefinite constraints. *SIAM Journal on Scientific Computing*, 39(5):B840–B859, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HGPM14] Jeffrey D. Hyman, Carl W. Gable, Scott L. Painter, and Natalia Makedonska. Conforming Delaunay triangulation of stochastically generated three dimensional discrete fracture networks: a feature rejection algorithm for meshing strategy. *SIAM Journal on Scientific Computing*, 36(4):A1871–A1894, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38908>. **Hyman:2014:CDT**
- [HH02] Ralf Hartmann and Paul Houston. Adaptive discontinuous Galerkin finite element methods for nonlinear hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 24(3):979–1004, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38908>. **Hartmann:2002:ADG**
- [HH11] Lior Horesh and Eldad Haber. A second order discretization of Maxwell's equations in the quasi-static regime on OcTree grids. *SIAM Journal on Scientific Computing*, 33(5):2805–
- [HGRW16] Markus Huber, Björn Gmeiner, Ulrich Rude, and Barbara Wohlmuth. Resilience for massively parallel multigrid

- 2822, ????. 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2805_s1 [HHK19]
- [HH13] Patrice Hauret and Frédéric Hecht. A discrete differential sequence for elasticity based upon continuous displacements. *SIAM Journal on Scientific Computing*, 35(1):B291–B314, ????. 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Hauret:2013:DDS**
- [HH16] M. Homolya and D. A. Ham. A parallel edge orientation algorithm for quadrilateral meshes. *SIAM Journal on Scientific Computing*, 38(5):S48–S61, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Homolya:2016:PEO**
- [HHE10] Weimin Han, Jianguo Huang, and Joseph A. Eichholz. Discrete-ordinate discontinuous Galerkin methods for solving the radiative transfer equation. *SIAM Journal on Scientific Computing*, 32(2):477–497, ????. 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Han:2010:DOD**
- [HHL07] Xian-Liang Hu, Dan-Fu Han, and Ming-Jun Lai. Bivariate splines of various degrees for numerical solution of partial differential equations. *SIAM Journal on Scientific Computing*, 29(3):1338–1354, ????. 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Hu:2007:BSV**
- [HHL15] Tsung-Ming Huang, Wei-Qiang Huang, and Wen-Wei Lin. A robust numerical algorithm for computing Maxwell’s transmission eigenvalue problems. *SIAM Journal on Scientific Computing*, 37(5):A2403–A2423, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Huang:2015:RNA**
- [HHL00] Fred J. Hickernell, Hee Sun Hong, Pierre L’Écuyer, and Alexander Heinlein, Christian Hochmuth, and Axel Klawonn. Monolithic overlapping Schwarz domain decomposition methods with GDSW coarse spaces for incompressible fluid flow problems. *SIAM Journal on Scientific Computing*, 41(4):C291–C316, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Heinlein:2019:MOS**
- [HLL00] Fred J. Hickernell, Hee Sun Hong, Pierre L’Écuyer, and

- Christiane Lemieux. Extensible lattice sequences for quasi-Monte Carlo quadrature. *SIAM Journal on Scientific Computing*, 22(3): 1117–1138, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35663>.
- [HHL15] **Harding:2015:FTC**
Brendan Harding, Markus Hegland, Jay Larson, and James Southern. Fault tolerant computation with the sparse grid combination technique. *SIAM Journal on Scientific Computing*, 37(3): C331–C353, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHLW15] **Huang:2015:NSF**
Yin-Liang Huang, Tsung-Ming Huang, Wen-Wei Lin, and Wei-Cheng Wang. A null space free Jacobi–Davidson iteration for Maxwell’s operator. *SIAM Journal on Scientific Computing*, 37(1): A1–A29, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHLZ21] **Han:2021:PPP**
Daoru Han, Xiaoming He, David Lund, and Xu Zhang. PIFE-PIC: Parallel immersed finite element particle-in-cell for 3-D kinetic simulations of plasma-material interactions. *SIAM Journal on Scientific Computing*, 43(3): C235–C257, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHM07] **Haber:2007:OMP**
Eldad Haber, Stefan Heldmann, and Jan Modersitzki. An octree method for parametric image registration. *SIAM Journal on Scientific Computing*, 29(5):2008–2023, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHM08] **Haber:2008:AMR**
Eldad Haber, Stefan Heldmann, and Jan Modersitzki. Adaptive mesh refinement for nonparametric image registration. *SIAM Journal on Scientific Computing*, 30(6): 3012–3027, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHM17] **Hall:2017:ADG**
Edward Hall, Paul Houston, and Steven Murphy. *hp*-adaptive discontinuous Galerkin methods for neutron transport criticality problems. *SIAM Journal on Scientific Computing*, 39(5): B916–B942, 2017. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [HHMDC18] Marylesa Howard, Margaret C. Hock, B. T. Meehan, and Leora E. Dresselhaus-Cooper. A locally adapting technique for edge detection using image segmentation. *SIAM Journal on Scientific Computing*, 40(4):B1161–B1179, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHP22] **Howard:2018:LAT** Tapio Helin, Nuutti Hyvönen, and Juha-Pekka Puska. Edge-promoting adaptive Bayesian experimental design for X-ray imaging. *SIAM Journal on Scientific Computing*, 44(3):B506–B530, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1409330>.
- [HHMS15] **Harhanen:2015:EER** [HHR23] Frederik Hennig, Markus Holzer, and Ulrich Rude. Advanced automatic code generation for multiple relaxation-time lattice Boltzmann methods. *SIAM Journal on Scientific Computing*, 45(4):C233–C254, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1531348>.
- [HHP21] **Hannukainen:2021:IHS** [HHRV93] Antti Hannukainen, Nuutti Hyvönen, and Lauri Perkiö. Inverse heat source problem and experimental design for determining iron loss distribution. *SIAM Journal on Scientific Computing*, 43(2):B243–B270, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hadjidimos:1993:ILC** A. Hadjidimos, E. N. Houstis, J. R. Rice, and E. A. Vavalis. Iterative line cubic spline collocation methods for elliptic partial differential equations in several dimensions. *SIAM Journal on Scientific Computing*, 14(3):715–734, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Helin:2022:EPA**
- Hennig:2023:AAC**

- [HHS⁺16] **Hall:2016:CEE** Eric Joseph Hall, Håkon Hoel, Mattias Sandberg, Anders Szepessy, and Raúl Tempone. Computable error estimates for finite element approximations of elliptic partial differential equations with rough stochastic data. *SIAM Journal on Scientific Computing*, 38(6):A3773–A3807, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HHT03] **He:2011:CAA** Yi He, Xing-Biao Hu, Jian-Qing Sun, and Ernst Joachim Weniger. Convergence acceleration algorithm via an equation related to the lattice Boussinesq equation. *SIAM Journal on Scientific Computing*, 33(3):1234–1245, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i3/p1234_s1
- [HHSY22] **Hu:2022:FPG** Jingwei Hu, Xiaodong Huang, Jie Shen, and Haizhao Yang. A fast Petrov–Galerkin spectral method for the multidimensional Boltzmann equation using mapped Chebyshev functions. *SIAM Journal on Scientific Computing*, 44(3):A1497–A1524, 2022. CODEN SJOCE3.
- [HHT03] **Hagstrom:2003:HOR** Thomas Hagstrom, S. I. Hariharan, and David Thompson. High-order radiation boundary conditions for the convective wave equation in exterior domains. *SIAM Journal on Scientific Computing*, 25(3):1088–1101, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41969>.
- [HHvR03] **Hemker:2003:TLF** P. W. Hemker, W. Hoffmann, and M. H. van Raalte. Two-level Fourier analysis of a multigrid approach for discontinuous Galerkin discretization. *SIAM Journal on Scientific Computing*, 25(3):1018–1041, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40510>.
- [HHW00] **Higham:2000:PSE** D. J. Higham, A. R. Humphries, and R. J. Wain. Phase space error control for dynamical systems. *SIAM Journal on Scientific Computing*, 21(6):2275–2294, November 2000. CO-
- ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1420721>.

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33140>.

He:2022:SPN

[HHZ22]

Qing He, Jingwei Hu, and Zhennan Zhou. A structure preserving numerical scheme for Fokker–Planck equations of structured neural networks with learning rules. *SIAM Journal on Scientific Computing*, 44(4):B1045–B1067, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1445600>.

Hokanson:2023:SID

[HID23]

Jeffrey M. Hokanson, Gianluca Iaccarino, and Alireza Doostan. Simultaneous identification and denoising of dynamical systems. *SIAM Journal on Scientific Computing*, 45(4):A1413–A1437, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1486303>.

Higham:1993:AFP

[Hig93]

Nicholas J. Higham. The accuracy of floating point summation. *SIAM Journal on Scientific Computing*, 14(4):783–799, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<http://citeseer.nj.nec.com/higham93accuracy.html>;

<http://citeseer.nj.nec.com/rd/4651150%2C296147%2C1%2C0.25%2CDownload/http%253A%252F%252Fciteseer.nj.nec.com/cache/papers2/>

[cs/14280/http%253AzSzzSzwwww.maths.man.ac.uk/%257EnareportszSznarep198.pdf/higham93accuracy.pdf](http://citeseer.nj.nec.com/rd/4651150%2C296147%2C1%2C0.25%2CDownload/http%253A%252F%252Fwww.maths.man.ac.uk/%257EnareportszSznarep198.pdf/higham93accuracy.pdf);

<http://citeseer.nj.nec.com/rd/4651150%2C296147%2C1%2C0.25%2CDownload/http%253A%252F%252Fwww.maths.man.ac.uk/%257EnareportszSznarep198.ps.gz>.

Higham:1995:SPT

[Hig95]

Nicholas J. Higham. Stability of parallel triangular system solvers. *SIAM Journal on Scientific Computing*, 16(2):400–413, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hundsdorfer:2018:MSC

[HiH18]

W. Hundsdorfer and K. J. in't Hout. On multistep stabilizing correction splitting methods with applications to the Heston model. *SIAM Journal on Scientific Computing*, 40(3):A1408–A1429, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heikkola:2019:PDD

[HIT19]

Erkki Heikkola, Kazufumi Ito, and Jari Toivanen. A parallel domain decomposition

method for the Helmholtz equation in layered media. *SIAM Journal on Scientific Computing*, 41(5):C505–C521, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[HJ18b]

Heise:1998:ESR

[HJ98]

Bodo Heise and Michael Jung. Efficiency, scalability, and robustness of parallel multilevel methods for nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 20(2):553–567, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30991>.

[HJ18c]

Hayes:2007:FSA

[HJ07]

Wayne B. Hayes and Kenneth R. Jackson. A fast shadowing algorithm for high-dimensional ODE systems. *SIAM Journal on Scientific Computing*, 29(4):1738–1758, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[HJ19]

Harrison:2018:HPR

[HJ18a]

A. P. Harrison and D. Joseph. High performance rearrangement and multiplication routines for sparse tensor arithmetic. *SIAM Journal on Scientific Computing*, 40(2):C258–C281, 2018. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heinkenschloss:2018:ROM

Matthias Heinkenschloss and Dörte Jando. Reduced order modeling for time-dependent optimization problems with initial value controls. *SIAM Journal on Scientific Computing*, 40(1):A22–A51, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Helsing:2018:IEM

Johan Helsing and Shidong Jiang. On integral equation methods for the first Dirichlet problem of the biharmonic and modified biharmonic equations in Non-Smooth domains. *SIAM Journal on Scientific Computing*, 40(4):A2609–A2630, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huang:2019:IIJ

Jinzhi Huang and Zhongxiao Jia. On inner iterations of Jacobi–Davidson type methods for large SVD computations. *SIAM Journal on Scientific Computing*, 41(3):A1574–A1603, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hong:2022:MFM

- [HJJ22] Sumin Hong, Ganghee Jang, and Won-Ki Jeong. MG-FIM: A Multi-GPU fast iterative method using adaptive domain decomposition. *SIAM Journal on Scientific Computing*, 44(1):C54–C76, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1414644>.

Hu:2022:WDE

- [HJKK22] Zheyuan Hu, Ameya D. Jagtap, George Em Karniadakis, and Kenji Kawaguchi. When do extended physics-informed neural networks (XPINNs) improve generalization? *SIAM Journal on Scientific Computing*, 44(5):A3158–A3182, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1447039>.

Hu:2019:SQN

- [HJL⁺19] Jiang Hu, Bo Jiang, Lin Lin, Zaiwen Wen, and Yang Yuan. Structured quasi-Newton methods for optimization with orthogonality constraints. *SIAM Journal on Scientific Computing*, 41(4):A2239–A2269, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huang:2018:RDB

- [HJLZ18] Jian Huang, Yuling Jiao, Xiliang Lu, and Liping Zhu. Robust decoding from 1-bit compressive sampling with ordinary and regularized least squares. *SIAM Journal on Scientific Computing*, 40(4):A2062–A2086, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huang:2007:BDB

- [HJMS07] Zhongyi Huang, Shi Jin, Peter A. Markowich, and Christof Sparber. A Bloch decomposition-based split-step pseudospectral method for quantum dynamics with periodic potentials. *SIAM Journal on Scientific Computing*, 29(2):515–538, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haferssas:2017:ASM

- [HJN17] R. Haferssas, P. Jolivet, and F. Nataf. An additive Schwarz method type theory for Lions’s algorithm and a symmetrized optimized restricted additive Schwarz method. *SIAM Journal on Scientific Computing*, 39(4):A1345–A1365, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HJP03] **Holst:2003:MFE** Stefan Holst, Ansgar Jungel, and Paolo Pietra. A mixed finite-element discretization of the energy-transport model for semiconductors. *SIAM Journal on Scientific Computing*, 24(6):2058–2075, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39644>.
- [HJP04] **Holst:2004:AMS** Stefan Holst, Ansgar Jungel, and Paola Pietra. An adaptive mixed scheme for energy-transport simulations of field-effect transistors. *SIAM Journal on Scientific Computing*, 25(5):1698–1716, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41821>.
- [HJS99] **Hendrickson:1999:TEP** Bruce Hendrickson, Elizabeth Jessup, and Christopher Smith. Toward an efficient parallel eigensolver for dense symmetric matrices. *SIAM Journal on Scientific Computing*, 20(3):1132–1154, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30068>.
- [HJS18] **Houssineau:2018:MMC** Jeremie Houssineau, Ajay Jasra, and Sumeetpal S. Singh. Multilevel Monte Carlo for smoothing via transport methods. *SIAM Journal on Scientific Computing*, 40(4):A2315–A2335, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HJX15] **Hu:2015:SGM** Jingwei Hu, Shi Jin, and Dongbin Xiu. A stochastic Galerkin method for Hamilton–Jacobi equations with uncertainty. *SIAM Journal on Scientific Computing*, 37(5):A2246–A2269, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HJX23] **Huang:2023:EEI** Jianguo Huang, Lili Ju, and Yuejin Xu. Efficient exponential integrator finite element method for semilinear parabolic equations. *SIAM Journal on Scientific Computing*, 45(4):A1545–A1570, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1498127>.

- [HJZ23] Hu:2023:SEP Tianhao Hu, Bangti Jin, and Zhi Zhou. Solving elliptic problems with singular sources using singularity splitting deep Ritz method. *SIAM Journal on Scientific Computing*, 45(4):A2043–A2074, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1520840>. [HK02]
- [HK95] Hu:1995:MPM Ning Hu and I. Norman Katz. Multi-P methods: Iterative algorithms for the P-version of the finite element analysis. *SIAM Journal on Scientific Computing*, 16(6):1308–1332, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HK03]
- [HK00] Hendrickson:2000:PRS Bruce Hendrickson and Tamara G. Kolda. Partitioning rectangular and structurally unsymmetric sparse matrices for parallel processing. *SIAM Journal on Scientific Computing*, 21(6):2048–2072, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34147>. [HK17]
- Hui:2002:CSW W. H. Hui and S. Koudriakov. Computation of the shallow water equations using the unified coordinates. *SIAM Journal on Scientific Computing*, 23(5):1615–1654, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36741>.
- Herty:2003:MSO M. Herty and A. Klar. Modeling, simulation, and optimization of traffic flow networks. *SIAM Journal on Scientific Computing*, 25(3):1066–1087, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41459>.
- Higham:2017:CAT Nicholas J. Higham and Peter Kandolf. Computing the action of trigonometric and hyperbolic matrix functions. *SIAM Journal on Scientific Computing*, 39(2):A613–A627, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hapla:2021:FPM Vaclav Hapla, Matthew G. Knepley, Michael Afanasiev, [HKA⁺21]

- Christian Boehm, Martin van Driel, Lion Krischer, and Andreas Fichtner. Fully parallel mesh I/O using PETSc DMPlex with an application to waveform modeling. *SIAM Journal on Scientific Computing*, 43(2):C127–C153, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HKD13]
- [HKB21] Johannes Holke, David Knapp, and Carsten Burstedde. An optimized, parallel computation of the ghost layer for adaptive hybrid forest meshes. *SIAM Journal on Scientific Computing*, 43(6):C359–C385, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Holke:2021:OPC] [HKF+13]
- [HKK+04] Dave Higdon, Marc Kennedy, James C. Cavendish, John A. Cafeo, and Robert D. Ryne. Combining field data and computer simulations for calibration and prediction. *SIAM Journal on Scientific Computing*, 26(2):448–466, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42669>. [HKK+13]
- [HKK+22] Alexander Heinlein, Axel Klawonn, Jascha Knepfer, Oliver Rheinbach, and Olof B. Widlund. Adaptive [Howle:2013:BPC]
- Victoria E. Howle, Robert C. Kirby, and Geoffrey Dillon. Block preconditioners for coupled physics problems. *SIAM Journal on Scientific Computing*, 35(5):S368–S385, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hamlington:2013:EGB] K. L. Hamlington, Y.-Y. Kwan, H. Fujioka, R. Cortez, and D. P. Gaver III. Evaluation of grid-based and grid-free methods to model microchannel transport-reaction. *SIAM Journal on Scientific Computing*, 35(4):B846–B867, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hamalainen:2013:ST] Keijo Hämäläinen, Aki Kallonen, Ville Kolehmainen, Matti Lassas, Kati Niinimäki, and Samuli Siltanen. Sparse tomography. *SIAM Journal on Scientific Computing*, 35(3):B644–B665, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Heinlein:2022:AGC] Alexander Heinlein, Axel Klawonn, Jascha Knepfer, Oliver Rheinbach, and Olof B. Widlund. Adaptive

GDSW coarse spaces of reduced dimension for overlapping Schwarz methods. *SIAM Journal on Scientific Computing*, 44(3):A1176–A1204, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1364540>.

Heinlein:2019:AGC

[HKKR19]

Alexander Heinlein, Axel Klawonn, Jascha Knepper, and Oliver Rheinbach. Adaptive GDSW coarse spaces for overlapping Schwarz methods in three dimensions. *SIAM Journal on Scientific Computing*, 41(5):A3045–A3072, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

He:2022:RID

[HKL⁺22]

Yuchen He, Sung-Ha Kang, Wenjing Liao, Hao Liu, and Yingjie Liu. Robust identification of differential equations by numerical techniques from a single set of noisy observation. *SIAM Journal on Scientific Computing*, 44(3):A1145–A1175, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M134513X>.

Heinlein:2023:AND

[HKL23]

Alexander Heinlein, Axel Klawonn, and Martin Lanser.

Adaptive nonlinear domain decomposition methods with an application to the p -Laplacian. *SIAM Journal on Scientific Computing*, 45(3):S152–S172, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1433605>.

Heinlein:2019:MLA

[HKLW19]

Alexander Heinlein, Axel Klawonn, Martin Lanser, and Janine Weber. Machine learning in adaptive domain decomposition methods — predicting the geometric location of constraints. *SIAM Journal on Scientific Computing*, 41(6):A3887–A3912, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heinlein:2021:CML

[HKLW21]

Alexander Heinlein, Axel Klawonn, Martin Lanser, and Janine Weber. Combining machine learning and adaptive coarse spaces — a hybrid approach for robust FETI-DP methods in three dimensions. *SIAM Journal on Scientific Computing*, 43(5):S816–S838, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huang:1997:CIT

[HKM97]

Mingyou Huang, Tassilo

Küpper, and Norbert Masbaum. Computation of invariant tori by the Fourier methods. *SIAM Journal on Scientific Computing*, 18(3): 918–942, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25882>.

Hellman:2020:NUP

[HKM20]

Fredrik Hellman, Tim Keil, and Axel Målqvist. Numerical upscaling of perturbed diffusion problems. *SIAM Journal on Scientific Computing*, 42(4):A2014–A2036, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hegland:1999:PAR

[HKO99]

Markus Hegland, Margaret Kahn, and Michael Osborne. A parallel algorithm for the reduction to tridiagonal form for eigen-decomposition. *SIAM Journal on Scientific Computing*, 21(3):987–1005, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29671>.

Haasdonk:2023:NCH

[HKO⁺23]

Bernard Haasdonk, Hendrik Kleikamp, Mario Ohlberger, Felix Schindler, and Tizian Wenzel. A new certi-

fied hierarchical and adaptive RB-ML-ROM surrogate model for parametrized PDEs. *SIAM Journal on Scientific Computing*, 45(3): A1039–A1065, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1493318>.

Haase:2002:PAM

[HKR02]

Gundolf Haase, Michael Kuhn, and Stefan Reitzinger. Parallel algebraic multigrid methods on distributed memory computers. *SIAM Journal on Scientific Computing*, 24(2):410–427, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38623>.

Heinlein:2016:PIT

[HKR16]

Alexander Heinlein, Axel Klawonn, and Oliver Rheinbach. A parallel implementation of a two-level overlapping Schwarz method with energy-minimizing coarse space based on Trilinos. *SIAM Journal on Scientific Computing*, 38(6):C713–C747, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hough:2001:APP

[HKT01]

Patricia D. Hough, Tamara G. Kolda, and Virginia J. Tor-

- zon. Asynchronous parallel pattern search for nonlinear optimization. *SIAM Journal on Scientific Computing*, 23(1):134–156, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36582>.
- [HKYY16] **Ha:2016:SOW** [HL98] Youngsoo Ha, Chang Ho Kim, Hyoseon Yang, and Jungho Yoon. Sixth-order weighted essentially nonoscillatory schemes based on exponential polynomials. *SIAM Journal on Scientific Computing*, 38(4):A1987–A2017, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HL95] **Hendrickson:1995:ISG** [HL09] Bruce Hendrickson and Robert Leland. An improved spectral graph partitioning algorithm for mapping parallel computations. *SIAM Journal on Scientific Computing*, 16(2):452–469, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HL97] **Huang:1997:AVM** [HL10] Weizhang Huang and Benedict Leimkuhler. The adaptive Verlet method. *SIAM Journal on Scientific Computing*, 18(1):239–256, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28465>. Dedicated to C. William Gear on the occasion of his 60th birthday.
- Hochbruck:1998:EAK**
- Marlis Hochbruck and Christian Lubich. Error analysis of Krylov methods in a nutshell. *SIAM Journal on Scientific Computing*, 19(2):695–701, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29045>.
- He:2009:FES**
- Xiaoming He and Tao Lü. A finite element splitting extrapolation for second order hyperbolic equations. *SIAM Journal on Scientific Computing*, 31(6):4244–4265, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hochbruck:2010:MJD**
- Marlis Hochbruck and Dominik Löchel. A multilevel Jacobi–Davidson method for polynomial PDE eigenvalue problems arising in plasma physics. *SIAM Journal on Scientific Computing*, 32(6):3151–3169, ??? 2010. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Hu:2017:NMP

[HL17]

Qiya Hu and Xuan Li. Novel multilevel preconditioners for the systems arising from plane wave discretization of Helmholtz equations with large wave numbers. *SIAM Journal on Scientific Computing*, 39(4):A1675–A1709, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[HLD12]

Schwarz methods and energy minimizing coarse spaces for unstructured grids. *SIAM Journal on Scientific Computing*, 42(4):A2461–A2488, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haidar:2012:THP

Azzam Haidar, Hatem Ltaief, and Jack Dongarra. Toward a high performance tile divide and conquer algorithm for the dense symmetric eigenvalue problem. *SIAM Journal on Scientific Computing*, 34(6):C249–C274, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huroyan:2018:DRS

[HL18]

Vahan Huroyan and Gilad Lerman. Distributed robust subspace recovery. *SIAM Journal on Scientific Computing*, 40(5):A3067–A3090, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[HLL+22]

Huang:2022:CAM

Juntao Huang, Yong Liu, Yuan Liu, Zhanjing Tao, and Yingda Cheng. A class of adaptive multiresolution ultra-weak discontinuous Galerkin methods for some nonlinear dispersive wave equations. *SIAM Journal on Scientific Computing*, 44(2):A745–A769, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1411391>.

Hohmann:2019:SOP

[HL19]

Raphael Hohmann and Christian Leithäuser. Shape optimization of a polymer distributor using an Eulerian residence time model. *SIAM Journal on Scientific Computing*, 41(4):B625–B648, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heinlein:2020:AHN

[HL20]

Alexander Heinlein and Martin Lanser. Additive and hybrid nonlinear two-level

[HLLM15]

Xiaoming He, Jian Li, Yanping Lin, and Ju Ming. A domain decomposition

He:2015:DDM

method for the steady-state Navier–Stokes–Darcy model with Beavers–Joseph interface condition. *SIAM Journal on Scientific Computing*, 37(5):S264–S290, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hwang:2003:NSQ

[HLM03]

Tsung-Min Hwang, Wen-Wei Lin, and Volker Mehrmann. Numerical solution of quadratic eigenvalue problems with structure-preserving methods. *SIAM Journal on Scientific Computing*, 24(4):1283–1302, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39220>.

[HLMM06]

Heys:2009:EMC

[HLM⁺09]

J. J. Heys, E. Lee, T. A. Manteuffel, S. F. McCormick, and J. W. Ruge. Enhanced mass conservation in least-squares methods for Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 31(3):2303–2321, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Huang:2016:NTM

[HLM16]

Tsung-Ming Huang, Wen-Wei Lin, and Volker Mehrmann. A Newton-type method with nonequivalence deflation for

[HLNS19]

nonlinear eigenvalue problems arising in photonic crystal modeling. *SIAM Journal on Scientific Computing*, 38(2):B191–B218, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heys:2006:MCL

J. J. Heys, E. Lee, T. A. Manteuffel, and S. F. McCormick. On mass-conserving least-squares methods. *SIAM Journal on Scientific Computing*, 28(5):1675–1693, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Henson:1996:MIR

[HLMR96]

Van Emden Henson, Mark A. Limber, Stephen F. McCormick, and Bruce T. Robinson. Multilevel image reconstruction with natural pixels. *SIAM Journal on Scientific Computing*, 17(1):193–216, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Hofer:2019:PRP

Christoph Hofer, Ulrich Langer, Martin Neumüller, and Rainer Schneckleitner. Parallel and robust preconditioning for space-time isogeometric analysis of parabolic

- evolution problems. *SIAM Journal on Scientific Computing*, 41(3):A1793–A1821, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HLR18]
- [HLP08] Jiří Horák, Gabriel J. Lord, and Mark A. Peletier. Numerical variational methods applied to cylinder buckling. *SIAM Journal on Scientific Computing*, 30(3):1362–1386, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HLS93]
- [HLP21] Thorsten Hohage, Christoph Lehrenfeld, and Janosch Preuß. Learned infinite elements. *SIAM Journal on Scientific Computing*, 43(5):A3552–A3579, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HLS98]
- [HLP23] Fabian Heimann, Christoph Lehrenfeld, and Janosch Preuß. Geometrically higher order unfitted space-time methods for PDEs on moving domains. *SIAM Journal on Scientific Computing*, 45(2):B139–B165, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1476034>. [HLT16]
- Himpe:2018:HAP**
Christian Himpe, Tobias Leibner, and Stephan Rave. Hierarchical approximate proper orthogonal decomposition. *SIAM Journal on Scientific Computing*, 40(5):A3267–A3292, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hou:1993:CED**
T. Y. Hou, J. Lowengrub, and M. J. Shelley. The convergence of an exact desingularization for vortex methods. *SIAM Journal on Scientific Computing*, 14(1):1–18, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hochbruck:1998:EIL**
Marlis Hochbruck, Christian Lubich, and Hubert Selhofer. Exponential integrators for large systems of differential equations. *SIAM Journal on Scientific Computing*, 19(5):1552–1574, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29533>.
- Hofer:2016:DGI**
Christoph Hofer, Ulrich Langer, and Ioannis Touloupoulos. Discontinuous Galerkin isogeometric analysis of ellip-

- tic diffusion problems on segmentations with gaps. *SIAM Journal on Scientific Computing*, 38(6):A3430–A3460, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HLTT97] **Huss-Lederman:1997:PER** Steven Huss-Lederman, Anna Tsao, and Thomas Turnbull. A parallelizable eigensolver for real diagonalizable matrices with real eigenvalues. *SIAM Journal on Scientific Computing*, 18(3):869–885, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/22883>.
- [HLW00] **Helzel:2000:MFS** Christiane Helzel, Randall J. Leveque, and Gerald Warnecke. A modified fractional step method for the accurate approximation of detonation waves. *SIAM Journal on Scientific Computing*, 22(4):1489–1510, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35781>.
- [HLW13] **Huang:2013:GMS** Yin-Liang Huang, Jian-Guo Liu, and Wei-Cheng Wang. A generalized MAC scheme on curvilinear domains. *SIAM Journal on Scientific Computing*, 35(5):B953–B986, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HLX23] **Huang:2023:LOM** Ru Huang, Ruipeng Li, and Yuanzhe Xi. Learning optimal multigrid smoothers via neural networks. *SIAM Journal on Scientific Computing*, 45(3):S199–S225, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430030>.
- [HLY13] **Huang:2013:MBW** Yunqing Huang, Jichun Li, and Wei Yang. Modeling backward wave propagation in metamaterials by the finite element time-domain method. *SIAM Journal on Scientific Computing*, 35(1):B248–B274, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HLZ13] **Huang:2013:TSA** Yu-Mei Huang, De-Yong Lu, and Tiejong Zeng. Two-step approach for the restoration of images corrupted by multiplicative noise. *SIAM Journal on Scientific Computing*, 35(6):A2856–A2873, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HLZ19] **Hu:2019:AMM**
 Xiaozhe Hu, Junyuan Lin, and Ludmil T. Zikatanov. An adaptive multigrid method based on path cover. *SIAM Journal on Scientific Computing*, 41(5):S220–S241, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HM98] **Haroldsen:1998:NCT**
 David J. Haroldsen and Daniel I. Meiron. Numerical calculation of three-dimensional interfacial potential flows using the point vortex method. *SIAM Journal on Scientific Computing*, 20(2):648–683, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30206>. [HM10b]
- [HM05] **Haber:2005:MMI**
 Eldad Haber and Jan Modersitzki. A multilevel method for image registration. *SIAM Journal on Scientific Computing*, 27(5):1594–1607, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60810.html. [HM14]
- [HM10a] **Hannemann:2010:CDC**
 Ralf Hannemann and Wolfgang Marquardt. Continuous and discrete composite adjoints for the Hessian of the Lagrangian in shooting algorithms for dynamic optimization. *SIAM Journal on Scientific Computing*, 31(6):4675–4695, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HM18]
- Hauck:2010:PC**
 Cory Hauck and Ryan McClarren. Positive P_N closures. *SIAM Journal on Scientific Computing*, 32(5):2603–2626, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HM18]
- Henning:2014:LOD**
 Patrick Henning and Axel Målqvist. Localized orthogonal decomposition techniques for boundary value problems. *SIAM Journal on Scientific Computing*, 36(4):A1609–A1634, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HM18]
- Hyvonen:2018:TTU**
 Nuutti Hyvönen and Lauri Mustonen. Thermal tomography with unknown boundary. *SIAM Journal on Scientific Computing*, 40(3):B663–B683, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HM19a] **Higham:2019:NAP**
 Nicholas J. Higham and Theo Mary. A new approach to probabilistic rounding error analysis. *SIAM Journal on Scientific Computing*, 41(5): A2815–A2835, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HM19b] **Higham:2019:NPE**
 Nicholas J. Higham and Theo Mary. A new preconditioner that exploits low-rank approximations to factorization error. *SIAM Journal on Scientific Computing*, 41(1): A59–A82, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HM20a] **Higham:2020:SPB**
 Nicholas J. Higham and Theo Mary. Sharper probabilistic backward error analysis for basic linear algebra kernels with random data. *SIAM Journal on Scientific Computing*, 42(5):A3427–A3446, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HM20b] **Hokanson:2020:OMR**
 Jeffrey M. Hokanson and Caleb C. Magruder. \mathcal{H}_ϵ -optimal model reduction using projected nonlinear least squares. *SIAM Journal on Scientific Computing*, 42(6): A4017–A4045, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HM20c] **Hu:2020:AEP**
 Jun Hu and Limin Ma. Asymptotically exact a posteriori error estimates of eigenvalues by the Crouzeix–Raviart element and enriched Crouzeix–Raviart element. *SIAM Journal on Scientific Computing*, 42(2): A797–A821, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HMAS17] **Han:2017:ASS**
 Insu Han, Dmitry Malioutov, Haim Avron, and Jinwoo Shin. Approximating spectral sums of large-scale matrices using stochastic Chebyshev approximations. *SIAM Journal on Scientific Computing*, 39(4):A1558–A1585, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HMCK04] **Huttunen:2004:UWV**
 T. Huttunen, P. Monk, F. Collino, and J. P. Kaipio. The ultra-weak variational formulation for elastic wave problems. *SIAM Journal on Scientific Computing*, 25(5): 1717–1742, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- [/epubs.siam.org/sam-bin/dbq/article/42223](https://epubs.siam.org/sam-bin/dbq/article/42223).
Hauser:2004:COC [HMLS22]
 [HML⁺04] Th. Hauser, T. I. Mattox, R. P. LeBeau, H. G. Dietz, and P. G. Huang. Code optimizations for complex microprocessors applied to CFD software. *SIAM Journal on Scientific Computing*, 25(4):1461–1477, July 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41053>.
- Homolya:2018:TSP** [HMLH18]
 Miklós Homolya, Lawrence Mitchell, Fabio Luporini, and David A. Ham. TSFC: a structure-preserving form compiler. *SIAM Journal on Scientific Computing*, 40(3):C401–C428, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hulsemann:2021:MMH** [HMM⁺21]
 Daniele A. Di Pietro and Frank Hülsemann, Pierre Matalon, Paul Mycek, Ulrich Rüde, and Daniel Ruiz. An H -multigrid method for hybrid high-order discretizations. *SIAM Journal on Scientific Computing*, 43(5):S839–S861, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hund:2022:OBP** [HMMS22]
 Manuela Hund, Tim Mitchell, Petar Mlinarić, and Jens Saak. Optimization-based parametric model order reduction via $\mathcal{H}_\epsilon \otimes \mathcal{L}_\epsilon$ first-order necessary conditions. *SIAM Journal on Scientific Computing*, 44(3):A1554–A1578, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140290X>.
- Have:2013:ADD** [HMN⁺13]
 Pascal Havé, Roland Masson, Frédéric Nataf, Mikolaj Szydlarski, Hua Xiang, and Tao Zhao. Algebraic domain decomposition methods for highly heterogeneous problems. *SIAM Journal on Scientific Computing*, 35(3):C284–C302, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Higueras:2009:DIP** [HMR09]
 Inmaculada Higueras, José Miguel Mantas, and Teo Roldán. Design and implementation of predictors for additive semi-implicit Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 31(3):2131–2150, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HMRR19] **Halpern:2019:NPM**
 Laurence Halpern, Ludovic Métivier, Jeffrey Rauch, and Juliette Ryan. Nobody’s perfect; matched layers for heterogeneous media. *SIAM Journal on Scientific Computing*, 41(1):A1–A25, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HMST11] **Halko:2011:APC**
 Nathan Halko, Per-Gunnar Martinsson, Yoel Shkolnisky, and Mark Tygert. An algorithm for the principal component analysis of large data sets. *SIAM Journal on Scientific Computing*, 33(5):2580–2594, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2580_s1.
- [HMvdG18] **Huang:2018:SAT**
 Jianyu Huang, Devin A. Matthews, and Robert A. van de Geijn. Strassen’s algorithm for tensor contraction. *SIAM Journal on Scientific Computing*, 40(3):C305–C326, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HMW07] **Hueber:2007:EAP**
 S. Hueber, A. Matei, and B. I. Wohlmuth. Efficient algorithms for problems with friction. *SIAM Journal on Scientific Computing*, 29(1):70–92, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HN06] **Heinkenschloss:2006:NND**
 Matthias Heinkenschloss and Hoang Nguyen. Neumann–Neumann domain decomposition preconditioners for linear-quadratic elliptic optimal control problems. *SIAM Journal on Scientific Computing*, 28(3):1001–1028, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61277.html.
- [HN19] **Haddock:2019:RPM**
 Jamie Haddock and Deanna Needell. Randomized projection methods for linear systems with arbitrarily large sparse corruptions. *SIAM Journal on Scientific Computing*, 41(5):S19–S36, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HN20] **Harris:2020:OSM**
 Isaac Harris and Dinh-Liem Nguyen. Orthogonality sampling method for the electromagnetic inverse scattering problem. *SIAM Journal on Scientific Computing*, 42(3):B722–B737, 2020. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Hashemi:2022:LSS

[HN22]

Behnam Hashemi and Yuji Nakatsukasa. Least-squares spectral methods for ODE eigenvalue problems. *SIAM Journal on Scientific Computing*, 44(5):A3244–A3264, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1445934>.

[HO93]

Hefny:2017:RVC

[HNR17]

Ahmed Hefny, Deanna Needell, and Aaditya Ramdas. Rows versus columns: Randomized Kaczmarz or Gauss–Seidel for ridge regression. *SIAM Journal on Scientific Computing*, 39(5):S528–S542, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[HO94]

Hechme:2008:EMC

[HNS08]

Grace Hechme, Yuri M. Nechepurenko, and Miloud Sadkane. Efficient methods for computing spectral projectors for linearized hydrodynamic equations. *SIAM Journal on Scientific Computing*, 31(1):667–686, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haubner:2023:NDB

[HNU23]

Johannes Haubner, Franziska

Neumann, and Michael Ulbrich. A novel density based approach for topology optimization of Stokes flow. *SIAM Journal on Scientific Computing*, 45(2):A338–A368, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M143114X>.

Hansen:1993:UCR

Per Christian Hansen and Dianne Prost O’Leary. The use of the L -curve in the regularization of discrete ill-posed problems. *SIAM Journal on Scientific Computing*, 14(6):1487–1503, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Holmgren:1994:SPF

Sverker Holmgren and Kurt Otto. Semicirculant preconditioners for first-order partial differential equations. *SIAM Journal on Scientific Computing*, 15(2):385–407, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Hemmingsson:1996:AST

Lina Hemmingsson and Kurt Otto. Analysis of semi-Toeplitz preconditioners for

[HO96a]

- first-order PDEs. *SIAM Journal on Scientific Computing*, 17(1):47–64, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994). [Hoc01]
- [HO96b] **Holmgren:1996:SSB**
Sverker Holmgren and Kurt Otto. Semicirculant solvers and boundary corrections for first-order partial differential equations. *SIAM Journal on Scientific Computing*, 17(3):613–630, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24999>.
- [HO15] **Hatipoglu:2015:PTM**
Bilal Hatipoglu and Can OzTURAN. Parallel triangular mesh refinement by longest edge bisection. *SIAM Journal on Scientific Computing*, 37(5):C574–C588, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Hof05]
- [HO18] **Hale:2018:FSC**
Nicholas Hale and Sheehan Olver. A fast and spectrally convergent algorithm for rational-order fractional integral and differential equations. *SIAM Journal on Scientific Computing*, 40(4):A2456–A2491, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hochstenbach:2001:JDT**
Michiel E. Hochstenbach. A Jacobi–Davidson type SVD method. *SIAM Journal on Scientific Computing*, 23(2):606–628, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37297>.
- Hoffman:2004:DBP**
Johan Hoffman. On duality-based *A Posteriori* error estimation in various norms and linear functionals for large eddy simulation. *SIAM Journal on Scientific Computing*, 26(1):178–195, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41719>.
- Hoffman:2005:CMD**
Johan Hoffman. Computation of mean drag for bluff body problems using adaptive DNS/LES. *SIAM Journal on Scientific Computing*, 27(1):184–207, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/61446>.

- [Hog13] **Hogg:2013:FDT** J. D. Hogg. A fast dense triangular solve in CUDA. *SIAM Journal on Scientific Computing*, 35(3):C303–C322, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hok17] **Hokanson:2017:PNL** Jeffrey M. Hokanson. Projected nonlinear least squares for exponential fitting. *SIAM Journal on Scientific Computing*, 39(6):A3107–A3128, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hok20] **Hokanson:2020:DDM** Jeffrey M. Hokanson. A data-driven McMillan degree lower bound. *SIAM Journal on Scientific Computing*, 42(5):A3447–A3461, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hol99] **Holmstrom:1999:SHP** Mats Holmström. Solving hyperbolic PDEs using interpolating wavelets. *SIAM Journal on Scientific Computing*, 21(2):405–420, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31627>.
- [Hor10] **Horenko:2010:FEA** Illia Horenko. Finite element approach to clustering of multidimensional time series. *SIAM Journal on Scientific Computing*, 32(1):62–83, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hös94] **Hoskuldsson:1994:DAM** Agnar Höskuldsson. Data analysis, matrix decompositions, and generalized inverse. *SIAM Journal on Scientific Computing*, 15(2):239–262, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HÖU+19] **Herrmann:2019:MAA** Julien Herrmann, M. Yusuf Özkaya, Bora Uçar, Kamer Kaya, and Ümit V. Çatalyürek. Multilevel algorithms for acyclic partitioning of directed acyclic graphs. *SIAM Journal on Scientific Computing*, 41(4):A2117–A2145, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HOW17] **Ho:2017:AUA** Nguyenho Ho, Sarah D. Olson, and Homer F. Walker. Accelerating the Uzawa algorithm. *SIAM Journal on Scientific Computing*, 39(5):S461–S476, 2017. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [HOY03] Bin Han, Michael L. Overton, and Thomas P.-Y. Yu. Design of Hermite subdivision schemes aided by spectral radius optimization. *SIAM Journal on Scientific Computing*, 25(2):643–656, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40860>.
- [HP94] Nicholas J. Higham and Alex Pothen. Stability of the partitioned inverse method for parallel solution of sparse triangular systems. *SIAM Journal on Scientific Computing*, 15(1):139–148, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HP14] Emmanuel Hanert and Cécile Piret. A Chebyshev PseudoSpectral method to solve the space–time tempered fractional diffusion equation. *SIAM Journal on Scientific Computing*, 36(4): A1797–A1812, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HP19] **Han:2003:DHS**
- [HP20] **Higham:1994:SPI**
- [HP21] **Hanert:2014:CPM**
- [HP19] Nicholas J. Higham and Srikara Pranesh. Simulating low precision floating-point arithmetic. *SIAM Journal on Scientific Computing*, 41(5): C585–C602, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HP20] **Henning:2020:CHT**
- [HP21] Patrick Henning and Anna Persson. Computational homogenization of time-harmonic Maxwell’s equations. *SIAM Journal on Scientific Computing*, 42(3): B581–B607, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HP21] **Higham:2021:ELP**
- [HP21] Nicholas J. Higham and Srikara Pranesh. Exploiting lower precision arithmetic in solving symmetric positive definite linear systems and least squares problems. *SIAM Journal on Scientific Computing*, 43(1): A258–A277, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HPR22] **Heinlein:2022:FPL**
- [HPR22] Alexander Heinlein, Mauro Perego, and Sivasankaran Rajamanickam. FROSch preconditioners for land ice simulations of Greenland and

- Antarctica. *SIAM Journal on Scientific Computing*, 44(2):B339–B367, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1395260>. **Herty:2006:DVM** [HPZ19]
- [HPS06] Michael Herty, Lorenzo Pareschi, and Mohammed Seaid. Discrete-velocity models and relaxation schemes for traffic flows. *SIAM Journal on Scientific Computing*, 28(4):1582–1596, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Heubeck:2008:NFE** [HQS⁺16]
- [HPS08] Britta Heubeck, Christoph Pflaum, and Gunther Steinle. New finite elements for large-scale simulation of optical waves. *SIAM Journal on Scientific Computing*, 31(2):1063–1081, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Huynh:2022:PNK** [HPS22]
- [HPS22] Ngoc Mai Monica Huynh, Luca F. Pavarino, and Simone Scacchi. Parallel Newton–Krylov BDDC and FETI–DP deluxe solvers for implicit time discretizations of the cardiac bidomain equations. *SIAM Journal on Scientific Computing*, 44(2):B224–B249, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1353848>. **Higham:2019:SMH**
- Nicholas J. Higham, Srikara Pranesh, and Mawussi Zounon. Squeezing a matrix into half precision, with an application to solving linear systems. *SIAM Journal on Scientific Computing*, 41(4):A2536–A2551, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Hou:2016:DPS**
- Jiangyong Hou, Meilan Qiu, Xiaoming He, Chaohua Guo, Mingzhen Wei, and Baojun Bai. A dual-porosity-Stokes model and finite element method for coupling dual-porosity flow and free flow. *SIAM Journal on Scientific Computing*, 38(5):B710–B739, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Hakula:2019:CFM**
- Harri Hakula, Tri Quach, and Antti Rasila. The conjugate function method and conformal mappings in multiply connected domains. *SIAM Journal on Scientific Computing*, 41(3):A1753–A1776,

???? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hanke:1996:GHC

[HR96]

Martin Hanke and Toomas Raus. A general heuristic for choosing the regularization parameter in ill-posed problems. *SIAM Journal on Scientific Computing*, 17(4): 956–972, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hendrickson:1998:IRT

[HR98a]

Bruce Hendrickson and Edward Rothberg. Improving the run time and quality of nested dissection ordering. *SIAM Journal on Scientific Computing*, 20(2): 468–489, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30065>.

Hrycak:1998:IFM

[HR98b]

Tomasz Hrycak and Vladimir Rokhlin. An improved fast multipole algorithm for potential fields. *SIAM Journal on Scientific Computing*, 19(6):1804–1826, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30989>.

[HR99a]

Hebeker:1999:AFE

Friedrich K. Hebeker and Rolf Rannacher. An adaptive finite element method for unsteady convection-dominated flows with stiff source terms. *SIAM Journal on Scientific Computing*, 21(3):799–818, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31903>.

Hou:1999:NAO

[HR99b]

L. S. Hou and S. S. Ravindran. Numerical approximation of optimal flow control problems by a penalty method: Error estimates and numerical results. *SIAM Journal on Scientific Computing*, 20(5): 1753–1777, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32515>.

Huang:1999:MMS

[HR99c]

Weizhang Huang and Robert D. Russell. Moving mesh strategy based on a gradient flow equation for two-dimensional problems. *SIAM Journal on Scientific Computing*, 20(3):998–1015, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32515>.

/epubs.siam.org/sam-bin/dbq/article/31524.

Haase:2005:CIA

[HR05]

Gundolf Haase and Stefan Reitzinger. Cache issues of algebraic multigrid methods for linear systems with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 27(1):1–18, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40511>.

Haynes:2007:SWM

[HR07]

Ronald D. Haynes and Robert D. Russell. A Schwarz waveform moving mesh method. *SIAM Journal on Scientific Computing*, 29(2):656–673, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Higham:2014:ECN

[HR14]

Nicholas J. Higham and Samuel D. Relton. Estimating the condition number of the Fréchet derivative of a matrix function. *SIAM Journal on Scientific Computing*, 36(6):C617–C634, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Higham:2016:ELE

[HR16]

Nicholas J. Higham and Samuel D. Relton. Estimat-

ing the largest elements of a matrix. *SIAM Journal on Scientific Computing*, 38(5):C584–C601, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

He:2021:LFA

[HRD21]

Yunhui He, Sander Rhebergen, and Hans De Sterck. Local Fourier analysis of multigrid for hybridized and embedded discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 43(5):S612–S636, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hristopulos:2003:SGR

[Hri03]

Dionissios T. Hristopulos. Spartan Gibbs random field models for geostatistical applications. *SIAM Journal on Scientific Computing*, 24(6):2125–2162, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40265>. See erratum [Hri05].

Hristopulos:2005:ESG

[Hri05]

Dionissios T. Hristopulos. Erratum: Spartan Gibbs random field models for geostatistical applications. *SIAM Journal on Scientific Computing*, 26(6):2176, November 2005. CODEN

SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/62461>. See [Hri03].

He:2020:OLL

[HRP20]

Xinyu He, Kristofer G. Reyes, and Warren B. Powell. Optimal learning with local nonlinear parametric models over continuous designs. *SIAM Journal on Scientific Computing*, 42(4):A2134–A2157, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heinlein:2023:PST

[HRR23]

Alexander Heinlein, Oliver Rheinbach, and Friederike Röver. Parallel scalability of three-level FROSch preconditioners to 220000 cores using the Theta supercomputer. *SIAM Journal on Scientific Computing*, 45(3):S173–S198, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1431205>.

Hogg:2010:DMS

[HRS10]

J. D. Hogg, J. K. Reid, and J. A. Scott. Design of a multicore sparse Cholesky factorization using DAGs. *SIAM Journal on Scientific Computing*, 32(6):3627–3649, ??? 2010. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v32/i6/p3627_s1

Holtz:2012:ALS

[HRS12]

Sebastian Holtz, Thorsten Rohwedder, and Reinhold Schneider. The alternating linear scheme for tensor optimization in the tensor train format. *SIAM Journal on Scientific Computing*, 34(2):A683–A713, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hoskins:2019:NSE

[HRS19]

Jeremy G. Hoskins, Vladimir Rokhlin, and Kirill Serkh. On the numerical solution of elliptic partial differential equations on polygonal domains. *SIAM Journal on Scientific Computing*, 41(4):A2552–A2578, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heikkola:2003:PFD

[HRT03]

Erkki Heikkola, Tuomo Rossi, and Jari Toivanen. A parallel fictitious domain method for the three-dimensional Helmholtz equation. *SIAM Journal on Scientific Computing*, 24(5):1567–1588, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/doi/10.1137/S0893752403425000>

- [//epubs.siam.org/sam-bin/dbq/article/37030](https://epubs.siam.org/sam-bin/dbq/article/37030)
- [HRT10] Eldad Haber, Tauseef Rehman, and Allen Tannenbaum. An efficient numerical method for the solution of the L_2 optimal mass transfer problem. *SIAM Journal on Scientific Computing*, 32(1):197–211, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HRT13] Christiane Helzel, James A. Rossmanith, and Bertram Taetz. A high-order unstaggered constrained-transport method for the three-dimensional ideal magnetohydrodynamic equations based on the method of lines. *SIAM Journal on Scientific Computing*, 35(2):A623–A651, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HRV11] Harri Hakula, Antti Rasila, and Matti Vuorinen. On moduli of rings and quadrilaterals: Algorithms and experiments. *SIAM Journal on Scientific Computing*, 33(1):279–302, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p279_s1.
- [HRvdZ22] **Haber:2010:ENM**
- [Houston:2022:LTT] Paul Houston, Connor J. Rourke, and Kristoffer G. van der Zee. Linearization of the travel time functional in porous media flows. *SIAM Journal on Scientific Computing*, 44(3):B531–B557, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1451105>.
- [Huang:1994:SAG] Wei Zhang Huang and David M. Sloan. A simple adaptive grid method in two dimensions. *SIAM Journal on Scientific Computing*, 15(4):776–797, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hairer:1997:RLT] Ernst Hairer and Daniel Stoffer. Reversible long-term integration with variable stepsizes. *SIAM Journal on Scientific Computing*, 18(1):257–269, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28549>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Hardwick:1999:UPI

[HS99a]

Janis P. Hardwick and Quentin F. Stout. Using path induction to evaluate sequential allocation procedures. *SIAM Journal on Scientific Computing*, 21(1):67–87, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29182>.

Heuer:1999:ISH

[HS99b]

Norbert Heuer and Ernst P. Stephan. Iterative substructuring for hypersingular integral equations in \mathbf{R}^3 . *SIAM Journal on Scientific Computing*, 20(2):739–749, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31179>.

Hu:1999:DPG

[HS99c]

Changqing Hu and Chi-Wang Shu. A discontinuous Galerkin finite element method for Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 21(2):666–690, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33728>.

Houston:2001:HAD

[HS01a]

Paul Houston and Endre Süli. *hp*-adaptive discontinuous Galerkin finite element methods for first-order hyperbolic problems. *SIAM Journal on Scientific Computing*, 23(4):1226–1252, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37879>.

Hu:2001:MAW

[HS01b]

Y. F. Hu and J. A. Scott. A multilevel algorithm for wavefront reduction. *SIAM Journal on Scientific Computing*, 23(4):1352–1375, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37773>.

Hairer:2005:ETR

[HS05a]

Ernst Hairer and Gustaf Söderlind. Explicit, time reversible, adaptive step size control. *SIAM Journal on Scientific Computing*, 26(6):1838–1851, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60699>.

Harbrecht:2005:WGS

[HS05b]

Helmut Harbrecht and Reinhold Schneider. Wavelet

- Galerkin schemes for boundary integral equations—implementation and quadrature. *SIAM Journal on Scientific Computing*, 27(4):1347–1370, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_42938.html. [HS06d]
- [HS06a] **Hagemann:2006:WMP**
Michael Hagemann and Olaf Schenk. Weighted matchings for preconditioning symmetric indefinite linear systems. *SIAM Journal on Scientific Computing*, 28(2):403–420, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61561.html. [HS16]
- [HS06b] **Hazra:2006:SPT**
S. B. Hazra and V. Schulz. Simultaneous pseudo-timestepping for aerodynamic shape optimization problems with state constraints. *SIAM Journal on Scientific Computing*, 28(3):1078–1099, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HS17]
- [HS06c] **Henon:2006:PMI**
Pascal Hénon and Yousef Saad. A parallel multi-stage ILU factorization based on a hierarchical graph decomposition. *SIAM Journal on Scientific Computing*, 28(6):2266–2293, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hintermuller:2006:IPD**
M. Hintermüller and G. Stadler. An infeasible primal-dual algorithm for total bounded Variation–Based inf-convolution-type image restoration. *SIAM Journal on Scientific Computing*, 28(1):1–23, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61326.html.
- Hansen:2016:PCC**
M. A. Hansen and J. C. Sutherland. Pseudotransient continuation for combustion simulation with detailed reaction mechanisms. *SIAM Journal on Scientific Computing*, 38(2):B272–B296, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Herzog:2017:MIM**
Roland Herzog and Kirk M. Soodhalter. A modified implementation of MINRES to monitor residual subvector norms for block systems. *SIAM Journal on Scientific Computing*, 39(6):A2645–A2663, 2017. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic).
Houston:2018:ASC
- [HS18] Paul Houston and Nathan Sime. Automatic symbolic computation for discontinuous Galerkin finite element methods. *SIAM Journal on Scientific Computing*, 40(3): C327–C357, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Huang:2021:BPP**
- [HS21] Fukeng Huang and Jie Shen. Bound/Positivity preserving and energy stable scalar auxiliary variable schemes for dissipative systems: Applications to Keller–Segel and Poisson–Nernst–Planck equations. *SIAM Journal on Scientific Computing*, 43(3): A1832–A1857, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hatz:2012:EPO**
- [HSB12] Kathrin Hatz, Johannes P. Schlöder, and Hans Georg Bock. Estimating parameters in optimal control problems. *SIAM Journal on Scientific Computing*, 34(3): A1707–A1728, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hanek:2020:MBI**
- [HSB20] Martin Hanek, Jakub Sístek, and Pavel Burda. Multi-level BDDC for incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 42(6):C359–C383, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Huckle:2004:PSH**
- [HSCTP04] Thomas Huckle, Stefano Serra-Capizzano, and Cristina Tablino-Possio. Preconditioning strategies for Hermitian indefinite Toeplitz linear systems. *SIAM Journal on Scientific Computing*, 25(5): 1633–1654, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41633>.
- Heroux:2007:PSS**
- [HSF07] Michael A. Heroux, Andrew G. Salinger, and Laura J. D. Frink. Parallel segregated Schur complement methods for fluid density functional theories. *SIAM Journal on Scientific Computing*, 29(5):2059–2077, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hahne:2023:ATM**
- [HSF23] Jens Hahne, Ben S. Southworth, and Stephanie Fried-

hoff. Asynchronous truncated multigrid-reduction-in-time. *SIAM Journal on Scientific Computing*, 45(3):S281–S306, ????. 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1433149>.

Halder:2019:AMS

[HSK19]

Yous V. Halder, Benjamin Sanderse, and Barry Koren. An adaptive minimum spanning tree multielement method for uncertainty quantification of smooth and discontinuous responses. *SIAM Journal on Scientific Computing*, 41(6):A3624–A3648, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Haut:2020:DSA

[HSMT20]

Terry S. Haut, Ben S. Southworth, Peter G. Maginot, and Vladimir Z. Tomov. Diffusion synthetic acceleration preconditioning for discontinuous Galerkin discretizations of S_N transport on high-order curved meshes. *SIAM Journal on Scientific Computing*, 42(5):B1271–B1301, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hessenthaler:2020:MCA

[HSN⁺20]

Andreas Hessenthaler, Ben S. Southworth, David Nordsletten, Oliver Röhrle, Robert D.

Falgout, and Jacob B. Schroder. Multilevel convergence analysis of multigrid-reduction-in-time. *SIAM Journal on Scientific Computing*, 42(2):A771–A796, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heinkenschloss:2008:BTM

[HSS08]

Matthias Heinkenschloss, Danny C. Sorensen, and Kai Sun. Balanced truncation model reduction for a class of descriptor systems with application to the Oseen equations. *SIAM Journal on Scientific Computing*, 30(2):1038–1063, ????. 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shih:2023:RMT

[hSSW23]

Yu hsuan Shih, Georg Stadler, and Florian Wechsung. Robust multigrid techniques for augmented Lagrangian preconditioning of incompressible Stokes equations with extreme viscosity variations. *SIAM Journal on Scientific Computing*, 45(3):S27–S53, ????. 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430698>.

Huber:2009:SDP

[HSSZ09]

M. Huber, J. Schöberl,

- A. Sinwel, and S. Zaglmayr. Simulation of diffraction in periodic media with a coupled finite element and plane wave approach. *SIAM Journal on Scientific Computing*, 31(2):1500–1517, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HSWW08]
- [HSTH18] James Hook, Jennifer Scott, Françoise Tisseur, and Jonathan Hogg. A max-plus approach to incomplete Cholesky factorization preconditioners. *SIAM Journal on Scientific Computing*, 40(4):A1987–A2004, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Hook:2018:MPA]
- [HSU21] J. Haubner, M. Siebenborn, and M. Ulbrich. A continuous perspective on shape optimization via domain transformations. *SIAM Journal on Scientific Computing*, 43(3):A1997–A2018, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Haubner:2021:CPS]
- [HSW08] S. Hueber, G. Stadler, and B. I. Wohlmuth. A primal-dual active set algorithm for three-dimensional contact problems with Coulomb friction. *SIAM Journal on Scientific Computing*, 30(2):572–596, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Hueber:2008:PDA]
- P. Hauret, J. Salomon, A. A. Weiss, and B. I. Wohlmuth. Energy-consistent rotational schemes for frictional contact problems. *SIAM Journal on Scientific Computing*, 30(5):2488–2511, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Hauret:2008:ECC]
- [HSY20] Fukeng Huang, Jie Shen, and Zhiguo Yang. A highly efficient and accurate new scalar auxiliary variable approach for gradient flows. *SIAM Journal on Scientific Computing*, 42(4):A2514–A2536, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Huang:2020:HEA]
- [HSZ12] J. S. Hesthaven, B. Stamm, and S. Zhang. Certified reduced basis method for the electric field integral equation. *SIAM Journal on Scientific Computing*, 34(3):A1777–A1799, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Hesthaven:2012:CRB]

- [HT00] **Hesthaven:2000:SSM**
 J. S. Hesthaven and C. H. Teng. Stable spectral methods on tetrahedral elements. *SIAM Journal on Scientific Computing*, 21(6):2352–2380, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34372>.
- [HT09] **Hale:2009:CMM**
 Nicholas Hale and T. Wynn Tee. Conformal maps to multiply slit domains and applications. *SIAM Journal on Scientific Computing*, 31(4):3195–3215, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HT13a] **Hale:2013:FAC**
 Nicholas Hale and Alex Townsend. Fast and accurate computation of Gauss–Legendre and Gauss–Jacobi quadrature nodes and weights. *SIAM Journal on Scientific Computing*, 35(2):A652–A674, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HT13b] **Harbrecht:2013:NSS**
 Helmut Harbrecht and Johannes Tausch. On the numerical solution of a shape optimization problem for the heat equation. *SIAM Journal on Scientific Computing*, 35(1):A104–A121, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HT14a] **Hale:2014:ACL**
 Nicholas Hale and Alex Townsend. An algorithm for the convolution of Legendre series. *SIAM Journal on Scientific Computing*, 36(3):A1207–A1220, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HT14b] **Hale:2014:FSS**
 Nicholas Hale and Alex Townsend. A fast, simple, and stable Chebyshev–Legendre transform using an asymptotic formula. *SIAM Journal on Scientific Computing*, 36(1):A148–A167, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HT16] **Herrmann:2016:FPT**
 S. Herrmann and E. Tanré. The first-passage time of the Brownian motion to a curved boundary: an algorithmic approach. *SIAM Journal on Scientific Computing*, 38(1):A196–A215, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HT17] **Hashemi:2017:CTD** Behnam Hashemi and Lloyd N. Trefethen. Chebfun in three dimensions. *SIAM Journal on Scientific Computing*, 39(5):C341–C363, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HTB⁺05] **Hu:2005:TIA** Jonathan J. Hu, Raymond S. Tuminaro, Pavel B. Bochev, Christopher J. Garasi, and Allen C. Robinson. Toward an h -independent algebraic multigrid method for Maxwell's equations. *SIAM Journal on Scientific Computing*, 27(5):1669–1688, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60811.html.
- [HTH⁺16] **Huttunen:2016:ESS** J. M. J. Huttunen, M. J. Turunen, J. T. J. Honkanen, J. Töyräs, and J. S. Juvelin. Estimation of systematic and spatially correlated components of random signals from repeated measurements: Application to contrast enhanced computer tomography measurements. *SIAM Journal on Scientific Computing*, 38(1):B77–B99, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HTMM15] **Hannemann-Tamas:2015:ASA** Ralf Hannemann-Tamás, Diego A. Muñoz, and Wolfgang Marquardt. Adjoint sensitivity analysis for nonsmooth differential-algebraic equation systems. *SIAM Journal on Scientific Computing*, 37(5):A2380–A2402, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HTW⁺12] **Hiriyur:2012:QAM** B. Hiriyur, R. S. Tuminaro, H. Waisman, E. G. Boman, and D. E. Keyes. A quasi-algebraic multigrid approach to fracture problems based on extended finite elements. *SIAM Journal on Scientific Computing*, 34(2):A603–A626, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Hua05] **Huang:2005:MMQ** Weizhang Huang. Measuring mesh qualities and application to variational mesh adaptation. *SIAM Journal on Scientific Computing*, 26(5):1643–1666, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42940>.

- [Huc93] **Huckle:1993:SAC**
 Thomas Huckle. Some aspects of circulant preconditioners. *SIAM Journal on Scientific Computing*, 14(3): 531–541, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HV95]
- [Huc08] **Huckle:2008:CFA**
 Thomas K. Huckle. Compact Fourier analysis for designing multigrid methods. *SIAM Journal on Scientific Computing*, 31(1):644–666, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HV96]
- [Hun95] **Hunt:1995:TDF**
 Roland Hunt. Three-dimensional flow in a general tube using a combination of finite and pseudospectral discretisations. *SIAM Journal on Scientific Computing*, 16(3):513–530, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [HV01]
- [Hun96] **Hunt:1996:TDS**
 Roland Hunt. Three-dimensional steady flow in a dividing channel using finite and pseudospectral differences. *SIAM Journal on Scientific Computing*, 17(3): 561–578, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27195>.
- Horton:1995:STM**
 G. Horton and S. Vandewalle. A space–time multigrid method for parabolic partial differential equations. *SIAM Journal on Scientific Computing*, 16(4):848–864, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Hofhaus:1996:ADL**
 Jörn Hofhaus and Eric F. Van de Velde. Alternating-direction line-relaxation methods on multicomputers. *SIAM Journal on Scientific Computing*, 17(2):454–478, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25387>.
- Henson:2001:EFA**
 Van Emden Henson and Panayot S. Vassilevski. Element-free AMG: General algorithms for computing interpolation weights in AMG. *SIAM Journal on Scientific Computing*, 23(2):629–650, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37299>.

- [HV04] **Huang:2004:ADD** Chengming Huang and Stefan Vandewalle. An analysis of delay-dependent stability for ordinary and partial differential equations with fixed and distributed delays. *SIAM Journal on Scientific Computing*, 25(5):1608–1632, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40971>.
- [HV07] **Huybrechs:2007:SDI** Daan Huybrechs and Stefan Vandewalle. A sparse discretization for integral equation formulations of high frequency scattering problems. *SIAM Journal on Scientific Computing*, 29(6):2305–2328, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HvBW23] **Hart:2023:EHD** Joseph Hart and Bart van Bloemen Waanders. Enabling hyper-differential sensitivity analysis for ill-posed inverse problems. *SIAM Journal on Scientific Computing*, 45(4):A1947–A1970, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M147699X>.
- [HvdG96] **Henry:1996:PAU** Greg Henry and Robert van de Geijn. Parallelizing the *QR* algorithm for the unsymmetric algebraic eigenvalue problem: Myths and reality. *SIAM Journal on Scientific Computing*, 17(4):870–883, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HvdV03] **Hochstenbach:2003:ARQ** Michiel E. Hochstenbach and Henk A. van der Vorst. Alternatives to the Rayleigh quotient for the quadratic eigenvalue problem. *SIAM Journal on Scientific Computing*, 25(2):591–603, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40640>.
- [HVK18] **He:2018:CAL** Xin He, Cornelis Vuik, and Christiaan M. Klaij. Combining the augmented Lagrangian preconditioner with the simple Schur complement approximation. *SIAM Journal on Scientific Computing*, 40(3):A1362–A1385, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HVW95] **Horton:1995:APP** G. Horton, S. Vandewalle, and P. Worley. An al-

- gorithm with polylog parallel complexity for solving parabolic partial differential equations. *SIAM Journal on Scientific Computing*, 16(3):531–541, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HW94] **Hendrickson:1994:TWM**
Bruce A. Hendrickson and David E. Womble. The torus-wrap mapping for dense matrix calculations on massively parallel computers. *SIAM Journal on Scientific Computing*, 15(5):1201–1226, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HW99] **Hermey:1999:FDE**
Damaris Hermey and G. Alistair Watson. Fitting data with errors in all variables using the Huber M -estimator. *SIAM Journal on Scientific Computing*, 20(4):1276–1298, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31823>.
- [HW01] **Henn:2001:IMR**
Stefan Henn and Kristian Witsch. Iterative multigrid regularization techniques for image matching. *SIAM Journal on Scientific Computing*, 23(4):1077–1093, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37161>.
- [HW03] **Henn:2003:MIR**
Stefan Henn and Kristian Witsch. Multimodal image registration using a variational approach. *SIAM Journal on Scientific Computing*, 25(4):1429–1447, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40142>.
- [HW09] **Huang:2009:EAS**
Jin Huang and Zhu Wang. Extrapolation algorithms for solving mixed boundary integral equations of the Helmholtz equation by mechanical quadrature methods. *SIAM Journal on Scientific Computing*, 31(6):4115–4129, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HW13] **Han:2013:MMS**
Dong Han and Justin W. L. Wan. Multigrid methods for second order Hamilton–Jacobi–Bellman and Hamilton–Jacobi–Bellman–Isaacs equations. *SIAM Journal on Scientific Computing*, 35(5):S323–S344, ??? 2013. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Haut:2014:APT

- [HW14a] Terry Haut and Beth Wingate. An asymptotic parallel-in-time method for highly oscillatory PDEs. *SIAM Journal on Scientific Computing*, 36(2):A693–A713, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

He:2014:GPG

- [HW14b] Zhijian He and Xiaoqun Wang. Good path generation methods in quasi-Monte Carlo for pricing financial derivatives. *SIAM Journal on Scientific Computing*, 36(2):B171–B197, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hale:2015:CIS

- [HW15] Nicholas Hale and J. A. C. Weideman. Contour integral solution of elliptic PDEs in cylindrical domains. *SIAM Journal on Scientific Computing*, 37(6):A2630–A2655, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Heid:2021:ALM

- [HW21] Pascal Heid and Thomas P. Wihler. Adaptive local minmax Galerkin methods for variational problems. *SIAM*

Journal on Scientific Computing, 43(2):A1108–A1133, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Hwang:2007:ISD

- [Hwa07] Hyun-Cheol Hwang. An internal structure dependent Riemann solver for regularization-sensitive shock waves and its application to front tracking. *SIAM Journal on Scientific Computing*, 29(3):913–940, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Henry:2002:PIN

- [HWD02] Greg Henry, David Watkins, and Jack Dongarra. A parallel implementation of the nonsymmetric QR algorithm for distributed memory architectures. *SIAM Journal on Scientific Computing*, 24(1):284–311, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32516>.

Holland:2005:SAI

- [HWS05] Ruth M. Holland, Andy J. Wathen, and Gareth J. Shaw. Sparse approximate inverses and target matrices. *SIAM Journal on Scientific Computing*, 26(3):1000–1011, May 2005. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60113>. [HXB11]
- [HWZ19] Jialin Hong, Xu Wang, and Liying Zhang. Parareal exponential θ -scheme for long-time simulation of stochastic Schrödinger equations with weak damping. *SIAM Journal on Scientific Computing*, 41(6):B1155–B1177, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HXB13] Xiazhe Hu, Kaiyi Wu, and Ludmil T. Zikatanov. A posteriori error estimates for multilevel methods for graph Laplacians. *SIAM Journal on Scientific Computing*, 43(5):S727–S742, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HXW22] Dianming Hou and Chuanju Xu. Highly efficient and energy dissipative schemes for the time fractional Allen–Cahn equation. *SIAM Journal on Scientific Computing*, 43(5):A3305–A3327, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Huang:2011:SDG] Qiumei Huang, Hehu Xie, and Hermann Brunner. Superconvergence of discontinuous Galerkin solutions for delay differential equations of pantograph type. *SIAM Journal on Scientific Computing*, 33(5):2664–2684, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2664_s1.
- [Huang:2013:DGM] Qiumei Huang, Hehu Xie, and Hermann Brunner. The hp discontinuous Galerkin method for delay differential equations with nonlinear vanishing delay. *SIAM Journal on Scientific Computing*, 35(3):A1604–A1620, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [He:2022:UMB] Zhijian He, Zhenghang Xu, and Xiaoqun Wang. Unbiased MLMC-based variational Bayes for likelihood-free inference. *SIAM Journal on Scientific Computing*, 44(4):A1884–A1910, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1449051>.

- [HXX18] **Hong:2018:MCT**
 Qichen Hong, Hehu Xie, and Fei Xu. A multilevel correction type of adaptive finite element method for eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(6):A4208–A4235, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HY08] **Holmes:2008:FFF**
 Anthony D. Holmes and Hongtao Yang. A front-fixing finite element method for the valuation of American options. *SIAM Journal on Scientific Computing*, 30(4):2158–2180, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HY10] **Hsieh:2010:NLS**
 Po-Wen Hsieh and Suh-Yuh Yang. A novel least-squares finite element method enriched with residual-free bubbles for solving convection-dominated problems. *SIAM Journal on Scientific Computing*, 32(4):2047–2073, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HY14] **Hu:2014:PWL**
 Qiya Hu and Long Yuan. A plane-wave least-squares method for time-harmonic Maxwell’s equations in absorbing media. *SIAM Journal on Scientific Computing*, 36(4):A1937–A1959, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HYC15] **Huang:2015:FIM**
 Jizu Huang, Chao Yang, and Xiao-Chuan Cai. A fully implicit method for lattice Boltzmann equations. *SIAM Journal on Scientific Computing*, 37(5):S291–S313, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HYC16] **Huang:2016:NPI**
 Jizu Huang, Chao Yang, and Xiao-Chuan Cai. A nonlinearly preconditioned inexact Newton algorithm for steady state lattice Boltzmann equations. *SIAM Journal on Scientific Computing*, 38(3):A1701–A1724, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HYW20] **Huang:2020:PES**
 Jizu Huang, Chao Yang, and Ying Wei. Parallel energy-stable solver for a coupled Allen–Cahn and Cahn–Hilliard system. *SIAM Journal on Scientific Computing*, 42(5):C294–C312, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [HZ10] **Hicken:2010:SFV**
 Jason E. Hicken and David W. Zingg. A simplified and flexible variant of GCROT for solving nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 32(3):1672–1694, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HZ11] **Hicken:2011:SFE**
 Jason E. Hicken and David W. Zingg. Superconvergent functional estimates from summation-by-parts finite-difference discretizations. *SIAM Journal on Scientific Computing*, 33(2):893–922, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i2/p893_s1.
- [HZ16] **Hu:2016:SPS**
 Qiya Hu and Haiyang Zhang. Substructuring preconditioners for the systems arising from plane wave discretization of Helmholtz equations. *SIAM Journal on Scientific Computing*, 38(4):A2232–A2261, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HZ22] **Hu:2022:GIP**
 Xindi Hu and Shengfeng Zhu. On geometric inverse problems in time-fractional subdiffusion. *SIAM Journal on Scientific Computing*, 44(6):A3560–A3591, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M145611X>.
- [HZXC16] **He:2016:FOD**
 Yinnian He, Yan Zhang, Hui Xu, and Zhangxin Chen. First-order decoupled finite element method of the three-dimensional primitive equations of the ocean. *SIAM Journal on Scientific Computing*, 38(1):A273–A301, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [HZZ20] **Hu:2020:SCC**
 Kaibo Hu, Qian Zhang, and Zhimin Zhang. Simple curl-curl-conforming finite elements in two dimensions. *SIAM Journal on Scientific Computing*, 42(6):A3859–A3877, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [IA14] **Ionita:2014:DDP**
 A. C. Ionita and A. C. Antoulas. Data-driven parametrized model reduction in the Loewner framework. *SIAM Journal on Scientific Computing*, 36(3):A984–A1007, 2014. CO-

- [IBM01] DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Inda:2001:EPC
 Márcia A. Inda, Rob H. Bisseling, and David K. Maslen. On the efficient parallel computation of Legendre transforms. *SIAM Journal on Scientific Computing*, 23(1):271–303, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35586>. [IHTR12]
- [IBWG15] Tobin Isaac, Carsten Burstedde, Lucas C. Wilcox, and Omar Ghattas. Recursive algorithms for distributed forests of octrees. *SIAM Journal on Scientific Computing*, 37(5):C497–C531, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Isaac:2015:RAD
- [IFSJ21] Giovanni Isotton, Matteo Frigo, Nicolò Spiezia, and Carlo Janna. Chronos: a general purpose classical AMG solver for high performance computing. *SIAM Journal on Scientific Computing*, 43(5):C335–C357, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Isotton:2021:CGP
- [Ito:2011:RPN] Kazufumi Ito, Bangti Jin, and Tomoya Takeuchi. A regularization parameter for nonsmooth Tikhonov regularization. *SIAM Journal on Scientific Computing*, 33(3):1415–1438, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1415_s1.
Ito:2011:RPN
- [IHT10] Klaus Iglberger, Georg Hager, Jan Treibig, and Ulrich Rüde. Expression templates revisited: a performance analysis of current methodologies. *SIAM Journal on Scientific Computing*, 34(2):C42–C69, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Iglberger:2012:ETR
- [IJ08] Vincent Israel-Jost. FASART: a frequency-adaptive algorithm in pinhole SPECT tomography. *SIAM Journal on Scientific Computing*, 30(2):819–836, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Israel-Jost:2008:FSF
- [IK10] Junichi Imai and Reičiro Kawai. Quasi-Monte Carlo method for infinitely divisible random vectors via series
Imai:2010:QMC

representations. *SIAM Journal on Scientific Computing*, 32(4):1879–1897, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [IM97]

Ito:2016:NMF

[IL16] K. Ito and A. K. Landi. The nonnegative matrix factorization: Regularization and complexity. *SIAM Journal on Scientific Computing*, 38(2):B327–B346, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ito:2005:HOC

[ILK05] Kazufumi Ito, Zhilin Li, and Yaw Kyei. Higher-order, Cartesian grid based finite difference schemes for elliptic equations on irregular domains. *SIAM Journal on Scientific Computing*, 27(1):346–367, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60120>. [IM98]

Iske:2017:HMA

[ILW17] Armin Iske, Sabine Le Borne, and Michael Wende. Hierarchical matrix approximation for kernel-based scattered data interpolation. *SIAM Journal on Scientific Computing*, 39(5):A2287–A2316, 2017. CODEN SJOCE3. [IM99]

ISSN 1064-8275 (print), 1095-7197 (electronic).

Iavernaro:1997:CSM

F. Iavernaro and F. Mazzia. Convergence and stability of multistep methods solving nonlinear initial value problems. *SIAM Journal on Scientific Computing*, 18(1):270–285, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28712>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Iyengar:1998:SPA

Satish Iyengar and Mainak Mazumdar. A saddle point approximation for certain multivariate tail probabilities. *SIAM Journal on Scientific Computing*, 19(4):1234–1244, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27733>.

Iavernaro:1999:BBV

F. Iavernaro and F. Mazzia. Block-boundary value methods for the solution of ordinary differential equations. *SIAM Journal on Scientific Computing*, 21(1):323–339, January 1999. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32578>. [Inv02]
- [IMS96] Satoru Iwata, Kazuo Murota, and Izumi Sakuta. Primal-dual combinatorial relaxation algorithms for the maximum degree of subdeterminants. *SIAM Journal on Scientific Computing*, 17(4):993–1012, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [In99] Arun In. Numerical evaluation of an energy relaxation method for inviscid real fluids. *SIAM Journal on Scientific Computing*, 21(1):340–365, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32456>. [Ips01]
- [INS05] Takeshi Iwashita, Yuuichi Nakanishi, and Masaaki Shimasaki. Comparison criteria for parallel orderings in ILU preconditioning. *SIAM Journal on Scientific Computing*, 26(4):1234–1260, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60076>. [IR98]
- Inverarity:2002:FCM**
G. W. Inverarity. Fast computation of multidimensional Fourier integrals. *SIAM Journal on Scientific Computing*, 24(2):645–651, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38647>.
- Isaacson:2006:IDC**
Samuel A. Isaacson and Charles S. Peskin. Incorporating diffusion in complex geometries into stochastic chemical kinetics simulations. *SIAM Journal on Scientific Computing*, 28(1):47–74, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60506.html.
- Ipsen:2001:NPN**
Ilse C. F. Ipsen. A note on preconditioning nonsymmetric matrices. *SIAM Journal on Scientific Computing*, 23(3):1050–1051, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37743>.
- Ito:1998:OCT**
K. Ito and S. S. Ravindran. Optimal control of thermally convected fluid flows. *SIAM Journal on*

- Scientific Computing*, 19(6): 1847–1869, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29973>. [ISS06]
- Ibanez:2017:MAD**
- [IS17] Dan Ibanez and Mark S. Shephard. Modifiable array data structures for mesh topology. *SIAM Journal on Scientific Computing*, 39(2): C144–C161, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Isaac:2020:RPF**
- [Isa20] Tobin Isaac. Recursive, parameter-free, explicitly defined interpolation nodes for simplices. *SIAM Journal on Scientific Computing*, 42(6): A4046–A4062, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Isaac:2015:SNS**
- [ISG15] Tobin Isaac, Georg Stadler, and Omar Ghattas. Solution of nonlinear Stokes equations discretized by high-order finite elements on nonconforming and anisotropic meshes, with application to ice sheet dynamics. *SIAM Journal on Scientific Computing*, 37(6): B804–B833, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ixaru:2006:FCS**
- L. Gr. Ixaru, N.-S. Scott, and M. P. Scott. Fast computation of the Slater integrals. *SIAM Journal on Scientific Computing*, 28(4):1252–1274, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ivancic:2019:ALE**
- [ISS19] Filip Ivancić, Tony W.-H. Sheu, and Maxim Solovchuk. Arbitrary Lagrangian Eulerian-type finite element methods formulation for PDEs on time-dependent domains with vanishing discrete space conservation law. *SIAM Journal on Scientific Computing*, 41(3):A1548–A1573, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Iglesias:2018:TDS**
- [ISW18] José A. Iglesias, Kevin Sturm, and Florian Wechsung. Two-dimensional shape optimization with nearly conformal transformations. *SIAM Journal on Scientific Computing*, 40(6):A3807–A3830, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [IT09a] **Imai:2009:AQM**
Junichi Imai and Ken Seng Tan. An accelerating quasi-Monte Carlo method for option pricing under the generalized hyperbolic Lévy process. *SIAM Journal on Scientific Computing*, 31(3):2282–2302, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [IT09b] **Ito:2009:LMA**
Kazufumi Ito and Jari Toivanen. Lagrange multiplier approach with optimized finite difference stencils for pricing American options under stochastic volatility. *SIAM Journal on Scientific Computing*, 31(4):2646–2664, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [IT14] **Imai:2014:PDS**
Junichi Imai and Ken Seng Tan. Pricing derivative securities using integrated quasi-Monte Carlo methods with dimension reduction and discontinuity realignment. *SIAM Journal on Scientific Computing*, 36(5):A2101–A2121, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [iW11] **intHout:2011:CIM**
K. J. in 't Hout and J. A. C. Weideman. A contour integral method for the Black-Scholes and Heston equations. *SIAM Journal on Scientific Computing*, 33(2):763–785, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p763_s1.
- [IW14] **Iliescu:2014:SDQ**
Traian Iliescu and Zhu Wang. Are the snapshot difference quotients needed in the proper orthogonal decomposition? *SIAM Journal on Scientific Computing*, 36(3):A1221–A1250, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Jac03] **Jackiewicz:2003:DOP**
Z. Jackiewicz. Determination of optimal parameters for the Chebyshev–Gegenbauer reconstruction method. *SIAM Journal on Scientific Computing*, 25(4):1187–1198, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42359>.
- [Jah04] **Jahnke:2004:LTS**
Tobias Jahnke. Long-time-step integrators for almost-adiabatic quantum dynamics. *SIAM Journal on Scientific Computing*, 25(6):

- 2145–2164, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41131>. [Jar19]
- Jahnke:2010:AWM**
- [Jah10] Tobias Jahnke. An adaptive wavelet method for the chemical master equation. *SIAM Journal on Scientific Computing*, 31(6):4373–4394, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Jay98]
- Jameson:1996:DMD**
- [Jam96] Leland Jameson. The differentiation matrix for Daubechies-based wavelets on an interval. *SIAM Journal on Scientific Computing*, 17(2):498–516, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26017>. [JBH20]
- Jameson:1998:WOV**
- [Jam98] Leland Jameson. A wavelet-optimized, very high order adaptive grid and order numerical method. *SIAM Journal on Scientific Computing*, 19(6):1980–2013, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30153>. [JBL18]
- Jarlebring:2019:BMN**
- Elias Jarlebring. Broyden’s method for nonlinear eigenproblems. *SIAM Journal on Scientific Computing*, 41(2):A989–A1012, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Jay:1998:SPC**
- Laurent O. Jay. Structure preservation for constrained dynamics with super-partitioned additive Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 20(2):416–446, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29322>.
- Jacangelo:2020:GDH**
- J. Jacangelo, J. W. Banks, and T. Hagstrom. Galerkin differences for high-order partial differential equations. *SIAM Journal on Scientific Computing*, 42(2):B447–B471, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Joyce:2018:PSF**
- Kevin T. Joyce, Johnathan M. Bardsley, and Aaron Luttmann. Point spread function estimation in X-ray imaging with partially collapsed Gibbs

- sampling. *SIAM Journal on Scientific Computing*, 40(3): B766–B787, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JF11]
- Jiang:2021:HPM**
- [JCdS21] Jiahua Jiang, Julianne Chung, and Eric de Sturler. Hybrid projection methods with recycling for inverse problems. *SIAM Journal on Scientific Computing*, 43(5):S146–S172, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JF16]
- Jin:2007:PDD**
- [JCL07] Chao Jin, Xiao-Chuan Cai, and Congming Li. Parallel domain decomposition methods for stochastic elliptic equations. *SIAM Journal on Scientific Computing*, 29(5): 2096–2114, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JFG10]
- Jiao:2010:LOC**
- [JED10] Xiangmin Jiao, Daniel R. Einstein, and Vladimir Dydov. Local orthogonal cutting method for computing medial curves and its biomedical applications. *SIAM Journal on Scientific Computing*, 32(2): 947–969, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JFG13]
- Janna:2011:APR**
- Carlo Janna and Massimiliano Ferronato. Adaptive pattern research for block FSAI preconditioning. *SIAM Journal on Scientific Computing*, 33(6):3357–3380, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3357_s1
- Johansson:2016:FAE**
- H. T. Johansson and C. Forssén. Fast and accurate evaluation of Wigner $3j$, $6j$, and $9j$ symbols using prime factorization and multiword integer arithmetic. *SIAM Journal on Scientific Computing*, 38(1): A376–A384, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Janna:2010:BFI**
- Carlo Janna, Massimiliano Ferronato, and Giuseppe Gambolati. A block FSAI-ILU parallel preconditioner for symmetric positive definite linear systems. *SIAM Journal on Scientific Computing*, 32(5):2468–2484, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Janna:2013:EBF**
- Carlo Janna, Massimiliano Ferronato, and Giuseppe

- Gambolati. Enhanced block FSAI preconditioning using domain decomposition techniques. *SIAM Journal on Scientific Computing*, 35(5): S229–S249, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JFG15] Carlo Janna, Massimiliano Ferronato, and Giuseppe Gambolati. The use of supernodes in factored sparse approximate inverse preconditioning. *SIAM Journal on Scientific Computing*, 37(1): C72–C94, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JFSO23] Carlo Janna, Andrea Franceschini, Jacob B. Schroder, and Luke Olson. Parallel energy-minimization prolongation for algebraic multigrid. *SIAM Journal on Scientific Computing*, 45(5): A2561–A2584, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1513794>.
- [JG02] Peter R. Johnston and Ramesh M. Gulrajani. An analysis of the zero-crossing method for choosing regularization parameters. *SIAM Journal on Scientific Computing*, 24(2):428–442, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37351>.
- [JGZ06] Lili Ju, Max Gunzburger, and Weidong Zhao. Adaptive finite element methods for elliptic PDEs based on conforming centroidal Voronoi–Delaunay triangulations. *SIAM Journal on Scientific Computing*, 28(6): 2023–2053, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Jia14] Rong-Qing Jia. Applications of multigrid algorithms to finite difference schemes for elliptic equations with variable coefficients. *SIAM Journal on Scientific Computing*, 36

Janna:2015:USF**Ju:2006:AFE****Janna:2023:PEM****Jansson:2012:FMP****Johnston:2002:AZC****Jia:2014:AMA**

- (3):A1140–A1162, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JK00]
- [Jin95] **Jin:1995:NPB**
 Xiao-Qing Jin. A note on preconditioned block Toeplitz matrices. *SIAM Journal on Scientific Computing*, 16(4): 951–955, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Jin99] **Jin:1999:EAP**
 Shi Jin. Efficient asymptotic-preserving (AP) schemes for some multiscale kinetic equations. *SIAM Journal on Scientific Computing*, 21(2): 441–454, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33459>.
- [JK05] **Jha:2023:AGC**
 Abhinav Jha, Volker John, and Petr Knobloch. Adaptive grids in the context of algebraic stabilizations for convection–diffusion–reaction equations. *SIAM Journal on Scientific Computing*, 45(4):B564–B589, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1466360>.
- Junk:2000:DIN**
 Michael Junk and Axel Klar. Discretizations for the incompressible Navier–Stokes equations based on the lattice Boltzmann method. *SIAM Journal on Scientific Computing*, 22(1):1–19, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35718>.
- John:2005:FEV**
 Volker John and Songul Kaya. A finite element variational multiscale method for the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 26(5): 1485–1503, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60153>.
- [JK07] **Jamshidi:2007:TBB**
 Arta A. Jamshidi and Michael J. Kirby. Towards a black box algorithm for nonlinear function approximation over high-dimensional domains. *SIAM Journal on Scientific Computing*, 29(3):941–963, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [JK08] **Joe:2008:CSS**
 Stephen Joe and Frances Y. Kuo. Constructing Sobol sequences with better two-dimensional projections. *SIAM Journal on Scientific Computing*, 30(5):2635–2654, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JK10] **Jamshidi:2010:SRB**
 Arta A. Jamshidi and Michael J. Kirby. Skew-radial basis function expansions for empirical modeling. *SIAM Journal on Scientific Computing*, 31(6):4715–4743, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JK11] **Janssen:2011:AMM**
 Bärbel Janssen and Guido Kanschat. Adaptive multilevel methods with local smoothing for H^1 - and H^{curl} -Conforming high order finite element methods. *SIAM Journal on Scientific Computing*, 33(4):2095–2114, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p2095_s1
- [JK12] **Jaroszewicz:2012:AOI**
 Szymon Jaroszewicz and Marcin Korzeń. Arithmetic operations on independent random variables: a numerical approach. *SIAM Journal on Scientific Computing*, 34(3):A1241–A1265, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JK15] **Jamshidi:2015:RBF**
 Arta A. Jamshidi and Michael J. Kirby. A radial basis function algorithm with automatic model order determination. *SIAM Journal on Scientific Computing*, 37(3):A1319–A1341, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JK21] **Joly:2021:LTB**
 Patrick Joly and Maryna Kachanovska. Local transparent boundary conditions for wave propagation in fractal trees (I). Method and numerical implementation. *SIAM Journal on Scientific Computing*, 43(6):A3760–A3788, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JKKM01] **Jenkins:2001:ABD**
 E. W. Jenkins, C. E. Kees, C. T. Kelley, and C. T. Miller. An aggregation-based domain decomposition preconditioner for groundwater flow. *SIAM Journal on Scientific Computing*, 23(2):430–441, March 2001.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37227>.

Jansson:2022:SFE

[JKR08]

[JKL22]

Erik Jansson, Mihály Kovács, and Annika Lang. Surface finite element approximation of spherical Whittle–Matérn Gaussian random fields. *SIAM Journal on Scientific Computing*, 44(2):A825–A842, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1400717>.

Jasra:2018:BSP

[JKLZ18]

Ajay Jasra, Kengo Kamatani, Kody Law, and Yan Zhou. Bayesian static parameter estimation for partially observed diffusions via multi-level Monte Carlo. *SIAM Journal on Scientific Computing*, 40(2):A887–A902, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jarlebring:2014:IIM

[JKM14]

Elias Jarlebring, Simen Kvaal, and Wim Michiels. An inverse iteration method for eigenvalue problems with eigenvector nonlinearities. *SIAM Journal on Scientific Computing*, 36(4):A1978–A2001, 2014. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Johnson:2008:SIC

Chris Johnson, David Keyes, and Ulrich Ruede. Special issue on computational science and engineering. *SIAM Journal on Scientific Computing*, 30(6):vii, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jeong:2021:AMF

[JKY21]

Byeongseon Jeong, Scott N. Kersey, and Jungho Yoon. Approximation of multivariate functions on sparse grids by kernel-based quasi-interpolation. *SIAM Journal on Scientific Computing*, 43(2):A953–A979, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jansons:2003:ETB

[JL03]

Kalvis M. Jansons and G. D. Lythe. Exponential timestepping with boundary test for stochastic differential equations. *SIAM Journal on Scientific Computing*, 24(5):1809–1822, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39953>.

- [JL05a] **Jansons:2005:MET**
 Kalvis M. Jansons and G. D. Lythe. Multidimensional exponential timestepping with boundary test. *SIAM Journal on Scientific Computing*, 27(3):793–808, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/61286>. [JL20]
- [JL05b] **Jones:2005:MMV**
 J. Jones and B. Lee. A multigrid method for variable coefficient Maxwell’s equations. *SIAM Journal on Scientific Computing*, 27(5):1689–1708, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60828.html. [JILGZ20]
- [JL11] **Jia:2011:SSA**
 Jun Jia and Jie Liu. Stable and spectrally accurate schemes for the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 33(5):2421–2439, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resources/jcpms/1/sjoc3/v33/i5/p2421_s1. [JL13]
- [JL19] **Ji:2019:IES**
 Xia Ji and Xiaodong Liu. Inverse electromagnetic source scattering problems with multifrequency sparse phased and phaseless far field data. *SIAM Journal on Scientific Computing*, 41(6):B1368–B1388, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ji:2020:IPL]
- [Ji:2020:IPL]
 Xia Ji and Xiaodong Liu. Identification of point-like objects with multifrequency sparse data. *SIAM Journal on Scientific Computing*, 42(4):A2325–A2343, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Ji:2020:ASO]
- [Ji:2020:ASO]
 Bingquan Ji, Hong lin Liao, Yuezheng Gong, and Luming Zhang. Adaptive second-order Crank–Nicolson time-stepping schemes for time-fractional molecular beam epitaxial growth models. *SIAM Journal on Scientific Computing*, 42(3):B738–B760, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Jin:2018:ESA]
- [Jin:2018:ESA]
 Shi Jin, Hanqing Lu, and Lorenzo Pareschi. Efficient stochastic asymptotic-preserving implicit-explicit methods for transport equations with diffusive scalings and random inputs. *SIAM*

Journal on Scientific Computing, 40(2):A671–A696, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jin:2021:RBE

[JLXZ21]

Shi Jin, Lei Li, Zhenli Xu, and Yue Zhao. A random batch Ewald method for particle systems with Coulomb interactions. *SIAM Journal on Scientific Computing*, 43(4):B937–B960, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[JLZ16a]

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1502872>.

Jiang:2016:ECM

Xue Jiang, Peijun Li, and Weiyang Zheng. Eddy current model for nondestructive evaluation with thin cracks. *SIAM Journal on Scientific Computing*, 38(2):A973–A996, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jin:2008:CIR

[JLY08]

Shi Jin, Xiaomei Liao, and Xu Yang. Computation of interface reflection and regular or diffuse transmission of the planar symmetric radiative transfer equation with isotropic scattering and its diffusion limit. *SIAM Journal on Scientific Computing*, 30(4):1992–2017, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[JLZ16b]

Jin:2016:TFD

Bangti Jin, Raytcho Lazarov, and Zhi Zhou. Two fully discrete schemes for fractional diffusion and diffusion-wave equations with nonsmooth data. *SIAM Journal on Scientific Computing*, 38(1):A146–A170, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jiang:2023:NST

[JLYZ23]

Haiyan Jiang, Tiao Lu, Wenqi Yao, and Weitong Zhang. Numerical study of transient Wigner–Poisson model for RTDs: Numerical method and its applications. *SIAM Journal on Scientific Computing*, 45(4):A1766–A1788, 2023.

[JLZ17]

Jin:2017:CHO

Bangti Jin, Buyang Li, and Zhi Zhou. Correction of high-order BDF convolution quadrature for fractional evolution equations. *SIAM Journal on Scientific Computing*, 39(6):A3129–A3152, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [JM18] **Johansson:2018:FRA**
Fredrik Johansson and Marc Mezzarobba. Fast and rigorous arbitrary-precision computation of Gauss–Legendre quadrature nodes and weights. *SIAM Journal on Scientific Computing*, 40(6):C726–C747, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JML22] **Jin:2022:MLM**
Pengzhan Jin, Shuai Meng, and Lu Lu. MIONet: Learning multiple-input operators via tensor product. *SIAM Journal on Scientific Computing*, 44(6):A3490–A3514, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1477751>.
- [JMM10] **Jarlebring:2010:KMD**
Elias Jarlebring, Karl Meerbergen, and Wim Michiels. A Krylov method for the delay eigenvalue problem. *SIAM Journal on Scientific Computing*, 32(6):3278–3300, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JMN01] **Jager:2001:AAL**
Willi Jäger, Andro Mikelic, and Nicolas Neuss. Asymptotic analysis of the laminar viscous flow over a porous bed. *SIAM Journal on Scientific Computing*, 22(6):2006–2028, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36033>.
- [JMNS16] **Jessup:2016:PBN**
Elizabeth Jessup, Pate Motter, Boyana Norris, and Kanika Sood. Performance-based numerical solver selection in the Lighthouse framework. *SIAM Journal on Scientific Computing*, 38(5):S750–S771, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JMR17] **Jarlebring:2017:WEP**
Elias Jarlebring, Giampaolo Mele, and Olof Runborg. The waveguide eigenvalue problem and the tensor infinite Arnoldi method. *SIAM Journal on Scientific Computing*, 39(3):A1062–A1088, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JN10] **Jia:2010:RHL**
Zhongxiao Jia and Datian Niu. A refined harmonic Lanczos bidiagonalization method and an implicitly restarted algorithm for computing the smallest singular triplets of large matrices. *SIAM Journal on Scientific*

Computing, 32(2):714–744, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Jou94]

Jakeman:2017:GSP

[JNZ17] John D. Jakeman, Akil Narayan, and Tao Zhou. A generalized sampling and preconditioning scheme for sparse approximation of polynomial chaos expansions. *SIAM Journal on Scientific Computing*, 39(3):A1114–A1144, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JP93]

Joe:1993:CDD

[Joe93] Barry Joe. Construction of k -dimensional Delaunay triangulations using local transformations. *SIAM Journal on Scientific Computing*, 14(6):1415–1436, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JP95]

Joe:1995:CTD

[Joe95] Barry Joe. Construction of three-dimensional improved-quality triangulations using local transformations. *SIAM Journal on Scientific Computing*, 16(6):1292–1307, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JP97]

Joubert:1994:RGB

Wayne Joubert. A robust GMRES-based adaptive polynomial preconditioning algorithm for nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 15(2):427–439, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Jones:1993:PGC

Mark T. Jones and Paul E. Plassmann. A parallel graph coloring heuristic. *SIAM Journal on Scientific Computing*, 14(3):654–669, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jeltsch:1995:WRO

Rolf Jeltsch and Bert Pohl. Waveform relaxation with overlapping splittings. *SIAM Journal on Scientific Computing*, 16(1):40–49, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jones:1997:PAA

Mark T. Jones and Paul E. Plassmann. Parallel algorithms for adaptive mesh refinement. *SIAM Journal on Scientific Computing*, 18(3):686–708, May 1997.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28065>.

Jiang:2000:WES

[JP00]

Guang-Shan Jiang and Dan-ping Peng. Weighted ENO schemes for Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 21(6): 2126–2143, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32455>.

Jung:2001:TDS

[JP01]

Eunok Jung and Charles S. Peskin. Two-dimensional simulations of valveless pumping using the immersed boundary method. *SIAM Journal on Scientific Computing*, 23(1):19–45, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36609>.

Jokar:2008:EAS

[JP08]

Sadegh Jokar and Marc E. Pfetsch. Exact and approximate sparse solutions of underdetermined linear equations. *SIAM Journal on Scientific Computing*, 31(1): 23–44, 2008. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Jungers:2011:FMC

Raphaël M. Jungers and Vladimir Y. Protasov. Fast methods for computing the p -radius of matrices. *SIAM Journal on Scientific Computing*, 33(3):1246–1266, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1246_s1.

Jourdana:2014:HCQ

C. Jourdana and P. Pietra. A hybrid classical-quantum transport model for the simulation of carbon nanotube transistors. *SIAM Journal on Scientific Computing*, 36(3): B486–B507, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Jamshidi:2016:RLP

[JP16]

Arta A. Jamshidi and Warren B. Powell. A recursive local polynomial approximation method using Dirichlet clouds and radial basis functions. *SIAM Journal on Scientific Computing*, 38(4): B619–B644, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [JR96] **Jung:1996:IEM**
 Michael Jung and Ulrich Rde. Implicit extrapolation methods for multilevel finite element computations. *SIAM Journal on Scientific Computing*, 17(1):156–179, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [JR98] **Jung:1998:IEM**
 M. Jung and U. Rde. Implicit extrapolation methods for variable coefficient problems. *SIAM Journal on Scientific Computing*, 19(4):1109–1124, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29355>.
- [JR19] **Jbilou:2019:NLS**
 Khalide Jbilou and Marcos Raydan. Nonlinear least-squares approach for large-scale algebraic Riccati equations. *SIAM Journal on Scientific Computing*, 41(4):A2193–A2211, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JS93] **Jackson:1993:ALE**
 K. R. Jackson and W. L. Seward. Adaptive linear equation solvers in codes for large stiff systems of ODEs. *SIAM Journal on Scientific Computing*, 14(4):800–823, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JS10] **Jin:2010:MMD**
 Shi Jin and Yingzhe Shi. A micro-macro decomposition-based asymptotic-preserving scheme for the multispecies Boltzmann equation. *SIAM Journal on Scientific Computing*, 31(6):4580–4606, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JSCB20] **Jiang:2020:ENM**
 Kai Jiang, Wei Si, Chang Chen, and Chenglong Bao. Efficient numerical methods for computing the stationary states of phase field crystal models. *SIAM Journal on Scientific Computing*, 42(6):B1350–B1377, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [JSPC97] **Jay:1997:IQS**
 L. O. Jay, A. Sandu, F. A. Potra, and G. R. Carmichael. Improved quasi-steady-state approximation methods for atmospheric chemistry integration. *SIAM Journal on Scientific Computing*, 18(1):182–202, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28303>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Jiraneck:2010:PEE

- [JSV10] Pavel Jiránek, Zdeněk Strakoš, and Martin Vohralík. A posteriori error estimates including algebraic error and stopping criteria for iterative solvers. *SIAM Journal on Scientific Computing*, 32(3):1567–1590, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JT98]

Jiang:2013:AFF

- [JSZ13] Yan Jiang, Chi-Wang Shu, and Mengping Zhang. An alternative formulation of finite difference weighted ENO schemes with Lax–Wendroff time discretization for conservation laws. *SIAM Journal on Scientific Computing*, 35(2):A1137–A1160, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JTZ08]

Jiang:2022:GAD

- [JSZ22] Kai Jiang, Xuehong Su, and Juan Zhang. A general alternating-direction implicit framework with Gaussian process regression parameter prediction for large sparse linear systems. *SIAM Journal on Scientific Computing*, 44

(4):A1960–A1988, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1450197>.

Jiang:1998:NCS

Guang-Shan Jiang and Eitan Tadmor. Nonoscillatory central schemes for multidimensional hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 19(6):1892–1917, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31041>.

Jain:2008:HMA

S. Jain, P. Tsiotras, and H.-M. Zhou. A hierarchical multiresolution adaptive mesh refinement for the solution of evolution PDEs. *SIAM Journal on Scientific Computing*, 31(2):1221–1248, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Janssen:1996:MWR

Jan Janssen and Stefan Vandewalle. Multigrid waveform relaxation on spatial finite element meshes: The discrete-time case. *SIAM Journal on Scientific Computing*, 17(1):133–155, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994). [JW05]
- [JV01] **Jones:2001:ABE**
 Jim E. Jones and Panayot S. Vassilevski. AMGE based on element agglomeration. *SIAM Journal on Scientific Computing*, 23(1):109–133, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36104>.
- [JVG12] **Jiang:2012:IEM**
 Shidong Jiang, Shравan Veerapaneni, and Leslie Greengard. Integral equation methods for unsteady Stokes flow in two dimensions. *SIAM Journal on Scientific Computing*, 34(4):A2197–A2219, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JW13]
- [JvGVS13] **Jonsthovel:2013:URB**
 T. B. Jönsthövel, M. B. van Gijzen, C. Vuik, and A. Scarpas. On the use of rigid body modes in the deflated preconditioned conjugate gradient method. *SIAM Journal on Scientific Computing*, 35(1):B207–B225, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Jin:2005:TIT**
 Shi Jin and Xin Wen. Two interface-type numerical methods for computing hyperbolic systems with geometrical source terms having concentrations. *SIAM Journal on Scientific Computing*, 26(6):2079–2101, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60582>.
- Jeong:2008:FIM**
 Won-Ki Jeong and Ross T. Whitaker. A fast iterative method for eikonal equations. *SIAM Journal on Scientific Computing*, 30(5):2512–2534, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Jin:2013:APN**
 Shi Jin and Li Wang. Asymptotic-preserving numerical schemes for the semiconductor Boltzmann equation efficient in the high field regime. *SIAM Journal on Scientific Computing*, 35(3):B799–B819, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Jiao:2021:OLM**
 Xiangmin Jiao, Xuebin Wang, and Qiao Chen. Optimal and low-memory near-optimal

- preconditioning of fully implicit Runge–Kutta schemes for parabolic PDEs. *SIAM Journal on Scientific Computing*, 43(5):A3527–A3551, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [JZ00]
- [JWH08] Shi Jin, Hao Wu, and Zhongyi Huang. A hybrid phase-flow method for Hamiltonian systems with discontinuous Hamiltonians. *SIAM Journal on Scientific Computing*, 31(2):1303–1321, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Jin:2008:HPF**
- [JX13] Yi Jiang and Zhengfu Xu. Parametrized maximum principle preserving limiter for finite difference WENO schemes solving convection-dominated diffusion equations. *SIAM Journal on Scientific Computing*, 35(6):A2524–A2553, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Jiang:2013:PMP**
- [JY21] Nan Jiang and Huanhuan Yang. Stabilized scalar auxiliary variable ensemble algorithms for parameterized flow problems. *SIAM Journal on Scientific Computing*, 43(4):A2869–A2896, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Jiang:2021:SSA**
- H. M. Jurgens and D. W. Zingg. Numerical solution of the time-domain Maxwell equations using high-accuracy finite-difference methods. *SIAM Journal on Scientific Computing*, 22(5):1675–1696, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33466>. **Jurgens:2000:NST**
- [JZ13] Zhongxiao Jia and Qian Zhang. An approach to making SPAI and PSAI preconditioning effective for large irregular sparse linear systems. *SIAM Journal on Scientific Computing*, 35(4):A1903–A1927, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Jia:2013:AMS**
- [JZX+21] Junxiong Jia, Qian Zhao, Zongben Xu, Deyu Meng, and Yee Leung. Variational Bayes’ method for functions with applications to some inverse problems. *SIAM Journal on Scientific Computing*, 43(1):A355–A383, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Jia:2021:VBM**

- [KA95] **Kaporin:1995:CNE**
Igor E. Kaporin and Owe Axelsson. On a class of nonlinear equation solvers based on the residual norm reduction over a sequence of affine subspaces. *SIAM Journal on Scientific Computing*, 16(1):228–249, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kal20] **Kalantzis:2020:DDR**
Vassilis Kalantzis. A domain decomposition Rayleigh–Ritz algorithm for symmetric generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 42(6):C410–C435, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KALO07] **Knyazev:2007:BLO**
A. V. Knyazev, M. E. Argentati, I. Lashuk, and E. E. Ovtchinnikov. Block Locally Optimal Preconditioned Eigenvalue Solvers (BLOPEX) in Hypra and PETSc. *SIAM Journal on Scientific Computing*, 29(5):2224–2239, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kan03a] **Kang:2003:NFE**
Kab Seok Kang. P_1 non-conforming finite element multigrid method for radiation transport. *SIAM Journal on Scientific Computing*, 25(2):369–384, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40735>.
- [Kan03b] **Kanschat:2003:PML**
Guido Kanschat. Preconditioning methods for local discontinuous Galerkin discretizations. *SIAM Journal on Scientific Computing*, 25(3):815–831, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41065>.
- [Kar96] **Karni:1996:HMA**
Smadar Karni. Hybrid multi-fluid algorithms. *SIAM Journal on Scientific Computing*, 17(5):1019–1039, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28003>.
- [Kas95] **Kasenny:1995:GGM**
Ebrahim M. Kasenny. GM-BACK: a generalised minimum backward error algorithm for nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 16(3):698–719, May 1995. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Ke:2021:IRG

[KASL21]

Chengyu Ke, Miju Ahn, Sun-young Shin, and Yifei Lou. Iteratively reweighted group lasso based on log-composite regularization. *SIAM Journal on Scientific Computing*, 43(5):S655–S678, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[Kaw18]

(4):A1586–A1615, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kawai:2018:OAI

Reiichiro Kawai. Optimizing adaptive importance sampling by stochastic approximation. *SIAM Journal on Scientific Computing*, 40(4):A2774–A2800, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kayaaslan:2018:PSM

[KAU18]

Enver Kayaaslan, Cevdet Aykanat, and Bora Uçar. 1.5D parallel sparse matrix–vector multiply. *SIAM Journal on Scientific Computing*, 40(1):C25–C46, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KB96]

Knusel:1996:CNG

L. Knüsel and B. Bablok. Computation of the non-central gamma distribution. *SIAM Journal on Scientific Computing*, 17(5):1224–1231, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26363>.

Kawai:2015:MIR

[Kaw15]

Reiichiro Kawai. Measuring impact of random jumps without sample path generation. *SIAM Journal on Scientific Computing*, 37(6):A2558–A2582, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KB08]

Kameswaran:2008:ANP

Shivakumar Kameswaran and Lorenz T. Biegler. Advantages of nonlinear-programming-based methodologies for inequality path-constrained optimal control problems — a numerical study. *SIAM Journal on Scientific Computing*, 30(2):957–981, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kawai:2017:AAI

[Kaw17]

Reiichiro Kawai. Acceleration on adaptive importance sampling with sample average approximation. *SIAM Journal on Scientific Computing*, 39

- [KBD21] **Kollnig:2021:RSF**
Konrad Kollnig, Paolo Bientinesi, and Edoardo A. Di Napoli. Rational spectral filters with optimal convergence rate. *SIAM Journal on Scientific Computing*, 43(4):A2660–A2684, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KBG18] **Kooij:2018:ETI**
Gijs L. Kooij, Mike A. Botchev, and Bernard J. Geurts. An exponential time integrator for the incompressible Navier–Stokes equation. *SIAM Journal on Scientific Computing*, 40(3):B684–B705, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KBG23] **Knopp:2023:NJG**
Tobias Knopp, Marija Boberg, and Mirco Grosser. NFFT.jl: Generic and fast Julia implementation of the Nonequidistant Fast Fourier Transform. *SIAM Journal on Scientific Computing*, 45(3):C179–C205, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1510935>.
- [KBK⁺08] **Kerr:2008:FMC**
Rex A. Kerr, Thomas M. Bartol, Boris Kaminsky, Markus Dittrich, Jen-Chien Jack Chang, Scott B. Baden, Terrence J. Sejnowski, and Joel R. Stiles. Fast Monte Carlo simulation methods for biological reaction-diffusion systems in solution and on surfaces. *SIAM Journal on Scientific Computing*, 30(6):3126–3149, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KBP17] **Kuberry:2017:OBA**
Paul Kuberry, Pavel Bochev, and Kara Peterson. An optimization-based approach for elliptic problems with interfaces. *SIAM Journal on Scientific Computing*, 39(5):S757–S781, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KBV09] **Kandaswamy:2009:ASN**
D. Kandaswamy, T. Blu, and D. Van De Ville. Analytic sensing: Noniterative retrieval of point sources from boundary measurements. *SIAM Journal on Scientific Computing*, 31(4):3179–3194, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KC16] **Kong:2016:HSM**
Fande Kong and Xiao-Chuan Cai. A highly scalable multilevel Schwarz method with

- boundary geometry preserving coarse spaces for 3D elasticity problems on domains with complex geometry. *SIAM Journal on Scientific Computing*, 38(2):C73–C95, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KD20]
- Komori:2017:WSO**
- [KCB17] Yoshio Komori, David Cohen, and Kevin Burrage. Weak second order explicit exponential Runge–Kutta methods for stochastic differential equations. *SIAM Journal on Scientific Computing*, 39(6):A2857–A2878, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KdS05]
- Karageorghis:2016:KRA**
- [KCL16] Andreas Karageorghis, C. S. Chen, and Xiao-Yan Liu. Kansa–RBF algorithms for elliptic problems in axisymmetric domains. *SIAM Journal on Scientific Computing*, 38(1):A435–A470, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kea97]
- Kelly:2015:PPC**
- [KCZ15] D. M. Kelly, Q. Chen, and J. Zang. PICIN: a particle-in-cell solver for incompressible free surface flows with two-way fluid-solid coupling. *SIAM Journal on Scientific Computing*, 37(3):B403–B424, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Klockiewicz:2020:SHP**
- Bazyli Klockiewicz and Eric Darve. Sparse hierarchical preconditioners using piecewise smooth approximations of eigenvectors. *SIAM Journal on Scientific Computing*, 42(6):A3907–A3931, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kilmer:2005:RSI**
- Misha E. Kilmer and Eric de Sturler. Recycling subspace information for diffuse optical tomography. *SIAM Journal on Scientific Computing*, 27(6):2140–2166, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61027.html.
- Kearfott:1997:EEI**
- R. Baker Kearfott. Empirical evaluation of innovations in interval branch and bound algorithms for nonlinear systems. *SIAM Journal on Scientific Computing*, 18(2):574–594, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- /epubs.siam.org/sam-bin/dbq/article/26613.
- Kusch:2023:SRD**
- [KEC23] Jonas Kusch, Lukas Einkemmer, and Gianluca Ceruti. On the stability of robust dynamical low-rank approximations for hyperbolic problems. *SIAM Journal on Scientific Computing*, 45(1):A1–A24, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446289>.
- Kublik:2011:AAP**
- [KEF11] Catherine Kublik, Selim Esedoğlu, and Jeffrey A. Fessler. Algorithms for area preserving flows. *SIAM Journal on Scientific Computing*, 33(5):2382–2401, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2382_s1.
- Keiner:2009:CEG**
- [Kei09] Jens Keiner. Computing with expansions in Gegenbauer polynomials. *SIAM Journal on Scientific Computing*, 31(3):2151–2171, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ketcheson:2008:HES**
- [Ket08] David I. Ketcheson. Highly efficient strong stability-preserving Runge–Kutta methods with low-storage implementations. *SIAM Journal on Scientific Computing*, 30(4):2113–2136, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kan:2021:PBP**
- [KFR21] Kelvin Kan, Samy Wu Fung, and Lars Ruthotto. PNKH-B: a projected Newton–Krylov method for large-scale bound-constrained optimization. *SIAM Journal on Scientific Computing*, 43(5):S704–S726, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kopriva:2014:ESD**
- [KG14] David A. Kopriva and Gregor J. Gassner. An energy stable discontinuous Galerkin spectral element discretization for variable coefficient advection problems. *SIAM Journal on Scientific Computing*, 36(4):A2076–A2099, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kramer:2018:SIC**
- [KG18] Boris Kramer and Alex A. Gorodetsky. System identification via CUR-factored Hankel approximation. *SIAM Journal on Scientific Computing*, 40(2):A848–A866, ??? 2018. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Kandappan:2023:HNC

[KGA23]

V. A. Kandappan, Vaishnavi Gujjula, and Sivaram Ambikasaran. HODLR2D: a new class of hierarchical matrices. *SIAM Journal on Scientific Computing*, 45(5): A2382–A2408, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1491253>.

Kay:2010:ATS

[KGG10]

David A. Kay, Philip M. Gresho, David F. Griffiths, and David J. Silvester. Adaptive time-stepping for incompressible flow. Part II: Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 32(1):111–128, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Karalashvili:2008:IIT

[KGM⁺08]

Maka Karalashvili, Sven Groß, Adel Mhamdi, Arnold Reusken, and Wolfgang Marquardt. Incremental identification of transport coefficients in convection-diffusion systems. *SIAM Journal on Scientific Computing*, 30(6): 3249–3269, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KGM⁺11]

Karalashvili:2011:ITC

Maka Karalashvili, Sven Groß, Wolfgang Marquardt, Adel Mhamdi, and Arnold Reusken. Identification of transport coefficient models in convection-diffusion equations. *SIAM Journal on Scientific Computing*, 33(1): 303–327, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p303_s1.

Kirchhart:2016:AXD

[KGR16]

Matthias Kirchhart, Sven Gross, and Arnold Reusken. Analysis of an XFEM discretization for Stokes interface problems. *SIAM Journal on Scientific Computing*, 38(2):A1019–A1043, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kuster:2007:FNM

[KGT07]

Christopher M. Kuster, Pierre A. Gremaud, and Rachid Touzani. Fast numerical methods for Bernoulli free boundary problems. *SIAM Journal on Scientific Computing*, 29(2): 622–634, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Khamayseh:2000:QOG

[KH00]

Ahmed Khamayseh and Glen Hansen. Quasi-orthogonal

- grids with impedance matching. *SIAM Journal on Scientific Computing*, 22(4): 1220–1237, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35861>. [KHE07]
- [KH14] Alexander G. Kalmikov and Patrick Heimbach. A Hessian-based method for uncertainty quantification in global ocean state estimation. *SIAM Journal on Scientific Computing*, 36(5):S267–S295, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kalmikov:2014:HBM**
- [KH18] Wang Kong and Zhongyi Huang. Asymptotic analysis and numerical method for singularly perturbed eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(5):A3293–A3321, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kong:2018:AAN**
- [KH22] Bernard Kapidani and Rafael Vázquez Hernandez. High order geometric methods with splines: an analysis of discrete Hodgestar operators. *SIAM Journal on Scientific Computing*, 44(6):A3673–A3699, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kapidani:2022:HOG**
- [Kilmer:2007:PBA] Misha E. Kilmer, Per Christian Hansen, and Malena I. Español. A projection-based approach to general-form Tikhonov regularization. *SIAM Journal on Scientific Computing*, 29(1): 315–330, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1481762>. **Kilmer:2007:PBA**
- [Kramer:2016:PSM] Stephan C. Kramer, Johannes Hagemann, Lutz Künneke, and Jan Lebert. Parallel statistical multiresolution estimation for image reconstruction. *SIAM Journal on Scientific Computing*, 38(5):C533–C559, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kramer:2016:PSM**
- [KHRvBW13] D. P. Kouri, M. Heinkenschloss, D. Ridzal, and B. G. van Bloemen Waanders. A trust-region algorithm with adaptive stochastic collocation for PDE optimization under uncertainty. *SIAM Journal on Scientific Computing*, 35(4):A1847–A1879, ??? 2013. CODEN SJOCE3. **Kouri:2013:TRA**

ISSN 1064-8275 (print), 1095-7197 (electronic).

Kouri:2014:IOF

- [KHRvBW14] D. P. Kouri, M. Heinkenschloss, D. Ridzal, and B. G. van Bloemen Waanders. Inexact objective function evaluations in a trust-region algorithm for PDE-Constrained optimization under uncertainty. *SIAM Journal on Scientific Computing*, 36(6): A3011–A3029, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Korn:1996:VMB

- [KHU96] C. Falcó Korn, B. Hörmann, and C. P. Ullrich. Verification may be better than estimation. *SIAM Journal on Scientific Computing*, 17(4): 1013–1017, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kreutzer:2014:USM

- [KHW⁺14] Moritz Kreutzer, Georg Hager, Gerhard Wellein, Holger Fehske, and Alan R. Bishop. A unified sparse matrix data format for efficient general sparse matrix-vector multiplication on modern processors with wide SIMD units. *SIAM Journal on Scientific Computing*, 36(5):C401–C423, 2014. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Kim:2005:DGM

- [Kim05] Mi-Young Kim. Discontinuous Galerkin methods for a model of population dynamics with unbounded mortality. *SIAM Journal on Scientific Computing*, 27(4): 1371–1393, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_62418.html.

Kim:2008:DCG

- [Kim08] Mi-Young Kim. Discontinuous Galerkin methods for a structured model of a biological system. *SIAM Journal on Scientific Computing*, 31(2):913–938, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kirby:2014:LCF

- [Kir14] Robert C. Kirby. Low-complexity finite element algorithms for the de Rham complex on simplices. *SIAM Journal on Scientific Computing*, 36(2):A846–A868, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Karypis:1998:FHQ

- [KK98] George Karypis and Vipin Kumar. A fast and high quality multilevel scheme for

- partitioning irregular graphs. *SIAM Journal on Scientific Computing*, 20(1):359–392, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28799>.
- [KK02a] Ahmed Khamayseh and Andrew Kuprat. Hybrid curve point distribution algorithms. *SIAM Journal on Scientific Computing*, 23(5):1464–1484, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36759>.
- [KK02b] Seongjai Kim and Soohyun Kim. Multigrid simulation for high-frequency solutions of the Helmholtz problem in heterogeneous media. *SIAM Journal on Scientific Computing*, 24(2):684–701, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38542>.
- [KK09] B. N. Khoromskij and V. Khoromskaia. Multigrid accelerated tensor approximation of function related multidimensional arrays. *SIAM Journal on Scientific Computing*, 31(4):3002–3026, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KK13] Kenji Kashima and Reiihiro Kawai. On weak approximation of stochastic differential equations through hard bounds by mathematical programming. *SIAM Journal on Scientific Computing*, 35(1):A1–A21, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KK16] G. Yu. Kulikov and M. V. Kulikova. Estimating the state in stiff continuous-time stochastic systems within extended Kalman filtering. *SIAM Journal on Scientific Computing*, 38(6):A3565–A3588, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KK18] Dante Kalise and Karl Kunisch. Polynomial approximation of high-dimensional Hamilton–Jacobi–Bellman equations and applications to feedback control of semilinear parabolic PDEs. *SIAM Journal on Scientific Computing*,

40(2):A629–A652, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kopanicakova:2023:GCM

[KK23]

Alena Kopanicáková and Rolf Krause. Globally convergent multilevel training of deep residual networks. *SIAM Journal on Scientific Computing*, 45(3):S254–S280, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434076>.

Khoromskij:2011:NSH

[KKF11]

B. N. Khoromskij, V. Khoromskaia, and H.-J. Flad. Numerical solution of the Hartree–Fock equation in multilevel tensor-structured format. *SIAM Journal on Scientific Computing*, 33(1):45–65, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p45_s1.

Kalise:2016:LMA

[KKK16]

Dante Kalise, Axel Kröner, and Karl Kunisch. Local minimization algorithms for dynamic programming equations. *SIAM Journal on Scientific Computing*, 38(3):A1587–A1615, 2016. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Kroner:2018:FEA

Axel Kröner, Eva Kröner, and Heiko Kröner. Finite element approximation of level set motion by powers of the mean curvature. *SIAM Journal on Scientific Computing*, 40(6):A4158–A4183, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kirby:2005:OEF

Robert C. Kirby, Matthew Knepley, Anders Logg, and L. Ridgway Scott. Optimizing the evaluation of finite element matrices. *SIAM Journal on Scientific Computing*, 27(3):741–758, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60782>.

Keshavarzzadeh:2018:NIM

Vahid Keshavarzzadeh, Robert M. Kirby, and Akil Narayan. Numerical integration in multiple dimensions with designed quadrature. *SIAM Journal on Scientific Computing*, 40(4):A2033–A2061, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KKK18]

[KKLS05]

[KKN18]

- [KKN21] **Keshavarzzadeh:2021:MDQ**
 Vahid Keshavarzzadeh, Robert M. Kirby, and Akil Narayan. Multilevel designed quadrature for partial differential equations with random inputs. *SIAM Journal on Scientific Computing*, 43(2):A1412–A1440, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KKS08]
- [KKP14] **Kalligiannaki:2014:STL**
 Evangelia Kalligiannaki, Markos A. Katsoulakis, and Petr Plecháč. Spatial two-level interacting particle simulations and information theory-based error quantification. *SIAM Journal on Scientific Computing*, 36(2):A634–A667, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KKS13]
- [KKR16] **Klawonn:2016:ACS**
 Axel Klawonn, Martin Kühn, and Oliver Rheinbach. Adaptive coarse spaces for FETI-DP in three dimensions. *SIAM Journal on Scientific Computing*, 38(5):A2880–A2911, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KKS21]
- [KKR21] **Kuhn:2021:EMS**
 Martin Joachim Kühn, Carola Kruse, and Ulrich Rude. Energy-minimizing, symmetric discretizations for anisotropic meshes and energy functional extrapolation. *SIAM Journal on Scientific Computing*, 43(4):A2448–A2473, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KKS21]
- Kampen:2008:MCG**
 Jörg Kampen, Anastasia Kolodko, and John Schoenmakers. Monte Carlo Greeks for financial products via approximative transition densities. *SIAM Journal on Scientific Computing*, 31(1):1–22, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Khoromskaia:2013:TSF**
 V. Khoromskaia, B. N. Khoromskij, and R. Schneider. Tensor-structured factorized calculation of two-electron integrals in a general basis. *SIAM Journal on Scientific Computing*, 35(2):A987–A1010, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kirby:2021:FEH**
 Robert C. Kirby, Andreas Klöckner, and Ben Sepanski. Finite elements for Helmholtz equations with a nonlocal boundary condition. *SIAM Journal on Scientific Computing*, 43(3):A1671–A1691, 2021. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Kazeev:2013:MTM

[KKT13]

Vladimir A. Kazeev, Boris N. Khoromskij, and Eugene E. Tyrtysnikov. Multilevel Toeplitz matrices generated by tensor-structured vectors and convolution with logarithmic complexity. *SIAM Journal on Scientific Computing*, 35(3):A1511–A1536, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kopanicakova:2019:SBN

[KKT19]

Alena Kopanicáková, Rolf Krause, and Rasmus Tamstorf. Subdivision-based nonlinear multiscale cloth simulation. *SIAM Journal on Scientific Computing*, 41(5):S433–S461, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kalchev:2013:TLA

[KKV13]

D. Kalchev, C. Ketelsen, and P. S. Vassilevski. Two-level adaptive algebraic multigrid for a sequence of problems with slowly varying random coefficients. *SIAM Journal on Scientific Computing*, 35(6):B1215–B1234, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KKZ17]

Kang:2017:OSP

Sung Ha Kang, Seong Jun Kim, and Haomin Zhou. Optimal sensor positioning; a probability perspective study. *SIAM Journal on Scientific Computing*, 39(5):B759–B777, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kenney:1994:SSS

[KL94]

C. S. Kenney and A. J. Laub. Small-sample statistical condition estimates for general matrix functions. *SIAM Journal on Scientific Computing*, 15(1):36–61, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kurganov:2000:TOS

[KL00a]

Alexander Kurganov and Doron Levy. A third-order semidiscrete central scheme for conservation laws and convection-diffusion equations. *SIAM Journal on Scientific Computing*, 22(4):1461–1488, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36023>.

Kvaerno:2000:TRR

[KL00b]

Anne Kvaerno and Ben Leimkuhler. A time-reversible, regularized, switching integrator for the N -body

- problem. *SIAM Journal on Scientific Computing*, 22(3):1016–1035, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35556>.
- [KL05] **Kay:2005:BPH** [KL11] David Kay and Emil Lungu. A block preconditioner for high-order mixed finite element approximations to the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 27(6):1867–1880, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60904.html.
- [KL06] **Kim:2006:NDP** [KL12] Hyea Hyun Kim and Chang-Ock Lee. A Neumann–Dirichlet preconditioner for a FETI-DP formulation of the two-dimensional Stokes problem with mortar methods. *SIAM Journal on Scientific Computing*, 28(3):1133–1152, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KL10] **Kim:2010:FDK** [KL13a] Hyea Hyun Kim and Chang-Ock Lee. A FETI-DP formulation for the three-dimensional Stokes problem without primal pressure unknowns. *SIAM Journal on Scientific Computing*, 32(6):3301–3322, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kwon:2011:SOT** YongHoon Kwon and Younhee Lee. A second-order tridiagonal method for American options under jump-diffusion models. *SIAM Journal on Scientific Computing*, 33(4):1860–1872, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1860_s1.
- Kolmbauer:2012:RPM** Michael Kolmbauer and Ulrich Langer. A robust preconditioned MinRes solver for distributed time-periodic eddy current optimal control problems. *SIAM Journal on Scientific Computing*, 34(6):B785–B809, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kleefeld:2013:GGM** Andreas Kleefeld and Tzu-Chu Lin. A global Galerkin method for solving the exterior Neumann problem for the Helmholtz equation using Panich’s integral equation approach. *SIAM Journal on*

- Scientific Computing*, 35(3): A1709–A1735, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KL13b] **Kormann:2013:GRB**
Katharina Kormann and Elisabeth Larsson. A Galerkin radial basis function method for the Schrödinger equation. *SIAM Journal on Scientific Computing*, 35(6): A2832–A2855, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KL15] **Karangelis:2015:CNE**
Anastasios Karangelis and Sébastien Loisel. Condition number estimates and weak scaling for 2-level 2-Lagrange multiplier methods for general domains and cross points. *SIAM Journal on Scientific Computing*, 37(2): C247–C267, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kla98a] **Klar:1998:AID**
Axel Klar. Asymptotic-induced domain decomposition methods for kinetic and drift diffusion semiconductor equations. *SIAM Journal on Scientific Computing*, 19(6): 2032–2050, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28617>.
- [Kla98b] **Klawonn:1998:BTP**
Axel Klawonn. Block-triangular preconditioners for saddle point problems with a penalty term. *SIAM Journal on Scientific Computing*, 19(1):172–184, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30362>.
- [Kla98c] **Klawonn:1998:OPC**
Axel Klawonn. An optimal preconditioner for a class of saddle point problems with a penalty term. *SIAM Journal on Scientific Computing*, 19(2):540–552, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27957>.
- [Kla99] **Klar:1999:NMK**
Axel Klar. A numerical method for kinetic semiconductor equations in the drift-diffusion limit. *SIAM Journal on Scientific Computing*, 20(5):1696–1712, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31925>.

- [KLJ10] **Kim:2010:IBH** Yongsam Kim, Wanho Lee, and Eunok Jung. An immersed boundary heart model coupled with a multi-compartment lumped model of the circulatory system. *SIAM Journal on Scientific Computing*, 32(4):1809–1831, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KLL⁺16] **Kraus:2016:PHP** Johannes Kraus, Raytcho Lazarov, Maria Lymbery, Svetozar Margenov, and Ludmil Zikatanov. Preconditioning heterogeneous $\mathbf{H}(\text{div})$ problems by additive Schur complement approximation and applications. *SIAM Journal on Scientific Computing*, 38(2):A875–A898, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KLLM22] **Kurganov:2022:WBA** Alexander Kurganov, Yongle Liu, and Mária Lukáčová-Medvidová. A well-balanced asymptotic preserving scheme for the two-dimensional rotating shallow water equations with nonflat bottom topography. *SIAM Journal on Scientific Computing*, 44(3):A1655–A1680, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M141573X>.
- [KLLY20] **Khoo:2020:SRM** Yuehaw Khoo, Lin Lin, Michael Lindsey, and Lexing Ying. Semidefinite relaxation of multimarginal optimal transport for strictly correlated electrons in second quantization. *SIAM Journal on Scientific Computing*, 42(6):B1462–B1489, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KLN20] **Klibanov:2020:NSL** Michael V. Klibanov, Thuy T. Le, and Loc H. Nguyen. Numerical solution of a linearized travel time tomography problem with incomplete data. *SIAM Journal on Scientific Computing*, 42(5):B1173–B1192, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KLR98] **Kenney:1998:SCE** C. S. Kenney, A. J. Laub, and M. S. Reese. Statistical condition estimation for linear systems. *SIAM Journal on Scientific Computing*, 19(2):566–583, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28251>.

- [KLR14] **Klawonn:2014:NFD**
Axel Klawonn, Martin Lanser, and Oliver Rheinbach. Nonlinear FETI-DP and BDDC methods. *SIAM Journal on Scientific Computing*, 36(2): A737–A765, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KLR15] **Klawonn:2015:TES**
Axel Klawonn, Martin Lanser, and Oliver Rheinbach. Toward extremely scalable nonlinear domain decomposition methods for elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 37(6):C667–C696, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KLS⁺15]
- [KLRU17] **Klawonn:2017:NFD**
Axel Klawonn, Martin Lanser, Oliver Rheinbach, and Matthias Uran. Nonlinear FETI-DP and BDDC methods: a unified framework and parallel results. *SIAM Journal on Scientific Computing*, 39(6): C417–C451, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KLST06]
- [KLS08] **Kolehmainen:2008:LDX**
Ville Kolehmainen, Matti Lassas, and Samuli Siltanen. Limited data X-ray tomography using nonlinear evolution equations. *SIAM Journal on Scientific Computing*, 30(3): 1413–1429, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Karlsson:2015:EES]
- [Karlsson:2015:EES] Jesper Karlsson, Stig Larsson, Mattias Sandberg, Anders Szepessy, and Raúl Tempone. An error estimate for symplectic Euler approximation of optimal control problems. *SIAM Journal on Scientific Computing*, 37(2): A946–A969, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kirby:2006:TOE] **Kirby:2006:TOE**
Robert C. Kirby, Anders Logg, L. Ridgway Scott, and Andy R. Terrel. Topological optimization of the evaluation of finite element matrices. *SIAM Journal on Scientific Computing*, 28(1): 224–240, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63554.html.
- [Kinderlehrer:2006:VAM] **Kinderlehrer:2006:VAM**
David Kinderlehrer, Irene Livshits, and Shlomo Ta’asan. A variational approach to modeling and simulation of grain growth. *SIAM Journal on Scientific Computing*, 28

(5):1694–1715, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kocvara:2016:CIP

[KLT16]

M. Kocvara, D. Loghin, and J. Turner. Constraint interface preconditioning for topology optimization problems. *SIAM Journal on Scientific Computing*, 38(1):A128–A145, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kalchev:2016:UMF

[KLV⁺16]

D. Z. Kalchev, C. S. Lee, U. Villa, Y. Efendiev, and P. S. Vassilevski. Upscaling of mixed finite element discretization problems by the spectral AMGe method. *SIAM Journal on Scientific Computing*, 38(5):A2912–A2933, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kay:2002:PSS

[KLW02]

David Kay, Daniel Loghin, and Andrew Wathen. A preconditioner for the steady-state Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 24(1):237–256, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

[/epubs.siam.org/sam-bin/dbq/article/35808](http://epubs.siam.org/sam-bin/dbq/article/35808).

Klingler:2005:FMM

[KLY05]

Markus Klingler, Peter Leinen, and Harry Yserentant. The finite mass method on domains with boundary. *SIAM Journal on Scientific Computing*, 26(5):1744–1759, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42048>.

Klingler:2007:RPF

[KLY07]

Markus Klingler, Peter Leinen, and Harry Yserentant. A restart procedure for the finite mass method. *SIAM Journal on Scientific Computing*, 30(1):117–133, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kormann:2019:SII

[KLY19]

Katharina Kormann, Caroline Lasser, and Anna Yurova. Stable interpolation with isotropic and anisotropic Gaussians using Hermite generating function. *SIAM Journal on Scientific Computing*, 41(6):A3839–A3859, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [KLZ⁺06] **Kovvali:2006:RPP**
 Narayan Kovvali, Wenbin Lin, Zhiqin Zhao, Luise Couchman, and Lawrence Carin. Rapid prolate pseudospectral differentiation and interpolation with the fast multipole method. *SIAM Journal on Scientific Computing*, 28(2):485–497, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63596.html.
- [KLZ22] **Klibanov:2022:GCN**
 Michael V. Klibanov, Jingzhi Li, and Wenlong Zhang. A globally convergent numerical method for a 3D coefficient inverse problem for a wave-like equation. *SIAM Journal on Scientific Computing*, 44(5):A3341–A3365, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1457813>.
- [KM97] **Karlin:1997:TMA**
 Vladimir Karlin and Vladimir Maz'ya. Time-marching algorithms for nonlocal evolution equations based upon “approximate approximations”. *SIAM Journal on Scientific Computing*, 18(3):736–752, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-18/art_63596.html.
- [KM98] **Knoll:1998:ENI**
 D. A. Knoll and P. R. McHugh. Enhanced nonlinear iterative techniques applied to a nonequilibrium plasma flow. *SIAM Journal on Scientific Computing*, 19(1):291–301, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27022>.
- [KM05] **Kuznetsov:2005:NNF**
 Yu. A. Kuznetsov and H. G. E. Meijer. Numerical normal forms for codim 2 bifurcations of fixed points with at most two critical eigenvalues. *SIAM Journal on Scientific Computing*, 26(6):1932–1954, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60150>.
- [KM11] **Kallemov:2011:SOS**
 Bakytzhan Kallemov and Gregory H. Miller. A second-order strong method for the Langevin equations with holonomic constraints. *SIAM Journal on Scientific Computing*, 33(2):653–676, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

tronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i2/p653_s1.

Kunis:2012:SAB

[KM12]

Stefan Kunis and Ines Melzer. A stable and accurate butterfly sparse Fourier transform. *SIAM Journal on Numerical Analysis*, 50(3):1777–1800, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [Yin09] for original (but unstable) monomial basis algorithm.

Kocvara:2016:PDI

[KM16]

Michal Kocvara and Sudaba Mohammed. Primal-dual interior point multigrid method for topology optimization. *SIAM Journal on Scientific Computing*, 38(5):B685–B709, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kirby:2018:SCA

[KM18]

Robert C. Kirby and Lawrence Mitchell. Solver composition across the PDE/linear algebra barrier. *SIAM Journal on Scientific Computing*, 40(1):C76–C98, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Krull:2019:PTM

[KM19]

B. T. Krull and M. L. Minion. Parallel-in-time Magnus

integrators. *SIAM Journal on Scientific Computing*, 41(5):A2999–A3020, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ketcheson:2012:PAE

[KMA⁺12]

David I. Ketcheson, Kyle Mandli, Aron J. Ahmadi, Amal Alghamdi, Manuel Quezada de Luna, Matteo Parsani, Matthew G. Knepley, and Matthew Emmett. PyClaw: Accessible, extensible, scalable tools for wave propagation problems. *SIAM Journal on Scientific Computing*, 34(4):C210–C231, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kohl:2022:MPE

[KMER22]

Nils Kohl, Marcus Mohr, Sebastian Eibl, and Ulrich Rude. A massively parallel Eulerian–Lagrangian method for advection-dominated transport in viscous fluids. *SIAM Journal on Scientific Computing*, 44(3):C260–C285, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1402510>.

Kilmer:2001:QBP

[KMR01]

Misha Kilmer, Eric Miller, and Carey Rappaport. QMR-based projection techniques for the solution of non-

- Hermitian systems with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 23(3):761–780, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35554>. [KMS15]
- Kressner:2019:LRU**
- [KMR19] Daniel Kressner, Stefano Massei, and Leonardo Robol. Low-rank updates and a divide-and-conquer method for linear matrix equations. *SIAM Journal on Scientific Computing*, 41(2):A848–A876, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KMSM14]
- Kunkel:1997:NSP**
- [KMRW97] Peter Kunkel, Volker Mehrmann, Werner Rath, and Jörg Weickert. A new software package for linear differential-algebraic equations. *SIAM Journal on Scientific Computing*, 18(1):115–138, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28634>. Dedicated to C. William Gear on the occasion of his 60th birthday. [KMT98]
- Ketelsen:2015:LSF**
- C. Ketelsen, T. Manteuffel, and J. B. Schroder. Least-squares finite element discretization of the neutron transport equation in spherical geometry. *SIAM Journal on Scientific Computing*, 37(5):S71–S89, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Koza:2014:CMS**
- Zbigniew Koza, Maciej Matyka, Sebastian Szkoda, and Lukasz Mirosław. Compressed multi-row storage format for sparse matrices on graphics processing units. *SIAM Journal on Scientific Computing*, 36(2):C219–C239, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kelley:1998:TNC**
- C. T. Kelley, C. T. Miller, and M. D. Tocci. Termination of Newton/chord iterations and the method of lines. *SIAM Journal on Scientific Computing*, 19(1):280–290, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30358>.
- Kavvadias:1999:LCA**
- [KMV99] D. J. Kavvadias, F. S. Makri, and M. N. Vra-

- hatis. Locating and computing arbitrarily distributed zeros. *SIAM Journal on Scientific Computing*, 21(3):954–969, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33380>. [KN21]
- [KMV05] **Kavvadias:2005:ECM**
D. J. Kavvadias, F. S. Makri, and M. N. Vrahatis. Efficiently computing many roots of a function. *SIAM Journal on Scientific Computing*, 27(1):93–107, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40653>.
- [KMW99] **Khoromskij:1999:FFE**
B. N. Khoromskij, G. E. Mazurkevich, and G. Wittum. Frequency filtering for elliptic interface problems with Lagrange multipliers. *SIAM Journal on Scientific Computing*, 21(2):421–440, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28983>. [KNN12]
- [KMW15] **Kapita:2015:RBA**
Shelvean Kapita, Peter Monk, and Timothy Warburton. Residual-based adaptivity and PWDG methods for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 37(3):A1525–A1553, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kashi:2021:AIB**
- Aditya Kashi and Sivakumaran Nadarajah. An asynchronous incomplete block LU preconditioner for computational fluid dynamics on unstructured grids. *SIAM Journal on Scientific Computing*, 43(1):C1–C30, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Knapek:1998:MDM**
- [Kna98] S. Knapek. Matrix-dependent multigrid homogenization for diffusion problems. *SIAM Journal on Scientific Computing*, 20(2):515–533, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30484>. **Kaneko:2012:WCM**
- Hideaki Kaneko, Khomsan Neamprem, and Boriboon Novaprateep. Wavelet collocation method and multi-level augmentation method for Hammerstein equations. *SIAM Journal on Scientific Computing*, 34(1):A309–A338, 2012. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA309_s1 [KNV⁺16]
- [KNP01] Alexander Kurganov, Sebastian Noelle, and Guer-gana Petrova. Semidiscrete central-upwind schemes for hyperbolic conservation laws and Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 23(3): 707–740, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37341>.
- [Knu96] Patrick M. Knupp. Jacobian-weighted elliptic grid generation. *SIAM Journal on Scientific Computing*, 17(6): 1475–1490, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27856>.
- [Knu01] Patrick M. Knupp. Algebraic mesh quality metrics. *SIAM Journal on Scientific Computing*, 23(1):193–218, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37149>.
- [Kny01] Andrew V. Knyazev. Toward the optimal preconditioned eigensolver: Locally optimal block preconditioned conjugate gradient method. *SIAM Journal on Scientific Computing*, 23(2):517–541, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36612>.
- [KO99] Misha E. Kilmer and Dianne P. O’Leary. Pivoted Cauchy-like preconditioners for regularized solution of ill-posed problems. *SIAM Journal on Scientific Computing*, 21(1):88–110, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kurganov:2001:SCU**Kuchta:2016:PSP****Knyazev:2001:TOP****Knupp:1996:JWE****Knupp:2001:AMQ****Kilmer:1999:PCL**

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30897>. [KO19]
- [KO05] Yoshihiro Kanno and Makoto Ohsaki. Contact analysis of cable networks by using second-order cone programming. *SIAM Journal on Scientific Computing*, 27(6):2032–2052, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_43194.html.
- [KO13] Florian Kummer and Martin Oberlack. An extension of the discontinuous Galerkin method for the singular Poisson equation. *SIAM Journal on Scientific Computing*, 35(2):A603–A622, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KO17] Matthias Kirchhart and Shinosuke Obi. A smooth partition of unity finite element method for vortex particle regularization. *SIAM Journal on Scientific Computing*, 39(5):A2345–A2364, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KOB20] Yermek Kapushev, Ivan Osleedets, and Evgeny Burnaev. Tensor completion via Gaussian Process–Based initialization. *SIAM Journal on Scientific Computing*, 42(6):A3812–A3824, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kof04] Ernesto Kofman. Discrete event simulation of hybrid systems. *SIAM Journal on Scientific Computing*, 25(5):1771–1797, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41837>.
- [Kog22] Kazuki Koga. Numerical reparametrization of periodic planar curves via curvature interpolation. *SIAM Journal on Scientific Computing*, 44(3):A1703–A1722, 2022.
- [Kwoc:2019:SWR] Felix Kwok and Benjamin W. Ong. Schwarz waveform relaxation with adaptive pipelining. *SIAM Journal on Scientific Computing*, 41(1):A339–A364, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kanno:2005:CAC]
- [Kummer:2013:EDG]
- [Kirchhart:2017:SPU]
- [Kwoc:2019:SWR]
- [Kapushev:2020:TCG]
- [Kofman:2004:DES]
- [Koga:2022:NRP]

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M145197X>.
- [Kol99] **Kolibal:1999:ICD**
Joseph Kolibal. Importance of convection and damping on rates of convergence for the Lax–Wendroff method. *SIAM Journal on Scientific Computing*, 20(4):1513–1529, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30826>.
- [Kon21] **Konschin:2021:NSE**
Alexander Konschin. Numerical scheme for electromagnetic scattering on perturbed periodic inhomogeneous media and reconstruction of the perturbation. *SIAM Journal on Scientific Computing*, 43(3):B712–B732, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kor93] **Kortanek:1993:VSE**
K. O. Kortanek. Vector-supercomputer experiments with the primal affine linear programming scaling algorithm. *SIAM Journal on Scientific Computing*, 14(2):279–294, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kor15] **Kormann:2015:SLV**
Katharina Kormann. A semi-Lagrangian Vlasov solver in tensor train format. *SIAM Journal on Scientific Computing*, 37(4):B613–B632, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kös07] **Koster:2007:NSA**
Daniel Köster. Numerical simulation of acoustic streaming on surface acoustic wave-driven biochips. *SIAM Journal on Scientific Computing*, 29(6):2352–2380, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KOSB16] **Kuntz:2016:BSA**
Juan Kuntz, Michela Ottobre, Guy-Bart Stan, and Mauricio Barahona. Bounding stationary averages of polynomial diffusions via semidefinite programming. *SIAM Journal on Scientific Computing*, 38(6):A3891–A3920, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kou09] **Koutsourelakis:2009:AUQ**
Phaedon-Stelios Koutsourelakis. Accurate uncertainty quantification using inaccurate computational models.

- SIAM Journal on Scientific Computing*, 31(5):3274–3300, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KOV15] Igor N. Konshin, Maxim A. Olshanskii, and Yuri V. Vassilevski. ILU preconditioners for nonsymmetric saddle-point matrices with application to the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 37(5):A2171–A2197, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP05] Heinz-Otto Kreiss and N. Anders Petersson. A second order accurate embedded boundary method for the wave equation with Dirichlet data. *SIAM Journal on Scientific Computing*, 27(4):1141–1167, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60472.html.
- [KP06a] Yongsam Kim and Charles S. Peskin. 2-D parachute simulation by the immersed boundary method. *SIAM Journal on Scientific Computing*, 28(6):2294–2312, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP06b] Heinz-Otto Kreiss and N. Anders Petersson. An embedded boundary method for the wave equation with discontinuous coefficients. *SIAM Journal on Scientific Computing*, 28(6):2054–2074, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP07] Stefan Kunis and Daniel Potts. Stability results for scattered data interpolation by trigonometric polynomials. *SIAM Journal on Scientific Computing*, 29(4):1403–1419, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP09a] Ramji Kamakoti and Carlos Pantano. High-order narrow stencil finite-difference approximations of second-order derivatives involving variable coefficients. *SIAM Journal on Scientific Computing*, 31(6):4222–4243, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP09b] Alexander Kurganov and Guergana Petrova. Central-

Konshin:2015:IPN**Kreiss:2006:EBM****Kunis:2007:SRS****Kreiss:2005:SOA****Kamakoti:2009:HON****Kim:2006:DPS****Kurganov:2009:CUS**

- upwind schemes for two-layer shallow water equations. *SIAM Journal on Scientific Computing*, 31(3):1742–1773, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP10] **Knezevic:2010:CRB** [KP12b] David J. Knezevic and Anthony T. Patera. A certified reduced basis method for the Fokker–Planck equation of dilute polymeric fluids: FENE dumbbells in extensional flow. *SIAM Journal on Scientific Computing*, 32(2):793–817, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KP11] **Kim:2011:FNM** [KP17] Jingu Kim and Haesun Park. Fast nonnegative matrix factorization: An active-set-like method and comparisons. *SIAM Journal on Scientific Computing*, 33(6):3261–3281, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjocce3/v33/i6/p3261_s1
- [KP12a] **Kaufman:2012:GNI** [KP21] Danny M. Kaufman and Dinesh K. Pai. Geometric numerical integration of inequality constrained, non-smooth Hamiltonian systems. *SIAM Journal on Scientific Computing*, 34(5):A2670–A2703, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kissmann:2012:SFV** [KP12b] R. Kissmann and J. Po-moell. A semidiscrete finite volume constrained transport method on orthogonal curvilinear grids. *SIAM Journal on Scientific Computing*, 34(2):A763–A791, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kressner:2017:RHP** [KP17] Daniel Kressner and Lana Perisa. Recompression of Hadamard products of tensors in Tucker format. *SIAM Journal on Scientific Computing*, 39(5):A1879–A1902, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Khan:2021:PRS** [KP21] Arbaz Khan and Catherine E. Powell. Parameter-robust stochastic Galerkin mixed approximation for linear poroelasticity with uncertain inputs. *SIAM Journal on Scientific Computing*, 43(4):B855–B883, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [KP22] **Kolev:2022:CAS**
 Tzanio Kolev and Will Pazner. Conservative and accurate solution transfer between high-order and low-order refined finite element spaces. *SIAM Journal on Scientific Computing*, 44(1):A1–A27, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1403916>.
- [KPÇA12] **Kayaaslan:2012:PHS**
 Enver Kayaaslan, Ali Pinar, Ümit Çatalyürek, and Cevdet Aykanat. Partitioning hypergraphs in scientific computing applications through vertex separators on graphs. *SIAM Journal on Scientific Computing*, 34(2):A970–A992, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPL13] **Ketcheson:2013:HOW**
 David I. Ketcheson, Matteo Parsani, and Randall J. LeVeque. High-order wave propagation algorithms for hyperbolic systems. *SIAM Journal on Scientific Computing*, 35(1):A351–A377, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPP07] **Kurganov:2007:ASC**
 Alexander Kurganov, Gue-
- gana Petrova, and Bojan Popov. Adaptive semidiscrete central-upwind schemes for nonconvex hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 29(6):2381–2401, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPP+14] **Kolda:2014:CTM**
 Tamara G. Kolda, Ali Pinar, Todd Plantenga, C. Seshadhri, and Christine Task. Counting triangles in massive graphs with MapReduce. *SIAM Journal on Scientific Computing*, 36(5):S48–S77, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPP+16] **Khan:2016:EAA**
 Arif Khan, Alex Pothén, Md. Mostofa Ali Patwary, Nadathur Rajagopalan Satish, Narayanan Sundaram, Fredrik Manne, Mahantesh Halappanavar, and Pradeep Dubey. Efficient approximation algorithms for weighted b -matching. *SIAM Journal on Scientific Computing*, 38(5):S593–S619, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPPS14] **Kolda:2014:SGG**
 Tamara G. Kolda, Ali Pinar, Todd Plantenga, and C. Seshadhri. A scalable generative

- graph model with community structure. *SIAM Journal on Scientific Computing*, 36(5): C424–C452, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPS19a] Arbaz Khan, Catherine E. Powell, and David J. Silvester. Robust preconditioning for stochastic Galerkin formulations of parameter-dependent nearly incompressible elasticity equations. *SIAM Journal on Scientific Computing*, 41(1):A402–A421, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPS19b] C. Klingenberg, G. Puppo, and M. Semplice. Arbitrary order finite volume well-balanced schemes for the Euler equations with gravity. *SIAM Journal on Scientific Computing*, 41(2):A695–A721, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPT16] James Kestyn, Eric Polizzi, and Ping Tak Peter Tang. Feast eigensolver for non-Hermitian problems. *SIAM Journal on Scientific Computing*, 38(5):S772–S799, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPU21] **Krumnow:2021:CEL**
Christian Krumnow, Max Pfeiffer, and André Uschmajew. Computing eigenspaces with low rank constraints. *SIAM Journal on Scientific Computing*, 43(1):A586–A608, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KPW17] **Kurganov:2017:SOF**
Alexander Kurganov, Martina Prugger, and Tong Wu. Second-order fully discrete central-upwind scheme for two-dimensional hyperbolic systems of conservation laws. *SIAM Journal on Scientific Computing*, 39(3):A947–A965, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KQW04] **Kunik:2004:BTF**
Matthias Kunik, Shamsul Qamar, and Gerald Warnecke. A BGK-type flux-vector splitting scheme for the ultrarelativistic Euler equations. *SIAM Journal on Scientific Computing*, 26(1):196–223, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/42220.

Knoll:1999:MPN

[KR99]

D. A. Knoll and W. J. Rider. A multigrid preconditioned Newton–Krylov method. *SIAM Journal on Scientific Computing*, 21(2):691–710, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33270>.

Knupp:2000:FVG

[KR00]

Patrick M. Knupp and Nicolas Robidoux. A framework for variational grid generation: Conditioning the Jacobian matrix with matrix norms. *SIAM Journal on Scientific Computing*, 21(6):2029–2047, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34163>.

Klawonn:2006:PID

[KR06]

Axel Klawonn and Oliver Rheinbach. A parallel implementation of dual-primal FETI methods for three-dimensional linear elasticity using a transformation of basis. *SIAM Journal on Scientific Computing*, 28(5):1886–1906, January 2006. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Klein:2011:FOT

[KR11]

C. Klein and K. Roidot. Fourth order time-stepping for Kadomtsev–Petviashvili and Davey–Stewartson equations. *SIAM Journal on Scientific Computing*, 33(6):3333–3356, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3333_s1.

Klawonn:2012:DPP

[KR12a]

Axel Klawonn and Oliver Rheinbach. Deflation, projector preconditioning, and balancing in iterative substructuring methods: Connections and new results. *SIAM Journal on Scientific Computing*, 34(1):A459–A484, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kushnir:2012:HAS

[KR12b]

Dan Kushnir and Vladimir Rokhlin. A highly accurate solver for stiff ordinary differential equations. *SIAM Journal on Scientific Computing*, 34(3):A1296–A1315, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [KR14] **Kanschat:2014:RMP**
 G. Kanschat and J.-C. Ragusa. A robust multigrid preconditioner for S_N DG approximation of monochromatic, isotropic radiation transport problems. *SIAM Journal on Scientific Computing*, 36(5):A2326–A2345, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KR17] **Kandolf:2017:BKM**
 Peter Kandolf and Samuel D. Relton. A block Krylov method to compute the action of the Fréchet derivative of a matrix function on a vector with applications to condition number estimation. *SIAM Journal on Scientific Computing*, 39(4):A1416–A1434, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KR18] **Kahl:2018:LAR**
 Karsten Kahl and Matthias Rottmann. Least angle regression coarsening in bootstrap algebraic multigrid. *SIAM Journal on Scientific Computing*, 40(6):A3928–A3954, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KR21] **Kirchhart:2021:DPS**
 Matthias Kirchhart and Christian Rieger. Discrete projections: a step towards particle methods on bounded domains without remeshing. *SIAM Journal on Scientific Computing*, 43(1):A609–A635, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KR22] **Kohl:2022:TEM**
 Nils Kohl and Ulrich Rüde. Textbook efficiency: Massively parallel matrix-free multigrid for the Stokes system. *SIAM Journal on Scientific Computing*, 44(2):C124–C155, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1376005>.
- [KR23] **Keil:2023:OET**
 Tim Keil and Stephan Rave. An online efficient two-scale reduced basis approach for the localized orthogonal decomposition. *SIAM Journal on Scientific Computing*, 45(4):A1491–A1518, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1460016>.
- [Kra08] **Kraus:2008:AMB**
 J. K. Kraus. Algebraic multigrid based on computational molecules, 2: Linear elasticity problems. *SIAM Journal*

- on *Scientific Computing*, 30 (1):505–524, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KRG019]
- Krause:2009:NMM**
- [Kra09] Rolf Krause. A nonsmooth multiscale method for solving frictional two-body contact problems in 2D and 3D with multigrid efficiency. *SIAM Journal on Scientific Computing*, 31(2):1399–1423, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KRR23]
- Kraus:2012:ASC**
- [Kra12] Johannes Kraus. Additive Schur complement approximation and application to multilevel preconditioning. *SIAM Journal on Scientific Computing*, 34(6):A2872–A2895, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- König:2018:MFA**
- [KRD18] Lars König, Jan Rühaak, Alexander Derksen, and Jan Lellmann. A matrix-free approach to parallel and memory-efficient deformable image registration. *SIAM Journal on Scientific Computing*, 40(3):B858–B888, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kumar:2019:LFA**
- Prashant Kumar, Carmen Rodrigo, Francisco J. Gaspar, and Cornelis W. Oosterlee. On local Fourier analysis of multigrid methods for PDEs with jumping and random coefficients. *SIAM Journal on Scientific Computing*, 41(3):A1385–A1413, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Khasi:2023:FCA**
- Manoochehr Khasi, Jalil Rashidinia, and Mohammad Navaz Rasoulizadeh. Fast computing approaches based on a bilinear pseudo-spectral method for nonlinear acoustic wave equations. *SIAM Journal on Scientific Computing*, 45(4):B413–B439, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1506390>.
- Kulchytska-Ruchka:2021:EPT**
- [KRS21] Iryna Kulchytska-Ruchka and Sebastian Schöps. Efficient parallel-in-time solution of time-periodic problems using a multiharmonic coarse grid correction. *SIAM Journal on Scientific Computing*, 43(1):C61–C88, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [KRT16] **Kopal:2016:FAI**
 Jirí Kopal, Miroslav Rozložník, and Miroslav Tuma. Factorized approximate inverses with adaptive dropping. *SIAM Journal on Scientific Computing*, 38(3):A1807–A1820, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KRT21] **Kouri:2021:KPP**
 Drew P. Kouri, Denis Ridzal, and Ray Tuminaro. KKT preconditioners for PDE-Constrained optimization with the Helmholtz equation. *SIAM Journal on Scientific Computing*, 43(5):S225–S248, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KRW20] **Kessler:2020:VPS**
 Torsten Keßler, Sergej Rjasanow, and Steffen Weißer. Vlasov–Poisson system tackled by particle simulation utilizing boundary element methods. *SIAM Journal on Scientific Computing*, 42(1):B299–B326, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Krz01] **Krzyzanowski:2001:BNP**
 Piotr Krzyzanowski. On block preconditioners for nonsymmetric saddle point problems. *SIAM Journal on Scientific Computing*, 23(1):157–169, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36040>.
- [KS94] **Kelley:1994:MAC**
 C. T. Kelley and E. W. Sachs. Multilevel algorithms for constrained compact fixed point problems. *SIAM Journal on Scientific Computing*, 15(3):645–667, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [KS99] **Kay:1999:PEE**
 David Kay and David Silvester. A posteriori error estimation for stabilized mixed approximations of the Stokes equations. *SIAM Journal on Scientific Computing*, 21(4):1321–1336, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33371>.
- [KS07] **Kirby:2007:GOE**
 Robert C. Kirby and L. Ridgway Scott. Geometric optimization of the evaluation of finite element matrices. *SIAM Journal on Scientific Computing*, 29(2):827–841,

???? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KS15a]

Khoromskij:2011:TSG

[KS11]

Boris N. Khoromskij and Christoph Schwab. Tensor-structured Galerkin approximation of parametric and stochastic elliptic PDEs. *SIAM Journal on Scientific Computing*, 33(1):364–385, ????. 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p364_s1.

[KS15b]

Kolahdouz:2013:SIG

[KS13]

Ebrahim M. Kolahdouz and David Salac. A semi-implicit gradient augmented level set method. *SIAM Journal on Scientific Computing*, 35(1):A231–A254, ????. 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KS17]

Kruse:2014:TDH

[KS14]

Carola Kruse and Simon Shaw. Time-decoupled high order continuous space–time finite element schemes for the heat equation. *SIAM Journal on Scientific Computing*, 36(1):B1–B13, ????. 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[KS18]

Kolahdouz:2015:ETD

Ebrahim M. Kolahdouz and David Salac. Electrohydrodynamics of three-dimensional vesicles: a numerical approach. *SIAM Journal on Scientific Computing*, 37(3):B473–B494, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kou:2015:NMM

Jisheng Kou and Shuyu Sun. Numerical methods for a multicomponent two-phase interface model with geometric mean influence parameters. *SIAM Journal on Scientific Computing*, 37(4):B543–B569, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kloeden:2017:GQM

Peter Kloeden and Tony Shardlow. Gauss-quadrature method for one-dimensional mean-field SDEs. *SIAM Journal on Scientific Computing*, 39(6):A2784–A2807, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Karvonen:2018:FSK

Toni Karvonen and Simo Särkkä. Fully symmetric kernel quadrature. *SIAM Journal on Scientific Computing*, 40(2):A697–A720, ????. 2018.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Khan:2011:SAL**
- [KS19] Gerhard Kitzler and Joachim Schöberl. A polynomial spectral method for the spatially homogeneous Boltzmann equation. *SIAM Journal on Scientific Computing*, 41(1):B27–B49, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kitzler:2019:PSM**
- [KS20] Gerhard Kirsten and Valeria Simoncini. Order reduction methods for solving large-scale differential matrix Riccati equations. *SIAM Journal on Scientific Computing*, 42(4):A2182–A2205, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Kirsten:2020:ORM**
- [KS23] Christoph Klein and Robert Strzodka. Preconditioning sparse matrices with alternating and multiplicative operator splittings. *SIAM Journal on Scientific Computing*, 45(1):A25–A48, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430492>. **Klein:2023:PSM**
- [KSB11] Kamil A. Khan, Vibhu P. Saxena, and Paul I. Barton. Sensitivity analysis of limit-cycle oscillating hybrid systems. *SIAM Journal on Scientific Computing*, 33(4):1475–1504, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i4/p1475_s1. **Kim:2010:TBC**
- [KSD10] Dongmin Kim, Suvrit Sra, and Inderjit S. Dhillon. Tackling box-constrained optimization via a new projected quasi-Newton approach. *SIAM Journal on Scientific Computing*, 32(6):3548–3563, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v32/i6/p3548_s1. **Khodayari-Samghabadi:2018:IMD**
- [KSMM18] Samaneh Khodayari-Samghabadi and Sayed Hodjatollah Momeni-Masuleh. Implicit-modal discontinuous Galerkin scheme for two-phase flow with discontinuous capillary pressure. *SIAM Journal on Scientific Computing*, 40(4):B1131–B1160, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [KSU14] **Kressner:2014:LRT**
Daniel Kressner, Michael Steinlechner, and André Uschmajew. Low-rank tensor methods with subspace correction for symmetric eigenvalue problems. *SIAM Journal on Scientific Computing*, 36(5):A2346–A2368, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KSV16] **Kressner:2016:PLR**
Daniel Kressner, Michael Steinlechner, and Bart Vandereycken. Preconditioned low-rank Riemannian optimization for linear systems with tensor product structure. *SIAM Journal on Scientific Computing*, 38(4):A2018–A2044, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KSW20] **Kou:2020:NEF**
Jisheng Kou, Shuyu Sun, and Xiuhua Wang. A novel energy factorization approach for the diffuse-interface model with Peng–Robinson equation of state. *SIAM Journal on Scientific Computing*, 42(1):B30–B56, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KT05] **Kassam:2005:FOT**
Aly-Khan Kassam and Lloyd N. Trefethen. Fourth-order time-stepping for stiff PDEs. *SIAM Journal on Scientific Computing*, 26(4):1214–1233, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41063>.
- [KT08] **Kraus:2008:MPT**
Johannes K. Kraus and Satyendra K. Tomar. Multi-level preconditioning of two-dimensional elliptic problems discretized by a class of discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 30(2):684–706, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KT15] **Karlsson:2015:AHT**
Lars Karlsson and Françoise Tisseur. Algorithms for Hessenberg-triangular reduction of Fiedler linearization of matrix polynomials. *SIAM Journal on Scientific Computing*, 37(3):C384–C414, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KT17] **Kuang:2017:POT**
Max Kuang and Esteban G. Tabak. Preconditioning of optimal transport. *SIAM Journal on Scientific Computing*, 39(4):A1793–A1810,

- ???? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kue12]
- [KTB14] **Kempthorne:2014:CTR**
Daryl M. Kempthorne, Ian W. Turner, and John A. Belward. A comparison of techniques for the reconstruction of leaf surfaces from scanned data. *SIAM Journal on Scientific Computing*, 36(6):B969–B988, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kul12]
- [KTSB19] **Kuntz:2019:ETF**
Juan Kuntz, Philipp Thomas, Guy-Bart Stan, and Mauricio Barahona. The exit time finite state projection scheme: Bounding exit distributions and occupation measures of continuous-time Markov chains. *SIAM Journal on Scientific Computing*, 41(2):A748–A769, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kup98]
- [KU18] **Kaya:2018:PCP**
Oguz Kaya and Bora Uçar. Parallel Candecomp/Parafac decomposition of sparse tensors using dimension trees. *SIAM Journal on Scientific Computing*, 40(1):C99–C130, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kup00]
- Kuehn:2012:DCS**
Christian Kuehn. Deterministic continuation of stochastic metastable equilibria via Lyapunov equations and ellipsoids. *SIAM Journal on Scientific Computing*, 34(3):A1635–A1658, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kulikov:2012:GEC]
- G. Yu. Kulikov. Global error control in adaptive Nordsieck methods. *SIAM Journal on Scientific Computing*, 34(2):A839–A860, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Kupferman:1998:NSA]
- Raz Kupferman. A numerical study of the axisymmetric Couette–Taylor problem using a fast high-resolution second-order central scheme. *SIAM Journal on Scientific Computing*, 20(3):858–877, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31800>. [Kuprat:2000:MME]
- Andrew Kuprat. Modeling microstructure evolution using gradient-weighted moving finite elements. *SIAM Journal on Scientific Computing*,

22(2):535–560, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34837>.

Kupferman:2001:CDS

[Kup01]

Raz Kupferman. A central-difference scheme for a pure stream function formulation of incompressible viscous flow. *SIAM Journal on Scientific Computing*, 23(1):1–18, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37339>.

Kushner:1997:DDM

[Kus97]

Harold J. Kushner. Domain decomposition methods for large Markov chain control problems and nonlinear elliptic-type equations. *SIAM Journal on Scientific Computing*, 18(5):1494–1516, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27465>.

Kuske:2000:GPS

[Kus00]

R. Kuske. Gradient-particle solutions of Fokker-Planck equations for noisy delay bifurcations. *SIAM Journal on Scientific Computing*, 22(1):351–367, January 2000.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35033>.

Kavvadias:1996:LCA

[KV96]

Dimitris J. Kavvadias and Michael N. Vrahatis. Locating and computing all the simple roots and extrema of a function. *SIAM Journal on Scientific Computing*, 17(5):1232–1248, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26566>.

Kevlahan:2005:AWC

[KV05]

Nicholas K.-R. Kevlahan and Oleg V. Vasilyev. An adaptive wavelet collocation method for fluid-structure interaction at high Reynolds numbers. *SIAM Journal on Scientific Computing*, 26(6):1894–1915, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42850>.

Keiner:2012:NAN

[KV12a]

Jens Keiner and Antje Vollrath. A new algorithm for the nonequispaced fast Fourier transform on the rotation group. *SIAM Journal on Scientific Computing*, 34(5):A2599–A2624, 2012.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [KV20b]
- Kolev:2012:PAS**
- [KV12b] Tzanio V. Kolev and Panayot S. Vassilevski. Parallel auxiliary space AMG solver for $H(\text{div})$ problems. *SIAM Journal on Scientific Computing*, 34(6):A3079–A3098, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kuhlemann:2013:ICP** [KVMK01]
- [KV13] Verena Kuhlemann and Panayot S. Vassilevski. Improving the communication pattern in matrix-vector operations for large scale-free graphs by disaggregation. *SIAM Journal on Scientific Computing*, 35(5):S465–S486, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kalchev:2020:CCN**
- [KV20a] Delyan Z. Kalchev and Panayot Vassilevski. A condensed constrained nonconforming mortar-based approach for preconditioning finite element discretization problems. *SIAM Journal on Scientific Computing*, 42(5):A3136–A3156, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kalchev:2020:ASP**
- Delyan Z. Kalchev and Panayot S. Vassilevski. Auxiliary space preconditioning of finite element equations using a nonconforming interior penalty reformulation and static condensation. *SIAM Journal on Scientific Computing*, 42(3):A1741–A1764, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Knoll:2001:PNK**
- D. A. Knoll, W. B. VanderHeyden, V. A. Mousseau, and D. B. Kothe. On preconditioning Newton–Krylov methods in solidifying flow applications. *SIAM Journal on Scientific Computing*, 23(2):381–397, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37430>.
- Kalchev:2023:PEB**
- [KVV23] Delyan Z. Kalchev, Panayot S. Vassilevski, and Umberto Villa. Parallel element-based algebraic multigrid for $H(\text{curl})$ and $H(\text{div})$ problems using the ParELAG library. *SIAM Journal on Scientific Computing*, 45(3):S371–S400, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1433253>.

- [KW00] **Klawonn:2000:DDM**
Axel Klawonn and Olof B. Widlund. A domain decomposition method with Lagrange multipliers and inexact solvers for linear elasticity. *SIAM Journal on Scientific Computing*, 22(4):1199–1219, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35249>.
- [KW07] **Kay:2007:ENS**
David Kay and Richard Welford. Efficient numerical solution of Cahn–Hilliard–Navier–Stokes fluids in 2D. *SIAM Journal on Scientific Computing*, 29(6):2241–2257, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KW10a] **Kulikov:2010:VSI**
G. Yu. Kulikov and R. Weiner. Variable-stepsize interpolating explicit parallel peer methods with inherent global error control. *SIAM Journal on Scientific Computing*, 32(4):1695–1723, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KW10b] **Kumar:2010:NMP**
Jitendra Kumar and Gerald Warnecke. A note on moment preservation of finite volume schemes for solving growth and aggregation population balance equations. *SIAM Journal on Scientific Computing*, 32(2):703–713, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KW11] **Krasny:2011:FEM**
Robert Krasny and Lei Wang. Fast evaluation of multiquadric RBF sums by a Cartesian treecode. *SIAM Journal on Scientific Computing*, 33(5):2341–2355, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2341_s1.
- [KW15] **Kulikov:2015:SDI**
G. Yu. Kulikov and R. Weiner. A singly diagonally implicit two-step peer triple with global error control for stiff ordinary differential equations. *SIAM Journal on Scientific Computing*, 37(3):A1593–A1613, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KW16] **Kozdon:2016:SCN**
Jeremy E. Kozdon and Lucas C. Wilcox. Stable coupling of nonconforming, high-order finite difference methods. *SIAM Journal on Scientific Computing*, 38(2):A923–

A952, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kronbichler:2018:PCC

[KW18]

Martin Kronbichler and Wolfgang A. Wall. A performance comparison of continuous and discontinuous Galerkin methods with fast multigrid solvers. *SIAM Journal on Scientific Computing*, 40(5):A3423–A3448, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kwak:1999:CMC

[Kwa99]

Do Y. Kwak. *V*-cycle multigrid for cell-centered finite differences. *SIAM Journal on Scientific Computing*, 21(2):552–564, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32731>.

Kou:2022:ESM

[KWD22]

Jisheng Kou, Xiuhua Wang, and ShiGui Du. Energy stable and mass conservative numerical method for gas flow in porous media with rock compressibility. *SIAM Journal on Scientific Computing*, 44(4):B938–B963, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1444461>.

[//epubs.siam.org/doi/10.1137/21M1444461](https://epubs.siam.org/doi/10.1137/21M1444461).

Kong:2020:HPM

[KWG⁺20]

Fande Kong, Yaqi Wang, Derek R. Gaston, Cody J. Permann, Andrew E. Slaughter, Alexander D. Lindsay, Mark D. DeHart, and Richard C. Martineau. A highly parallel multilevel Newton–Krylov–Schwarz method with subspace-based coarsening and partition-based balancing for the multigroup neutron transport equation on three-dimensional unstructured meshes. *SIAM Journal on Scientific Computing*, 42(5):C193–C220, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kumar:2013:RFR

[KWW13]

Kundan Kumar, Mary F. Wheeler, and Thomas Wick. Reactive flow and reaction-induced boundary movement in a thin channel. *SIAM Journal on Scientific Computing*, 35(6):B1235–B1266, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kelley:1996:GIO

[KX96]

C. T. Kelley and Z. Q. Xue. GMRES and integral operators. *SIAM Journal on Scientific Computing*, 17(1):217–226, January 1996. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Kalantzis:2021:FRN

[KXH21]

Vassilis Kalantzis, Yuanzhe Xi, and Lior Horesh. Fast randomized non-Hermitian eigensolvers based on rational filtering and matrix partitioning. *SIAM Journal on Scientific Computing*, 43(5):S791–S815, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kalantzis:2018:BAM

[KXS18]

Vassilis Kalantzis, Yuanzhe Xi, and Yousef Saad. Beyond automated multilevel substructuring: Domain decomposition with rational filtering. *SIAM Journal on Scientific Computing*, 40(4):C477–C502, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Kimmel:2003:AMA

[KY03]

Ron Kimmel and Irad Yavneh. An algebraic multigrid approach for image analysis. *SIAM Journal on Scientific Computing*, 24(4):1218–1231, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL [http://](http://epubs.siam.org/sam-bin/dbq/article/38922)

epubs.siam.org/sam-bin/dbq/article/38922.

Koren:2005:AMR

[KY05]

Yair Koren and Irad Yavneh. Adaptive multiscale redistribution for vector quantization. *SIAM Journal on Scientific Computing*, 27(5):1573–1593, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60776.html.

Kolda:2014:SST

[KY14]

Tamara G. Kolda and Irad Yavneh. Special section on two themes: Planet Earth and big data. *SIAM Journal on Scientific Computing*, 36(5):S1–S2, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Khoo:2019:CRA

[KY19a]

Yuehaw Khoo and Lexing Ying. Convex relaxation approaches for strictly correlated density functional theory. *SIAM Journal on Scientific Computing*, 41(4):B773–B795, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Khoo:2019:SNN

[KY19b]

Yuehaw Khoo and Lexing Ying. SwitchNet: a neural network model for forward and inverse scattering

- problems. *SIAM Journal on Scientific Computing*, 41(5): A3182–A3201, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Kye12] **Kyei:2012:STF** Yaw Kyei. Space–time finite volume differencing framework for effective higher-order accurate discretizations of parabolic equations. *SIAM Journal on Scientific Computing*, 34(3):A1406–A1431, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [KZ00] **Keung:2000:ELS** Yee Lo Keung and Jun Zou. An efficient linear solver for nonlinear parameter identification problems. *SIAM Journal on Scientific Computing*, 22(5): 1511–1526, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34674>.
- [KZ16] **Krause:2016:PAV** Rolf Krause and Patrick Zilian. A parallel approach to the variational transfer of discrete fields between arbitrarily distributed unstructured finite element meshes. *SIAM Journal on Scientific Computing*, 38(3):C307–C333, 2016. CO-
- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kharazmi:2017:PGS**
- [KZK17] Ehsan Kharazmi, Mohsen Zayernouri, and George Em Karniadakis. Petrov–Galerkin and spectral collocation methods for distributed order differential equations. *SIAM Journal on Scientific Computing*, 39(3):A1003–A1037, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Kim:2020:SDM**
- [KZP20] Dohyun Kim, Lina Zhao, and Eun-Jae Park. Staggered DG methods for the pseudostress-velocity formulation of the Stokes equations on general meshes. *SIAM Journal on Scientific Computing*, 42(4): A2537–A2560, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Labbe:2005:FCL**
- [Lab05] Stéphane Labbé. Fast computation for large magnetostatic systems adapted for micromagnetism. *SIAM Journal on Scientific Computing*, 26(6): 2160–2175, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60105>.

- [LAG14] **Lai:2014:FDS**
 Jun Lai, Sivaram Ambikasaran, and Leslie F. Greengard. A fast direct solver for high frequency scattering from a large cavity in two dimensions. *SIAM Journal on Scientific Computing*, 36(6):B887–B903, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lan97] **Lamour:1997:SMF**
 René Lamour. A shooting method for fully implicit index-2 differential algebraic equations. *SIAM Journal on Scientific Computing*, 18(1):94–114, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28727>. Dedicated to C. William Gear on the occasion of his 60th birthday.
- [Lan93] **Lang:1993:PAR**
 Bruno Lang. A parallel algorithm for reducing symmetric banded matrices to tridiagonal form. *SIAM Journal on Scientific Computing*, 14(6):1320–1338, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lan94] **Langtangen:1994:NSF**
 Hans Petter Langtangen. Numerical solution of first pas-
- sage problems in random vibrations. *SIAM Journal on Scientific Computing*, 15(4):977–996, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lan98] **Lang:1998:ULB**
 Bruno Lang. Using level 3 BLAS in rotation-based algorithms. *SIAM Journal on Scientific Computing*, 19(2):626–634, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28021>.
- [Lan10] **Langer:2010:IPT**
 Stefan Langer. Investigation of preconditioning techniques for the iteratively regularized Gauss–Newton method for exponentially ill-posed problems. *SIAM Journal on Scientific Computing*, 32(5):2543–2559, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lan12] **Langtangen:2012:SR**
 Hans Petter Langtangen. SISC redefined. *SIAM Journal on Scientific Computing*, 34(1):vii–viii, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pvii_s1.

- [Lan19] **Lang:2019:ERB** Bruno Lang. Efficient reduction of banded Hermitian positive definite generalized eigenvalue problems to banded standard eigenvalue problems. *SIAM Journal on Scientific Computing*, 41(1): C52–C72, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lay96]
- [Lar99] **Larsson:1999:DDM** Elisabeth Larsson. A domain decomposition method for the Helmholtz equation in a multilayer domain. *SIAM Journal on Scientific Computing*, 20(5): 1713–1731, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32532>. [Lay03]
- [Lau22] **Laurent:2022:UAS** Adrien Laurent. A uniformly accurate scheme for the numerical integration of penalized Langevin dynamics. *SIAM Journal on Scientific Computing*, 44(5): A3217–A3243, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1455188>. [LB06]
- Layton:1996:NSM** William J. Layton. A nonlinear, subgridscale model for incompressible viscous flow problems. *SIAM Journal on Scientific Computing*, 17(2):347–357, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26230>.
- Layton:2003:SLC** Anita T. Layton. A semi-Lagrangian collocation method for the shallow water equations on the sphere. *SIAM Journal on Scientific Computing*, 24(4):1433–1449, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39502>.
- Layton:2006:MWT** Anita T. Layton. Modeling water transport across elastic boundaries using an explicit jump method. *SIAM Journal on Scientific Computing*, 28(6):2189–2207, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Livshits:2006:APW** Irene Livshits and Achi Brandt. Accuracy properties of the wave-ray multigrid algorithm for Helmholtz

- equations. *SIAM Journal on Scientific Computing*, 28(4):1228–1251, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LB12]
- [LB07] Aaron Luttmann and John Bardsley. A variational approach to video segmentation for botanical data. *SIAM Journal on Scientific Computing*, 29(4):1550–1566, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See erratum [LB08].
- [LB15] Aaron Luttmann and John Bardsley. Erratum: a variational approach to video segmentation for botanical data. *SIAM Journal on Scientific Computing*, 30(1):548, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See [LB07]. [LBHH22]
- [LB08] Aaron Luttmann and John Bardsley. Erratum: a variational approach to video segmentation for botanical data. *SIAM Journal on Scientific Computing*, 30(1):548, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). See [LB07].
- [LB11] Oren E. Livne and Achi E. Brandt. MuT: The Multilevel Sinc Transform. *SIAM Journal on Scientific Computing*, 33(4):1726–1738, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resources/v33/i4/p1726_s1 [LB05a]
- [Livne:2012:LAM] Oren E. Livne and Achi Brandt. Lean Algebraic Multigrid (LAMG): Fast graph Laplacian linear solver. *SIAM Journal on Scientific Computing*, 34(4):B499–B522, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lima:2015:NSN] Pedro M. Lima and Evelyn Buckwar. Numerical solution of the neural field equation in the two-dimensional case. *SIAM Journal on Scientific Computing*, 37(6):B962–B979, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Liu:2022:NOR] Yingzhi Liu, Yassine Boubendir, Xiaoming He, and Yinnian He. New optimized Robin–Robin domain decomposition methods using Krylov solvers for the Stokes–Darcy system. *SIAM Journal on Scientific Computing*, 44(4):B1068–B1095, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1417223>.
- [Linardakis:2005:DDM] Leonidas Linardakis and Nikos Chrisochoides. De-

- launay decoupling method for parallel guaranteed quality planar mesh refinement. *SIAM Journal on Scientific Computing*, 27(4):1394–1423, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60281.html.
- [LC05b] D. J. B. Lloyd and A. R. Champneys. Efficient numerical continuation and stability analysis of spatiotemporal quadratic optical solitons. *SIAM Journal on Scientific Computing*, 27(3):759–773, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60445>.
- [LC08] Leonidas Linardakis and Nikos Chrisochoides. Graded Delaunay decoupling method for parallel guaranteed quality planar mesh generation. *SIAM Journal on Scientific Computing*, 30(4):1875–1891, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LC21] Wei Liu and Yongyong Cai. Normalized gradient flow with Lagrange multiplier for computing ground states of Bose–Einstein condensates. *SIAM Journal on Scientific Computing*, 43(1):B219–B242, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LC23] Li Luo and Xiao-Chuan Cai. PINL: Preconditioned inexact Newton with learning capability for nonlinear system of equations. *SIAM Journal on Scientific Computing*, 45(2):A849–A871, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1507942>.
- [LCA08] M. C. Lee, Raymond K. W. Chan, and Don A. Adjeroh. Fast three-dimensional discrete cosine transform. *SIAM Journal on Scientific Computing*, 30(6):3087–3107, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LCBD07] J. Langou, Z. Chen, G. Bosilca, and J. Dongarra. Recovery patterns for iterative methods in a parallel unstable environment. *SIAM Journal on Scientific Computing*, 30(1):102–116, ??? 2007. CODEN SJOCE3. ISSN 1064-

Lloyd:2005:ENC**Luo:2023:PPI****Linardakis:2008:GDD****Lee:2008:FTD****Liu:2021:NGF****Langou:2007:RPI**

- 8275 (print), 1095-7197 (electronic).
- [LCCVEKV17] Max la Cour Christensen, Umberto Villa, Allan P. Engsig-Karup, and Panayot S. Vassilevski. Numerical multilevel upscaling for incompressible flow in reservoir simulation: an element-based algebraic multigrid (AMGe) approach. *SIAM Journal on Scientific Computing*, 39(1): B102–B137, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LCE22] **Christensen:2017:NMU** Marta Lazzaretti, Luca Calatroni, and Claudio Estatico. Modular-proximal gradient algorithms in variable exponent Lebesgue spaces. *SIAM Journal on Scientific Computing*, 44(6):A3463–A3489, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1464336>.
- [LCD14] **Letourneau:2014:CFM** Pierre-David Létourneau, Cris Cecka, and Eric Darve. Cauchy fast multipole method for general analytic kernels. *SIAM Journal on Scientific Computing*, 36(2):A396–A426, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LCD18] **Leung:2018:PDE** Nat Chun-Ho Leung, Christina C. Christara, and Duy-Minh Dang. Partial differential equation pricing of contingent claims under stochastic correlation. *SIAM Journal on Scientific Computing*, 40(1): B1–B31, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LCG21] **Larios-Cardenas:2021:DLA** Luis Ángel Larios-Cárdenas and Frederic Gibou. A deep learning approach for the computation of curvature in the level-set method. *SIAM Journal on Scientific Computing*, 43(3):A1754–A1779, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LCH99] **Lord:1999:CHO** G. J. Lord, A. R. Champneys, and G. W. Hunt. Computation of homoclinic orbits in partial differential equations: An application to cylindrical shell buckling. *SIAM Journal on Scientific Computing*, 21(2):591–619, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32164>.

Landry:2009:SOC

- [LCH09] Chantal Landry, Alexandre Caboussat, and Ernst Hairer. Solving optimization-constrained differential equations with discontinuity points, with application to atmospheric chemistry. *SIAM Journal on Scientific Computing*, 31(5):3806–3826, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lorber:1996:ORI

- [LCJ96] Alfred A. Lorber, Graham F. Carey, and Wayne D. Joubert. ODE recursions and iterative solvers for linear equations. *SIAM Journal on Scientific Computing*, 17(1):65–77, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Liu:2020:MWE

- [LCJ⁺20] Xin Liu, Xi Chen, Shi Jin, Alexander Kurganov, Tong Wu, and Hui Yu. Moving-water equilibria preserving partial relaxation scheme for the Saint-Venant system. *SIAM Journal on Scientific Computing*, 42(4):A2206–A2229, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Luo:2021:NPS

- [LCK21] Li Luo, Xiao-Chuan Cai, and David E. Keyes. Nonlinear preconditioning strategies for two-phase flows in porous media discretized by a fully implicit discontinuous Galerkin method. *SIAM Journal on Scientific Computing*, 43(5):S317–S344, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2018:EQM

- [LCL18] Tiantian Liu, Minxin Chen, and Benzhuo Lu. Efficient and qualified mesh generation for Gaussian molecular surface using adaptive partition and piecewise polynomial approximation. *SIAM Journal on Scientific Computing*, 40(2):B507–B527, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Larsson:2014:IAC

- [LCN14] Lisa J. Larsson, Rustom Choksi, and Jean-Christophe Nave. An iterative algorithm for computing measures of generalized Voronoi regions. *SIAM Journal on Scientific Computing*, 36(2):A792–A827, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- Lee:2016:MCM**
- [LCR⁺16] J. Lee, A. Cookson, I. Roy, E. Kerfoot, L. Asner, G. Viguera, T. Sochi, S. Deparis, C. Michler, N. P. Smith, and D. A. Nordsletten. Multiphysics computational modeling in **CHearT**. *SIAM Journal on Scientific Computing*, 38(3): C150–C178, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LCW95]
- Lin:1995:MPM**
- San Yih Lin, Yan Shin Chin, and Tsuen Muh Wu. A modified penalty method for Stokes equations and its applications to Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 16(1): 1–19, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Luan:2020:NCH**
- [LCR20] Vu Thai Luan, Rujeko Chinomona, and Daniel R. Reynolds. A new class of high-order methods for multirate differential equations. *SIAM Journal on Scientific Computing*, 42(2): A1245–A1268, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LCY⁺20]
- Luan:2022:MER**
- [LCR22] Vu Thai Luan, Rujeko Chinomona, and Daniel R. Reynolds. Multirate exponential Rosenbrock methods. *SIAM Journal on Scientific Computing*, 44(5): A3265–A3289, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1439481>. [LD03]
- Lu:2003:QMR**
- James Lu and David L. Darmofal. A quasi-minimal residual method for simultaneous primal-dual solutions and superconvergent functional estimates. *SIAM Journal on Scientific Computing*, 24(5): 1693–1709, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39062>.

- [LD04] **Lu:2004:HDI** [Ld12] James Lu and David L. Darmofal. Higher-dimensional integration with Gaussian weight for applications in probabilistic design. *SIAM Journal on Scientific Computing*, 26(2):613–624, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42686>.
- [LD05] **Lombard:2005:ESI** [LD16] Bruno Lombard and Rosa Donat. The explicit simplified interface method for compressible multicomponent flows. *SIAM Journal on Scientific Computing*, 27(1):208–230, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60104>.
- [LD11] **Luo:2011:EPN** [LdGK20] Yuancheng Luo and Ramani Duraiswami. Efficient parallel nonnegative least squares on multicore architectures. *SIAM Journal on Scientific Computing*, 33(5):2848–2863, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i5/p2848_s1
- LaSpina:2012:HRF** Giuseppe La Spina and Mattia de’ Michieli Vitturi. High-resolution finite volume central schemes for a compressible two-phase model. *SIAM Journal on Scientific Computing*, 34(6):B861–B880, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Li:2016:TSF** Jiequan Li and Zhifang Du. A two-stage fourth order time-accurate discretization for Lax–Wendroff type flow solvers I. Hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 38(5):A3046–A3069, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Lebrat:2020:DOT** [LDM00] Léo Lebrat, Frédéric de Gournay, and Jonas Kahn. 3/4-discrete optimal transport. *SIAM Journal on Scientific Computing*, 42(4):A2088–A2107, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Llorente:2000:APS** Ignacio M. Llorente, Boris Diskin, and N. Duane Melson. Alternating plane smoothers for multiblock

grids. *SIAM Journal on Scientific Computing*, 22(1):218–242, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35736>.

LeRoux:2011:TDS

- [LDS11] Daniel Y. Le Roux, Michel Dieme, and Abdou Sene. Time discretization schemes for Poincaré waves in finite-element shallow-water models. *SIAM Journal on Scientific Computing*, 33(5):2217–2246, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2217_s1 [Le 09]

LeRoux:2001:NTF

- [Le 01] Daniel Y. Le Roux. A new triangular finite-element with optimum constraint ratio for compressible fluids. *SIAM Journal on Scientific Computing*, 23(1):66–80, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36740>. [LE10]

LeRoux:2005:DRA

- [Le 05] Daniel Y. Le Roux. Dispersion relation analysis of the $P_1^{NC}-P_1$ finite-element pair in shallow-water mod-

els. *SIAM Journal on Scientific Computing*, 27(2):394–414, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60243>.

LeBorne:2009:PNM

Sabine Le Borne. Preconditioned nullspace method for the two-dimensional Oseen problem. *SIAM Journal on Scientific Computing*, 31(4):2494–2509, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lamine:2010:HOM

Sadok Lamine and Michael G. Edwards. Higher order multidimensional upwind convection schemes for flow in porous media on structured and unstructured quadrilateral grids. *SIAM Journal on Scientific Computing*, 32(3):1119–1139, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2017:PLR

Kookjin Lee and Howard C. Elman. A preconditioned low-rank projection method with a rank-reduction scheme for stochastic partial differential equations. *SIAM Journal on Scientific Computing*, 39(5):S828–S850, 2017.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2009:GCM

[Lee09]

B. Lee. Guidance for choosing multigrid preconditioners for systems of elliptic partial differential equations. *SIAM Journal on Scientific Computing*, 31(4):2803–2831, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[Lee13a]

Lee:2010:NMM

[Lee10a]

B. Lee. A novel multigrid method for S_n discretizations of the mono-energetic Boltzmann transport equation in the optically thick and thin regimes with anisotropic scattering, Part I. *SIAM Journal on Scientific Computing*, 31(6):4744–4773, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[Lee13b]

Lee:2010:IMC

[Lee10b]

Barry Lee. Improved multiple-coarsening methods for S_n discretizations of the Boltzmann equation. *SIAM Journal on Scientific Computing*, 32(5):2497–2522, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[Lee14]

Lee:2012:MFD

[Lee12]

B. Lee. A multigrid framework for S_n discretizations

of the Boltzmann transport equation. *SIAM Journal on Scientific Computing*, 34(4):A2018–A2047, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2013:MSC

Che-Rung Lee. Minimal split checkerboard method for exponentiating sparse matrices and its applications in quantum statistical mechanics. *SIAM Journal on Scientific Computing*, 35(2):C143–C171, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2013:TDD

Jungho Lee. Two domain decomposition methods for auxiliary linear problems of a multibody elliptic variational inequality. *SIAM Journal on Scientific Computing*, 35(3):A1350–A1375, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2014:ARL

Hsueh-Chen Lee. An adaptively refined least-squares finite element method for generalized Newtonian fluid flows using the Carreau model. *SIAM Journal on Scientific Computing*, 36(1):A193–A218, ??? 2014. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Lee:2021:REK

[Lee21]

Yoonsang Lee. l_p regularization for ensemble Kalman inversion. *SIAM Journal on Scientific Computing*, 43(5): A3417–A3437, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lehrenfeld:2015:NXD

[Leh15]

Christoph Lehrenfeld. The Nitsche XFEM–DG space–time method and its implementation in three space dimensions. *SIAM Journal on Scientific Computing*, 37(1): A245–A270, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Leimkuhler:1993:EWR

[Lei93]

B. Leimkuhler. Estimating waveform relaxation convergence. *SIAM Journal on Scientific Computing*, 14(4): 872–889, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lemoine:2016:TDM

[Lem16]

Grady I. Lemoine. Three-dimensional mapped-grid finite volume modeling of poroelastic-fluid wave propagation. *SIAM Journal on Scientific Computing*, 38(5):

B808–B836, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2013:FHR

[LFB13]

Geunseop Lee, Haoying Fu, and Jesse L. Barlow. Fast high-resolution image reconstruction using Tikhonov regularization based total least squares. *SIAM Journal on Scientific Computing*, 35(1): B275–B290, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lord:2008:FAF

[LFBO08]

R. Lord, F. Fang, F. Bervoets, and C. W. Oosterlee. A fast and accurate FFT-based method for pricing early-exercise options under Lévy processes. *SIAM Journal on Scientific Computing*, 30(4): 1678–1705, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Laiu:2019:PAP

[LFH19]

M. Paul Laiu, Martin Frank, and Cory D. Hauck. A positive asymptotic-preserving scheme for linear kinetic transport equations. *SIAM Journal on Scientific Computing*, 41(3):A1500–A1526, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LFJS14] **Li:2014:WFB** Ming Li, Zhitao Fan, Hui Ji, and Zuowei Shen. Wavelet frame based algorithm for 3D reconstruction in electron microscopy. *SIAM Journal on Scientific Computing*, 36(1):B45–B69, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LFWP08] **Lim:2008:DCR** Sookkyung Lim, Anca Ferent, X. Sheldon Wang, and Charles S. Peskin. Dynamics of a closed rod with twist and bend in fluid. *SIAM Journal on Scientific Computing*, 31(1):273–302, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LFLS08] **Lopez-Fernandez:2008:AFO** María López-Fernández, Christian Lubich, and Achim Schädle. Adaptive, fast, and oblivious convolution in evolution equations with memory. *SIAM Journal on Scientific Computing*, 30(2):1015–1037, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LGM09] **Laakmann:2022:ALP** Fabian Laakmann, Patrick E. Farrell, and Lawrence Mitchell. An augmented Lagrangian preconditioner for the magnetohydrodynamics equations at high Reynolds and coupling numbers. *SIAM Journal on Scientific Computing*, 44(4):B1018–B1044, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416539>.
- [LGC⁺23] **Lee:1997:FAN** June-Yub Lee and Leslie Greengard. A fast adaptive numerical method for stiff two-point boundary value problems. *SIAM Journal on Scientific Computing*, 18(2):403–429, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27279>.
- [LGM09] **Li:2009:HOA** Jing-Rebecca Li and Leslie Greengard. High order accurate methods for the evaluation of layer heat potentials. *SIAM Journal on Scientific Computing*, 31(5):3847–3860, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LGC⁺23] **Liu:2023:CSS** Jin-Guo Liu, Xun Gao, Madelyn Cain, Mikhail D. Lukin, and Sheng-Tao Wang. Computing solution space

- properties of combinatorial optimization problems via generic tensor networks. [LGP14] *SIAM Journal on Scientific Computing*, 45(3):A1239–A1270, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1501787>.
- [LGCL21] Yang Liu, Pieter Ghysels, Lisa Claus, and Xiaoye Sherry Li. Sparse approximate multifrontal factorization with butterfly compression for high-frequency wave equations. *SIAM Journal on Scientific Computing*, 43(5):S367–S391, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Liu:2021:SAM] Liu:2021:SAM
- [LGR20] Thomas Ludescher, Sven Gross, and Arnold Reusken. A multigrid method for unfitted finite element discretizations of elliptic interface problems. *SIAM Journal on Scientific Computing*, 42(1):A318–A342, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ludescher:2020:MMU] Ludescher:2020:MMU
- [Liu:2019:HOP] Liu:2019:HOP
- [LGH⁺13] Daniel Lowell, Jeswin Godwin, Justin Holewinski, Deepan Karthik, Chekuri Choudary, Azamat Mametjanov, Boyana Norris, Gerald Sabin, P. Sadayappan, and Jason Sarich. Stencil-aware GPU optimization of iterative solvers. *SIAM Journal on Scientific Computing*, 35(5):S209–S228, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Lowell:2013:SAG] Lowell:2013:SAG
- [LGW19] Hailiang Liu, Robin Gröpler, and Gerald Warnecke. A high order positivity preserving DG method for coagulation-fragmentation equations. *SIAM Journal on Scientific Computing*, 41(3):B448–B465, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Liu:2023:ANP] Liu:2023:ANP
- [LGY⁺23] Haoya Li, Samarth Gupta, Hsiangfu Yu, Lexing Ying, and Inderjit Dhillon. Approximate Newton policy gradient algorithms. *SIAM Journal*
- [Li:2014:IDA] Shengguo Li, Ming Gu, and Beresford N. Parlett. An improved DQDS algorithm. *SIAM Journal on Scientific Computing*, 36(3):C290–C308, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- on *Scientific Computing*, 45(5):A2585–A2609, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1492088>.
Loh:2000:NLM
- [LH00] C. Y. Loh and W. H. Hui. A new Lagrangian method for time-dependent inviscid flow computation. *SIAM Journal on Scientific Computing*, 22(1):330–350, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33085>.
Lu:2019:THA
- [LH19] Wangtao Lu and Guanghui Hu. Time-harmonic acoustic scattering from a non-locally perturbed trapezoidal surface. *SIAM Journal on Scientific Computing*, 41(3):B522–B544, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Li:2011:DFE
- [LHL11] Jichun Li, Yunqing Huang, and Yanping Lin. Developing finite element methods for Maxwell’s equations in a Cole–Cole dispersive medium. *SIAM Journal on Scientific Computing*, 33(6):3153–3174, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3153_s1.
Lai:2012:FSI
- [LHL12] Ming-Chih Lai, Wei-Fan Hu, and Wen-Wei Lin. A fractional step immersed boundary method for Stokes flow with an inextensible interface enclosing a solid particle. *SIAM Journal on Scientific Computing*, 34(5):B692–B710, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Liu:2022:NEP
- [LHL⁺22] Lulu Liu, Feng-Nan Hwang, Li Luo, Xiao-Chuan Cai, and David E. Keyes. A nonlinear elimination preconditioned inexact Newton algorithm. *SIAM Journal on Scientific Computing*, 44(3):A1579–A1605, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416138>.
Li:1996:SPA
- [LHN96] Lei Li, Jie Hu, and Tadao Nakamura. A simple parallel algorithm for polynomial evaluation. *SIAM Journal on Scientific Computing*, 17(1):260–262, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

tronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994). [LI01]

Lipponen:2018:CMR

[LHR⁺18] A. Lipponen, J. M. J. Hut-
tunen, S. Romakkaniemi,
H. Kokkola, and V. Kolehmainen. ■
Correction of model reduc-
tion errors in simulations.
*SIAM Journal on Scien-
tific Computing*, 40(1):B305–
B327, 2018. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic). [Li03]

Li:1994:SAM

[Li94] Zi Cai Li. The Schwarz alter-
nating method for singularity
problems. *SIAM Journal on
Scientific Computing*, 15(5):
1064–1082, September 1994.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic).

Li:1999:MRA

[Li99] Ta-Hsin Li. Multiscale rep-
resentation and analysis of
spherical data by spheri-
cal wavelets. *SIAM Jour-
nal on Scientific Computing*,
21(3):924–953, May 1999.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic). URL [http://
epubs.siam.org/sam-bin/
dbq/article/34146](http://epubs.siam.org/sam-bin/dbq/article/34146). [Lie93]

Li:2001:MPP

Zhilin Li and Kazufumi Ito.
Maximum principle preserv-
ing schemes for interface
problems with discontinuous
coefficients. *SIAM Journal
on Scientific Computing*, 23
(1):339–361, January 2001.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic). URL [http://
epubs.siam.org/sam-bin/
dbq/article/37016](http://epubs.siam.org/sam-bin/dbq/article/37016).

Li:2003:NJB

Zhiping Li. Numerical jus-
tification of branched lam-
inated microstructure with
surface energy. *SIAM Jour-
nal on Scientific Computing*,
24(3):1054–1075, May 2003.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic). URL [http://
epubs.siam.org/sam-bin/
dbq/article/39677](http://epubs.siam.org/sam-bin/dbq/article/39677).

Li:2010:FTS

Jing-Rebecca Li. A fast time
stepping method for evaluat-
ing fractional integrals. *SIAM
Journal on Scientific Com-
puting*, 31(6):4696–4714, 2010.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-
7197 (electronic).

Lie:1993:UIO

Ivar Lie. Using implicit ODE
methods with iterative linear
equation solvers in spectral
methods. *SIAM Journal on*

Scientific Computing, 14(5): 1194–1213, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lin:2006:MTR

[Lin06]

JiGuan G. Lin. Modeling test responses by multivariable polynomials of higher degrees. *SIAM Journal on Scientific Computing*, 28(3): 832–867, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60395.html.

Ling:2016:FBG

[Lin16]

Leevan Ling. A fast block-greedy algorithm for quasi-optimal meshless trial subspace selection. *SIAM Journal on Scientific Computing*, 38(2):A1224–A1250, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:1993:MMD

[Liu93]

Jun Liu. A multiresolution method for distributed parameter estimation. *SIAM Journal on Scientific Computing*, 14(2):389–405, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:1996:WRE

[Liu96]

Jinn-Liang Liu. On weak residual error estimation.

SIAM Journal on Scientific Computing, 17(5):1249–1268, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24958>.

Liu:2020:WBA

[Liu20]

Xin Liu. A well-balanced asymptotic preserving scheme for the two-dimensional shallow water equations over irregular bottom topography. *SIAM Journal on Scientific Computing*, 42(5): B1136–B1172, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Livshits:2008:ODA

[Liv08]

I. Livshits. One-dimensional algorithm for finding eigenbasis of the Schrödinger operator. *SIAM Journal on Scientific Computing*, 30(1): 416–440, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Livshits:2015:MGA

[Liv15]

I. Livshits. Multiple Galerkin adaptive algebraic multigrid algorithm for the Helmholtz equations. *SIAM Journal on Scientific Computing*, 37(5): S195–S215, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LJ93] **Lichtenstein:1993:BCD**
 Woody Lichtenstein and S. Lennart Johnsson. Block-cyclic dense linear algebra. *SIAM Journal on Scientific Computing*, 14(6):1259–1288, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LJ95] **Liu:1995:QLR**
 Anwei Liu and Barry Joe. Quality local refinement of tetrahedral meshes based on bisection. *SIAM Journal on Scientific Computing*, 16(6):1269–1291, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LJ17] **Li:2017:NVS**
 Qiuqi Li and Lijian Jiang. A novel variable-separation method based on sparse and low rank representation for stochastic partial differential equations. *SIAM Journal on Scientific Computing*, 39(6):A2879–A2910, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LJ19] **Leng:2019:AOD**
 Wei Leng and Lili Ju. An additive overlapping domain decomposition method for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 41(2):A1252–A1277, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LJL98] **Liu:1998:AGM**
 Feng Liu, Shanhong Ji, and Guojun Liao. An adaptive grid method and its application to steady Euler flow calculations. *SIAM Journal on Scientific Computing*, 20(3):811–825, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30573>.
- [LJL09] **Lee:2009:SVP**
 Wanho Lee, Eunok Jung, and Sunmi Lee. Simulations of valveless pumping in an open elastic tube. *SIAM Journal on Scientific Computing*, 31(3):1901–1925, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LK93] **Lallemand:1993:IDC**
 Marie-Hélène Lallemand and Barry Koren. Iterative defect correction and multigrid accelerated explicit time stepping schemes for the steady Euler equations. *SIAM Journal on Scientific Computing*, 14(4):953–970, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LK98] **Luo:1998:PVF**
 Erding Luo and Heinz-Otto Kreiss. Pseudospectral vs. finite difference methods for initial value problems with discontinuous coefficient. *SIAM Journal on Scientific Computing*, 20(1):148–163, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30169>.
- [LK04] **Lucor:2004:AGP**
 D. Lucor and G. E. Karniadakis. Adaptive generalized polynomial chaos for nonlinear random oscillators. *SIAM Journal on Scientific Computing*, 26(2):720–735, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42798>.
- [LK15] **Liu:2015:FSP**
 Lulu Liu and David E. Keyes. Field-split preconditioned inexact Newton algorithms. *SIAM Journal on Scientific Computing*, 37(3):A1388–A1409, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LK21] **Liu:2021:AEB**
 Lulu Liu and David E. Keyes. Approximate error bounds on solutions of nonlinearly preconditioned PDEs. *SIAM Journal on Scientific Computing*, 43(4):A2526–A2554, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LKB18] **Llopis:2018:PFS**
 Francesc Pons Llopis, Nikolas Kantas, Alexandros Beskos, and Ajay Jasra. Particle filtering for stochastic Navier–Stokes signal observed with linear additive noise. *SIAM Journal on Scientific Computing*, 40(3):A1544–A1565, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LKK18] **Liu:2018:NAN**
 Lulu Liu, David E. Keyes, and Rolf Krause. A note on adaptive nonlinear preconditioning techniques. *SIAM Journal on Scientific Computing*, 40(2):A1171–A1186, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LKvBW10] **Long:2010:UEP**
 Kevin Long, Robert Kirby, and Bart van Bloemen Waanders. Unified embedded parallel finite element computations via software-based Fréchet differentiation. *SIAM Journal on Scientific Computing*, 32(6):3323–3351, ??? 2010. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:1993:AST

- [LL93] Kuiyuan Li and Tien-Yien Li. An algorithm for symmetric tridiagonal eigenproblems: divide and conquer with homotopy continuation. *SIAM Journal on Scientific Computing*, 14(3):735–751, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Loh:1994:LRC

- [LL94] Ching-Yuen Loh and Meng-Sing Liou. A Lagrangian random choice approach for supersonic real gas flows. *SIAM Journal on Scientific Computing*, 15(5):1038–1058, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

LeVeque:1997:IIM

- [LL97] Randall J. LeVeque and Zhilin Li. Immersed interface methods for Stokes flow with elastic boundaries or surface tension. *SIAM Journal on Scientific Computing*, 18(3):709–735, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28253>.

Lax:1998:STD

- [LL98a] Peter D. Lax and Xu-Dong Liu. Solution of two-dimensional Riemann problem of gas dynamics by positive schemes. *SIAM Journal on Scientific Computing*, 19(2):319–340, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29181>.

Lingjaerde:1998:GPP

- [LL98b] Ole C. Lingjærde and Knut Liestøl. Generalized projection pursuit regression. *SIAM Journal on Scientific Computing*, 20(3):844–857, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29657>.

Leriche:2000:HOD

- [LL00] E. Leriche and G. Labrosse. High-order direct Stokes solvers with or without temporal splitting: Numerical investigations of their comparative properties. *SIAM Journal on Scientific Computing*, 22(4):1386–1410, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34964>.

- [LL02] **Layton:2002:SLS** Anita T. Layton and Harold E. Layton. A semi-Lagrangian semi-implicit numerical method for models of the urine concentrating mechanism. *SIAM Journal on Scientific Computing*, 23(5):1526–1548, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38178>. [LL08]
- [LL03a] **Lee:2003:IIM** Long Lee and Randall J. LeVeque. An immersed interface method for incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 25(3):832–856, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41406>. [LL11]
- [LL03b] **Lemieux:2003:RPL** Christiane Lemieux and Pierre L’Ecuyer. Randomized polynomial lattice rules for multivariate integration and simulation. *SIAM Journal on Scientific Computing*, 24(5):1768–1789, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39378>. [LL19]
- Li:2011:BIM** Shuwang Li and Xiaofan Li. A boundary integral method for computing the dynamics of an epitaxial island. *SIAM Journal on Scientific Computing*, 33(6):3282–3302, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3282_s1.
- Lai:2017:SPD** Rongjie Lai and Jia Li. Solving partial differential equations on manifolds from incomplete interpoint distance. *SIAM Journal on Scientific Computing*, 39(5):A2231–A2256, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Lai:2019:FSM** Jun Lai and Peijun Li. A framework for simulation of multiple elastic scattering
- Liovic:2008:NKS** Petar Liovic and Djamel Lakehal. A Newton–Krylov solver for remapping-based volume-of-fluid methods. *SIAM Journal on Scientific Computing*, 31(2):865–889, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

in two dimensions. *SIAM Journal on Scientific Computing*, 41(5):A3276–A3299, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2020:ESA

[LL20]

Zhengguang Liu and Xiaoli Li. The exponential scalar auxiliary variable (E-SAV) approach for phase field models and its explicit computing. *SIAM Journal on Scientific Computing*, 42(3):B630–B655, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lang:2022:LIK

[LL22]

Quanjun Lang and Fei Lu. Learning interaction kernels in mean-field equations of first-order systems of interacting particles. *SIAM Journal on Scientific Computing*, 44(1):A260–A285, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1377072>.

Li:2022:SRP

[LLCW22]

Kexin Li, Hongwei Li, Raymond H. Chan, and Youwei Wen. Selecting regularization parameters for nuclear norm-type minimization problems. *SIAM Journal on Scientific Computing*, 44(4):A2204–A2225, 2022.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M143786X>.

Lappas:1999:RIM

Tasso Lappas, Anthony Leonard, and Paul E. Dimotakis. Riemann invariant manifolds for the multidimensional Euler equations. *SIAM Journal on Scientific Computing*, 20(4):1481–1512, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28406>.

Larsson:2013:SCD

[LLHF13]

Elisabeth Larsson, Erik Lehto, Alfa Heryudono, and Bengt Fornberg. Stable computation of differentiation matrices and scattered node stencils based on Gaussian radial basis functions. *SIAM Journal on Scientific Computing*, 35(4):A2096–A2119, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2022:RQS

[LLJ22]

Qiaohua Liu, Sitao Ling, and Zhigang Jia. Randomized quaternion singular value decomposition for low-rank matrix approximation. *SIAM Journal on Scientific Computing*, 44(2):

- A870–A900, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1418319>. **Li:2021:SIF** [LLN21]
- [LLJF21] Jingwei Li, Xiao Li, Lili Ju, and Xinlong Feng. Stabilized integrating factor Runge–Kutta method and unconditional preservation of maximum bound principle. *SIAM Journal on Scientific Computing*, 43(3):A1780–A1802, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lin:2021:AOP**
- [LL08] Ping Lin, Jian-Guo Liu, and Xiliang Lu. Long time numerical solution of the Navier–Stokes equations based on a sequential regularization formulation. *SIAM Journal on Scientific Computing*, 31(1):398–419, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Layton:1998:NSS**
- [LLP98] W. Layton, H. K. Lee, and J. Peterson. Numerical solution of the stationary Navier–Stokes equations using a multilevel finite element method. *SIAM Journal on Scientific Computing*, 20(1):1–12, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30604>. **Legoll:2013:MMP**
- [LLX16] Maojun Li, Fengyan Li, Zhen Li, and Liwei Xu. Maximum-principle-satisfying and positivity-preserving high order central discontinuous Galerkin methods for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 38(6):A3720–A3740, 2016. **Li:2016:MPS** [LLS13]
- Frédéric Legoll, Tony Lelièvre, and Giovanni Samaey. A micro-macro parareal algorithm: Application to singularly perturbed ordinary differential equations. *SIAM Journal on Scientific Computing*, 35(4):A1951–A1986, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LLS19] **Lu:2019:NMM** Wangtao Lu, Ya Yan Lu, and Dawei Song. A numerical mode matching method for wave scattering in a layered medium with a stratified inhomogeneity. *SIAM Journal on Scientific Computing*, 41(2):B274–B294, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LLS22a] **Legoll:2022:APA** Frédéric Legoll, Tony Lelièvre, and Upanshu Sharma. An adaptive parareal algorithm: Application to the simulation of molecular dynamics trajectories. *SIAM Journal on Scientific Computing*, 44(1):B146–B176, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1412979>.
- [LLS22b] **Liang:2022:IFI** Jingwei Liang, Tao Luo, and Carola-Bibiane Schönlieb. Improving “Fast Iterative Shrinkage-Thresholding Algorithm”: Faster, smarter, and greedier. *SIAM Journal on Scientific Computing*, 44(3):A1069–A1091, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1395685>.
- [LLS22c] **Liu:2022:EOF** Yong Liu, Jianfang Lu, and Chi-Wang Shu. An essentially oscillation-free discontinuous Galerkin method for hyperbolic systems. *SIAM Journal on Scientific Computing*, 44(1):A230–A259, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140835X>.
- [LLSX21] **Li:2021:QBA** Zhaoxing Li, Yanfang Liu, Jiguang Sun, and Liwei Xu. Quality-Bayesian approach to inverse acoustic source problems with partial data. *SIAM Journal on Scientific Computing*, 43(2):A1062–A1080, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LLTZ21] **Liao:2021:ESM** Hong lin Liao, Tao Tang, and Tao Zhou. An energy stable and maximum bound preserving scheme with variable time steps for time fractional Allen–Cahn equation. *SIAM Journal on Scientific Computing*, 43(5):A3503–A3526, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LLW16] **Lee:2016:LCE** Sanghyun Lee, Young-Ju Lee, and Mary F. Wheeler. A

- locally conservative enriched Galerkin approximation and efficient solver for elliptic and parabolic problems. *SIAM Journal on Scientific Computing*, 38(3):A1404–A1429, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LLZ08]
- [LLW19] Yingzhou Li, Jianfeng Lu, and Zhe Wang. Coordinatewise descent methods for leading eigenvalue problem. *SIAM Journal on Scientific Computing*, 41(4):A2681–A2716, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2019:CDM**
- [LLWxY20] Yongfeng Li, Haoyang Liu, Zaiwen Wen, and Ya xiang Yuan. Low-rank matrix iteration using polynomial-filtered subspace extraction. *SIAM Journal on Scientific Computing*, 42(3):A1686–A1713, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2020:LRM**
- [LLX15] Buyang Li, Jun Liu, and Mingqing Xiao. A fast and stable preconditioned iterative method for optimal control problem of wave equations. *SIAM Journal on Scientific Computing*, 37(6):A2508–A2534, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2015:FSP**
- [LLZ09] Jingzhi Li, Hongyu Liu, and Jun Zou. Strengthened linear sampling method with a reference ball. *SIAM Journal on Scientific Computing*, 31(6):4013–4040, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2009:SLS**
- [LLZ15] Jingchen Liu, Jianfeng Lu, and Xiang Zhou. Efficient rare event simulation for failure problems in random media. *SIAM Journal on Scientific Computing*, 37(2):A609–A624, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Liu:2015:ERE**
- [LLZW19] Zheng Liu, Rongjie Lai, Huayan Zhang, and Chunlin Wu. Triangulated surface denoising using high or- **Liu:2019:TSD**

- der regularization with dynamic weights. *SIAM Journal on Scientific Computing*, 41(1):B1–B26, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM99] **Lin:1999:ICF**
Chih-Jen Lin and Jorge J. Moré. Incomplete Cholesky factorizations with limited memory. *SIAM Journal on Scientific Computing*, 21(1):24–45, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32733>.
- [LM00] **Lackner:2000:MLS**
Klaus Lackner and Ralph Menikoff. Multiscale linear solvers for very large systems derived from PDES. *SIAM Journal on Scientific Computing*, 21(5):1950–1968, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33978>.
- [LM05a] **Langville:2005:RPP**
Amy N. Langville and Carl D. Meyer. A reordering for the PageRank problem. *SIAM Journal on Scientific Computing*, 27(6):2112–2120, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60755.html.
- [LM05b] **Lemou:2005:ISF**
Mohammed Lemou and Luc Mieussens. Implicit schemes for the Fokker-Planck-Landau equation. *SIAM Journal on Scientific Computing*, 27(3):809–830, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60942>.
- [LM08] **Lemou:2008:NAP**
Mohammed Lemou and Luc Mieussens. A new asymptotic preserving scheme based on micro-macro formulation for linear kinetic equations in the diffusion limit. *SIAM Journal on Scientific Computing*, 31(1):334–368, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM12] **Lemou:2012:MMS**
Mohammed Lemou and Florian Méhats. Micro-macro schemes for kinetic equations including boundary layers. *SIAM Journal on Scientific Computing*, 34(6):B734–B760, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LM14a] **Li:2014:ACS**
 Jinglai Li and Youssef M. Marzouk. Adaptive construction of surrogates for the Bayesian solution of inverse problems. *SIAM Journal on Scientific Computing*, 36(3):A1163–A1186, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM14b] **Lin:2014:ECU**
 Binghuai Lin and Dennis McLaughlin. Efficient characterization of uncertain model parameters with a reduced-order ensemble Kalman filter. *SIAM Journal on Scientific Computing*, 36(2):B198–B224, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM14c] **Lin:2014:RTE**
 Binghuai Lin and Dennis McLaughlin. Real-time ensemble control with reduced-order modeling. *SIAM Journal on Scientific Computing*, 36(4):B749–B775, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM15] **Leibs:2015:NIF**
 C. A. Leibs and T. A. Mantuffel. Nested iteration and first-order systems least squares for a two-fluid electromagnetic Darwin model. *SIAM Journal on Scientific Computing*, 37(5):S314–S333, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM17] **Levin:2017:ERP**
 Eitan Levin and Alexander Y. Meltzer. Estimation of the regularization parameter in linear discrete ill-posed problems using the Picard parameter. *SIAM Journal on Scientific Computing*, 39(6):A2741–A2762, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM20] **Lepe:2020:SND**
 Felipe Lepe and David Mora. Symmetric and nonsymmetric discontinuous Galerkin methods for a pseudostress formulation of the Stokes spectral problem. *SIAM Journal on Scientific Computing*, 42(2):A698–A722, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LM21] **Li:2021:BMS**
 Jiao Li and Kyle T. Mandli. An h -box method for shallow water equations including barriers. *SIAM Journal on Scientific Computing*, 43(2):B431–B454, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LMKG16] **Lange:2016:EMM** Michael Lange, Lawrence Mitchell, Matthew G. Knep-ley, and Gerard J. Gorman. Efficient mesh management in Firedrake using PETSc DMPlex. *SIAM Journal on Scientific Computing*, 38(5):S143–S155, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-
tronic).
- [LMM17] **Leibs:2017:CFE** Christopher A. Leibs, Thomas A. Manteuffel, and Steffen Müntenmaier. A comparison of finite element spaces for $H(\text{div})$ conforming first-order system least squares. *SIAM Journal on Scientific Computing*, 39(5):S920–S944, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LMM18] **Le:2018:SFE** Kim Ngan Le, William McLean, and Kassem Mustapha. A semidiscrete finite element approximation of a time-fractional Fokker–Planck equation with Non-Smooth initial data. *SIAM Journal on Scientific Computing*, 40(6):A3831–A3852, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LMMR00] **Lee:2000:FOS** B. Lee, T. A. Manteuffel, S. F. McCormick, and J. Ruge. First-order system least-squares for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 21(5):1927–1949, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33977>.
- [LMMW04] **Lukacova-Medvidova:2004:FVE** M. Lukáčová-Medvidová, K. W. Morton, and G. Warnecke. Finite volume evolution Galerkin methods for hyperbolic systems. *SIAM Journal on Scientific Computing*, 26(1):1–30, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41943>.
- [LMPQ03] **Lee:2003:AFA** Barry Lee, Stephen F. McCormick, Bobby Philip, and Daniel J. Quinlan. Asynchronous fast adaptive composite-grid methods: Numerical results. *SIAM Journal on Scientific Computing*, 25(2):682–700, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40753>.
- [LMR97] **Liu:1997:CCH** Lixin Liu, Gerald Moore, and

- Robert D. Russell. Computation and continuation of homoclinic and heteroclinic orbits with arclength parameterization. *SIAM Journal on Scientific Computing*, 18(1):69–93, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28821>. Dedicated to C. William Gear on the occasion of his 60th birthday. [LMRS21]
- Marcello Longo, Siddhartha Mishra, T. Konstantin Rusch, and Christoph Schwab. Higher-order quasi-Monte Carlo training of deep neural networks. *SIAM Journal on Scientific Computing*, 43(6):A3938–A3966, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Longo:2021:HOQ**
- W. J. Layton, J. M. Maubach, and P. J. Rabier. Robustness of an elementwise parallel finite element method for convection-diffusion problems. *SIAM Journal on Scientific Computing*, 19(6):1870–1891, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29354>. [LMR98] **Layton:1998:REP** [LMSSS97]
- M. A. López-Marcos, J. M. Sanz-Serna, and Robert D. Skeel. Explicit symplectic integrators using Hessian-vector products. *SIAM Journal on Scientific Computing*, 18(1):223–238, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28808>. Dedicated to C. William Gear on the occasion of his 60th birthday. **Lopez-Marcos:1997:ESI**
- A. Lanza, S. Morigi, L. Reichel, and F. Sgallari. A generalized Krylov subspace method for ℓ_p - ℓ_q minimization. *SIAM Journal on Scientific Computing*, 37(5):S30–S50, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LMRS15] **Lanza:2015:GKS** [LMT18]
- Pieter Lietaert, Karl Meerbergen, and Françoise Tisseur. Compact two-sided Krylov methods for nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(5):A2801–A2829, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lietaert:2018:CTS**

- [LMW15a] **Lee:2015:FNP**
 Eunjung Lee, Thomas A. Manteuffel, and Chad R. Westphal. FOSLL* for nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 37(5): S503–S525, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LN04]
- [LMW15b] **Liu:2015:PPG**
 Quan Liu, Ronald B. Morgan, and Walter Wilcox. Polynomial preconditioned GMRES and GMRES-DR. *SIAM Journal on Scientific Computing*, 37(5):S407–S428, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LMW17] **Lee:2017:PRD** [LN05]
 Jeonghun J. Lee, Kent-Andre Mardal, and Ragnar Winther. Parameter-robust discretization and preconditioning of Biot’s consolidation model. *SIAM Journal on Scientific Computing*, 39(1):A1–A24, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LN03] **Lie:2003:ACM**
 Knut-Andreas Lie and Sebastian Noelle. On the artificial compression method for second-order nonoscillatory central difference schemes for systems of conservation laws. *SIAM Journal on Scientific Computing*, 24(4):1157–1174, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39288>.
- Lotstedt:2004:MRI**
 Per Lötstedt and Martin Nilsson. A minimal residual interpolation method for linear equations with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 25(6): 2126–2144, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41877>.
- Lewis:2005:MPM**
 Robert Michael Lewis and Stephen G. Nash. Model problems for the multigrid optimization of systems governed by differential equations. *SIAM Journal on Scientific Computing*, 26(6): 1811–1837, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40779>.
- [LN17] **Lee:2017:PDD**
 Chang-Ock Lee and Changmin Nam. Primal domain decomposition methods for the total variation minimization, based on dual decom-

position. *SIAM Journal on Scientific Computing*, 39(2): B403–B423, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2023:SAG

[LN23]

Zexin Liu and Akil Narayan. A Stieltjes algorithm for generating multivariate orthogonal polynomials. *SIAM Journal on Scientific Computing*, 45(3):A1125–A1147, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1477131>.

Lunacek:2011:SCO

[LNA⁺11]

Monte Lunacek, Ambarish Nag, David M. Alber, Kenny Gruchalla, Christopher H. Chang, and Peter A. Graf. Simulation, characterization, and optimization of metabolic models with the high performance systems biology toolkit. *SIAM Journal on Scientific Computing*, 33(6): 3402–3424, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3402_s1.

Lin:2005:FBI

[LNC05]

Fu-Rong Lin, Michael K. Ng, and Wai-Ki Ching. Factorized banded inverse

preconditioners for matrices with Toeplitz structure. *SIAM Journal on Scientific Computing*, 26(6): 1852–1870, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60127>.

LeMaitre:2007:MRA

[LNP⁺07]

O. P. Le Maître, H. N. Najm, P. P. Pébay, R. G. Ghanem, and O. M. Knio. Multi-resolution-analysis scheme for uncertainty quantification in chemical systems. *SIAM Journal on Scientific Computing*, 29(2):864–889, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lee:2015:NSA

[LNP15]

J. Alex Lee, Jaewook Nam, and Matteo Pasquali. A new stabilization of adaptive step trapezoid rule based on finite difference interrupts. *SIAM Journal on Scientific Computing*, 37(2): A725–A746, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:1996:DST

[LNS96]

W. Li, D. Naik, and J. Swetits. A data smoothing technique for piecewise convex/concave curves. *SIAM Journal on Scien-*

- tific Computing*, 17(2):517–537, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23982>. [LNZ19b]
- Loisel:2015:OSL**
- [LNS15] Sébastien Loisel, Hieu Nguyen, and Robert Scheichl. Optimized Schwarz and 2-Lagrange multiplier methods for multiscale elliptic PDEs. *SIAM Journal on Scientific Computing*, 37(6):A2896–A2923, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LO03]
- Levy:2006:CWS**
- [LNSZ06] Doron Levy, Suhas Nayak, Chi-Wang Shu, and Yong-Tao Zhang. Central WENO schemes for Hamilton–Jacobi equations on triangular meshes. *SIAM Journal on Scientific Computing*, 28(6):2229–2247, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LO11]
- Li:2019:CCFa**
- [LNZ19a] Lingxiao Li, Mingjiu Ni, and Weiyang Zheng. A charge-conservative finite element method for inductionless MHD equations. Part I: Convergence. *SIAM Journal on Scientific Computing*, 41(4):B796–B815, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2019:CCFb**
- Lingxiao Li, Mingjiu Ni, and Weiyang Zheng. A charge-conservative finite element method for inductionless MHD equations. Part II: a robust solver. *SIAM Journal on Scientific Computing*, 41(4):B816–B842, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lin:2003:NSC**
- Ping Lin and R. E. O’Malley, Jr. The numerical solution of a challenging class of Turning point problems. *SIAM Journal on Scientific Computing*, 25(3):927–941, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39444>. **Lai:2011:AMH**
- James H. Lai and Luke N. Olson. Algebraic multigrid for high-order hierarchical $H(\text{curl})$ finite elements. *SIAM Journal on Scientific Computing*, 33(5):2888–2902, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2888_s1

- [LO14] **Lemoine:2014:FVM**
 Grady I. Lemoine and M. Yvonne Ou. Finite volume modeling of poroelastic-fluid wave propagation with mapped grids. *SIAM Journal on Scientific Computing*, 36(3):B396–B426, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LO19] **Lai:2019:UES**
 Ming-Chih Lai and Kian Chuan Ong. Unconditionally energy stable schemes for the inextensible interface problem with bending. *SIAM Journal on Scientific Computing*, 41(4):B649–B668, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Log03a] **Logg:2003:MAGa**
 Anders Logg. Multi-adaptive Galerkin methods for ODEs I. *SIAM Journal on Scientific Computing*, 24(6):1879–1902, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38972>.
- [Log03b] **Logg:2003:MAGb**
 Anders Logg. Multi-adaptive Galerkin methods for ODEs II: implementation and applications. *SIAM Journal on Scientific Computing*, 25(4):1119–1141, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38973>.
- [LOL13] **Lemoine:2013:HRF**
 Grady I. Lemoine, M. Yvonne Ou, and Randall J. LeVeque. High-resolution finite volume modeling of wave propagation in orthotropic poroelastic media. *SIAM Journal on Scientific Computing*, 35(1):B176–B206, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LOSZ07] **Langer:2007:IDS**
 U. Langer, G. Of, O. Steinbach, and W. Zulehner. Inexact data-sparse boundary element tearing and interconnecting methods. *SIAM Journal on Scientific Computing*, 29(1):290–314, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LP96] **Layton:1996:OAF**
 W. Layton and B. Polman. Oscillation absorption finite element methods for convection-diffusion problems. *SIAM Journal on Scientific Computing*, 17(6):1328–1346, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38973>.

- [/epubs.siam.org/sam-bin/dbq/article/25909](http://epubs.siam.org/sam-bin/dbq/article/25909).
- [LP03] **Lombard:2003:HIS**
Bruno Lombard and Joël Piraux. How to incorporate the spring-mass conditions in finite-difference schemes. *SIAM Journal on Scientific Computing*, 24(4):1379–1407, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38593>.
- [LP04] **Lim:2004:SWI**
Sookkyung Lim and Charles S. Peskin. Simulations of the whirling instability by the immersed boundary method. *SIAM Journal on Scientific Computing*, 25(6):2066–2083, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41747>.
- [LP06] **Lombard:2006:NME**
Bruno Lombard and Joël Piraux. Numerical modeling of elastic waves across imperfect contacts. *SIAM Journal on Scientific Computing*, 28(1):172–205, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62740.html.
- [LP08] **LeRoux:2008:ANI**
Daniel Y. Le Roux and Benoit Pouliot. Analysis of numerically induced oscillations in two-dimensional finite-element shallow-water models. Part II: Free planetary waves. *SIAM Journal on Scientific Computing*, 30(4):1971–1991, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LP11] **Lakkis:2011:FEM**
Omar Lakkis and Tristan Pryer. A finite element method for second order nonvariational elliptic problems. *SIAM Journal on Scientific Computing*, 33(2):786–801, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p786_s1.
- [LP13] **Lakkis:2013:FEM**
Omar Lakkis and Tristan Pryer. A finite element method for nonlinear elliptic problems. *SIAM Journal on Scientific Computing*, 35(4):A2025–A2045, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LP22] **Leveque:2022:PRP**
Santolo Leveque and John W. Pearson. Parameter-robust

- preconditioning for Oseen iteration applied to stationary and instationary Navier–Stokes control. *SIAM Journal on Scientific Computing*, 44(3):B694–B722, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1436531>. [LPP19]
- [LP23] Zhilin Li and Kejia Pan. High order compact schemes for flux type BCs. *SIAM Journal on Scientific Computing*, 45(2):A646–A674, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1444771>. [LPR98]
- [LPMR19] J. J. Lee, E. Piersanti, K.-A. Mardal, and M. E. Rognes. A mixed finite element method for nearly incompressible multiple-network poroelasticity. *SIAM Journal on Scientific Computing*, 41(2):A722–A747, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lee:2019:MFE]
- [LPP09] Alexei Lozinski, Marco Picasso, and Virabouth Prachittham. An anisotropic error estimator for the Crank–Nicolson method: Application to a parabolic problem. *SIAM Journal on Scientific Computing*, 31(4):2757–2783, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lee:2019:FEA]
- Chang-Ock Lee, Eun-Hee Park, and Jongho Park. A finite element approach for the dual Rudin–Osher–Fatemi model and its nonoverlapping domain decomposition methods. *SIAM Journal on Scientific Computing*, 41(2):B205–B228, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Li:1998:SMM]
- [LPR98] Shengtai Li, Linda Petzold, and Yuhe Ren. Stability of moving mesh systems of partial differential equations. *SIAM Journal on Scientific Computing*, 20(2):719–738, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30201>. [Levy:2000:CCW]
- [LPR00] Doron Levy, Gabriella Puppo, and Giovanni Russo. Compact central WENO schemes for multidimensional conservation laws. *SIAM Journal on Scientific Computing*, 22(2):656–672, March 2000. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35946>. [LPSB17]
- Levy:2002:FOC**
- [LPR02] Doron Levy, Gabriella Puppo, and Giovanni Russo. A fourth-order central WENO scheme for multidimensional hyperbolic systems of conservation laws. *SIAM Journal on Scientific Computing*, 24(2):480–506, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38585>.
- Lee:2010:SIA**
- [LPS10] Spike T. Lee, Hong-Kui Pang, and Hai-Wei Sun. Shift-invert Arnoldi approximation to the Toeplitz matrix exponential. *SIAM Journal on Scientific Computing*, 32(2):774–792, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LQ19]
- Liu:2013:AES**
- [LPS13] Hailiang Liu, Michael Pollock, and Haseena Saran. Alternating evolution schemes for Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 35(1):A122–A149, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LQH21]
- La:2017:DCO**
- H. C. La, A. Potschka, J. P. Schlöder, and H. G. Bock. Dual control and online optimal experimental design. *SIAM Journal on Scientific Computing*, 39(4):B640–B657, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Lu:2021:PIN**
- Lu Lu, Raphaël Pestourie, Wenjie Yao, Zhicheng Wang, Francesc Verdugo, and Steven G. Johnson. Physics-informed neural networks with hard constraints for inverse design. *SIAM Journal on Scientific Computing*, 43(6):B1105–B1132, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Lam:2019:NMA**
- Chi Yeung Lam and Jianliang Qian. Numerical microlocal analysis by fast Gaussian wave packet transforms and application to high-frequency Helmholtz problems. *SIAM Journal on Scientific Computing*, 41(5):A2717–A2746, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Leung:2021:LSA**
- Shingyu Leung, Jianliang Qian, and Jiangtao Hu. A

- level-set adjoint-state method for transmission traveltime tomography in irregular domains. *SIAM Journal on Scientific Computing*, 43(3): A2352–A2380, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LQR12] Toni Lassila, Alfio Quarteroni, and Gianluigi Rozza. A reduced basis model with parametric coupling for fluid-structure interaction problems. *SIAM Journal on Scientific Computing*, 34(2): A1187–A1213, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LQX14] Jing Li, Xin Qi, and Dongbin Xiu. On upper and lower bounds for quantity of interest in problems subject to epistemic uncertainty. *SIAM Journal on Scientific Computing*, 36(2):A364–A376, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LQZ22] Chaoyu Liu, Zhonghua Qiao, and Qian Zhang. Two-phase segmentation for intensity inhomogeneous images by the Allen–Cahn local binary fitting model. *SIAM Journal on Scientific Computing*, 44(1):B177–B196, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1421830>.
- [LR98] K. Lust and D. Roose. An adaptive Newton–Picard algorithm with subspace iteration for computing periodic solutions. *SIAM Journal on Scientific Computing*, 19(4):1188–1209, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27767>.
- [LR99] N. K. Leung and R. J. Renka. C^1 convexity-preserving interpolation of scattered data. *SIAM Journal on Scientific Computing*, 20(5):1732–1752, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31583>.
- [LR10] Caroline Lasser and Susanna Röblitz. Computing expectation values for molecular quantum dynamics. *SIAM Journal on Scientific Computing*, 32(3):1465–1483, 2010. CODEN SJOCE3.

Lassila:2012:RBM

[LR98]

Lust:1998:ANP**Li:2014:ULB**

[LR99]

Leung:1999:CPI**Liu:2022:TPS**

[LR10]

Lasser:2010:CEV

ISSN 1064-8275 (print), 1095-7197 (electronic).

Lehrenfeld:2012:NXS

[LR12]

Christoph Lehrenfeld and Arnold Reusken. Nitsche–XFEM with streamline diffusion stabilization for a two-phase mass transport problem. *SIAM Journal on Scientific Computing*, 34(5):A2740–A2759, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Leeb:2020:NSF

[LR20a]

William Leeb and Vladimir Rokhlin. On the numerical solution of fourth-order linear two-point boundary value problems. *SIAM Journal on Scientific Computing*, 42(3):A1789–A1808, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Loizou:2020:CAI

[LR20b]

Nicolas Loizou and Peter Richtárik. Convergence analysis of inexact randomized iterative methods. *SIAM Journal on Scientific Computing*, 42(6):A3979–A4016, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

LeMaitre:2004:NCC

[LRD⁺04]

Olivier Le Maître, M. T. Reagan, B. Debusschere, H. N. Najm, R. G. Ghanem, and

O. M. Knio. Natural convection in a closed cavity under stochastic non-boussinesq conditions. *SIAM Journal on Scientific Computing*, 26(2):375–394, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42285>.

Luo:2017:USM

[LRGO17]

Peiyao Luo, Carmen Rodrigo, Francisco J. Gaspar, and Cornelis W. Oosterlee. Uzawa smoother in multigrid for the coupled porous medium and Stokes flow system. *SIAM Journal on Scientific Computing*, 39(5):S633–S661, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

LeRoux:2007:ANI

[LRP07]

Daniel Y. Le Roux, Virgile Rostand, and Benoit Pouliot. Analysis of numerically induced oscillations in 2D finite-element shallow-water models. Part I: Inertia-gravity waves. *SIAM Journal on Scientific Computing*, 29(1):331–360, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liesen:2002:LSR

[LRS02]

J. Liesen, M. Rozložník, and Z. Strakos. Least squares residuals and minimal resid-

- ual methods. *SIAM Journal on Scientific Computing*, 23(5):1503–1525, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37798>.
- [LRSV11] **Lampe:2011:ALA** [LRW96] J. Lampe, M. Rojas, D. C. Sorensen, and H. Voss. Accelerating the LSTRS algorithm. *SIAM Journal on Scientific Computing*, 33(1):175–194, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p175_s1.
- [LRT11] **Litvinov:2011:MTS** [LS94] William G. Litvinov, Talal Rahman, and Xue-Cheng Tai. A modified TV–Stokes model for image processing. *SIAM Journal on Scientific Computing*, 33(4):1574–1597, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i4/p1574_s1.
- [LRV22] **Lepe:2022:MMV** [LS95] Felipe Lepe, Gonzalo Rivera, and Jesus Vellojin. Mixed methods for the velocity-pressure-pseudostress formulation of the Stokes eigenvalue problem. *SIAM Journal on Scientific Computing*, 44(3):A1358–A1380, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1402959>.
- Lanzkron:1996:AAN** [LRW96] Paul J. Lanzkron, Donald J. Rose, and James T. Wilkes. An analysis of approximate nonlinear elimination. *SIAM Journal on Scientific Computing*, 17(2):538–559, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25154>.
- Lee:1994:TPS** [LRW96] David Lee and Jyh Jen Horng Shiau. Thin plate splines with discontinuities and fast algorithms for their computation. *SIAM Journal on Scientific Computing*, 15(6):1311–1330, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- LeVeque:1995:ODF** [LRV22] Randall J. LeVeque and Keh Ming Shyue. One-dimensional front tracking based on high resolution wave propagation methods. *SIAM Journal on Scientific Computing*, 16(2):348–377, March 1995. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Lage:1999:WGA

[LS99]

Christian Lage and Christoph Schwab. Wavelet Galerkin algorithms for boundary integral equations. *SIAM Journal on Scientific Computing*, 20(6):2195–2222, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32998>.

Lyche:2000:MTS

[LS00]

Tom Lyche and Larry L. Schumaker. A multiresolution tensor spline method for fitting functions on the sphere. *SIAM Journal on Scientific Computing*, 22(2):724–746, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34438>.

Lubich:2002:FCN

[LS02]

Christian Lubich and Achim Schädle. Fast convolution for nonreflecting boundary conditions. *SIAM Journal on Scientific Computing*, 24(1):161–182, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38874>.

[LS05a]

Li:2005:SRV

Zhongze Li and Yousef Saad. SchurRAS: a restricted version of the overlapping Schur complement preconditioner. *SIAM Journal on Scientific Computing*, 27(5):1787–1801, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60835.html.

Liesen:2005:GCA

[LS05b]

J. Liesen and Z. Strakos. GMRES convergence analysis for a convection-diffusion model problem. *SIAM Journal on Scientific Computing*, 26(6):1989–2009, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43074>.

Liu:2009:AND

[LS09]

J. J. Liu and M. Sini. On the accuracy of the numerical detection of complex obstacles from far field data using the probe method. *SIAM Journal on Scientific Computing*, 31(4):2665–2687, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lafitte:2012:APP

[LS12a]

Pauline Lafitte and Giovanni Samaey. Asymptotic-preserving projective inte-

- gration schemes for kinetic equations in the diffusion limit. *SIAM Journal on Scientific Computing*, 34(2): A579–A602, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LS16a]
- [LS12b] Marc Lenoir and Nicolas Salles. Evaluation of 3-D singular and nearly singular integrals in Galerkin BEM for thin layers. *SIAM Journal on Scientific Computing*, 34(6):A3057–A3078, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lenoir:2012:EDS**
- [LS13a] Dirk Lebiedz and Jochen Siehr. A continuation method for the efficient solution of parametric optimization problems in kinetic model reduction. *SIAM Journal on Scientific Computing*, 35(3): A1584–A1603, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lebiedz:2013:CME**
- [LS13b] Ruipeng Li and Yousef Saad. Divide and conquer low-rank preconditioners for symmetric matrices. *SIAM Journal on Scientific Computing*, 35(4):A2069–A2095, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:2013:DCL**
- [LS16b] Benedict Leimkuhler and Xiaocheng Shang. Adaptive thermostats for noisy gradient systems. *SIAM Journal on Scientific Computing*, 38(2):A712–A736, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Leimkuhler:2016:ATN**
- [LS20] Jesse Laeuchli and Andreas Stathopoulos. Extending hierarchical probing for computing the trace of matrix inverses. *SIAM Journal on Scientific Computing*, 42(3): A1459–A1485, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Laeuchli:2020:EHP**
- [LS22] Benedict Leimkuhler and Matthias Sachs. Efficient numerical algorithms for the generalized Langevin equation. *SIAM Journal on Scientific Computing*, 38(6): B988–B1008, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Lang:2016:MPI**
- [LS22] Benedict Leimkuhler and Matthias Sachs. Efficient numerical algorithms for the generalized Langevin equation. *SIAM Journal on Scientific Computing*, 38(6): A712–A736, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Leimkuhler:2022:ENA**

- Scientific Computing*, 44(1): A364–A388, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M138497X>.
- [LSC23] **Lovbak:2023:ASB** [LSH17] Emil Løvbak and Giovanni Samaey. Accelerated simulation of Boltzmann–BGK equations near the diffusive limit with asymptotic-preserving multilevel Monte Carlo. *SIAM Journal on Scientific Computing*, 45(4): A1862–A1889, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1498498>.
- [LSC03] **Li:2003:CVG** Na Li, Yousef Saad, and Edmond Chow. Crout versions of *ILU* for general sparse matrices. *SIAM Journal on Scientific Computing*, 25(2):716–728, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40509>.
- [LSC18] **Li:2018:MST** Shishun Li, Xinping Shao, and Xiao-Chuan Cai. Multilevel space-time additive Schwarz methods for parabolic equations. *SIAM Journal on Scientific Computing*, 40(5): A3012–A3037, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Larsson:2017:LSR** Elisabeth Larsson, Victor Shcherbakov, and Alfa Heryudono. A least squares radial basis function partition of unity method for solving PDEs. *SIAM Journal on Scientific Computing*, 39(6):A2538–A2563, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSM93] **Lowengrub:1993:HOE** J. S. Lowengrub, M. J. Shelley, and B. Merriman. High-order and efficient methods for the vorticity formulation of the Euler equations. *SIAM Journal on Scientific Computing*, 14(5): 1107–1142, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSM22] **Liljegren-Sailer:2022:PHA** Björn Liljegren-Sailer and Nicole Marheineke. On port-Hamiltonian approximation of a nonlinear flow problem on networks. *SIAM Journal on Scientific Computing*, 44(3):B834–B859, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1498498>.

- [//epubs.siam.org/doi/10.1137/21M1443480](http://epubs.siam.org/doi/10.1137/21M1443480).
- [LSN17] Ang Li, Radu Serban, and Dan Negrut. Analysis of a splitting approach for the parallel solution of linear systems on GPU cards. *SIAM Journal on Scientific Computing*, 39(3):C215–C237, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LST07] **Li:2017:ASA** Robert Michael Lewis, Anne Shepherd, and Virginia Torczon. Implementing generating set search methods for linearly constrained minimization. *SIAM Journal on Scientific Computing*, 29(6):2507–2530, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LST20] **Lopez-Salas:2021:AWN** Yunzhang Li, Chi-Wang Shu, and Shanjian Tang. A discontinuous Galerkin method for stochastic conservation laws. *SIAM Journal on Scientific Computing*, 42(1):A54–A86, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSPRV21] J. G. López-Salas, S. Pérez-Rodríguez, and C. Vázquez. AMFR-W numerical methods for solving high-dimensional SABR/IBOR PDE models. *SIAM Journal on Scientific Computing*, 43(1):B30–B54, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSS03] **Little:2003:BPS** Leigh Little, Yousef Saad, and Laurent Smoch. Block *LU* preconditioners for symmetric and nonsymmetric saddle point problems. *SIAM Journal on Scientific Computing*, 25(2):729–748, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40551>.
- [LSTY21] **Langer:2021:UST** Ulrich Langer, Olaf Steinbach, Fredi Tröltzsch, and Huidong Yang. Unstructured space-time finite element methods for optimal control of parabolic equations. *SIAM Journal on Scientific Computing*, 43(2):A744–A771, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSU11] **Lebiedz:2011:VPC** Dirk Lebiedz, Jochen Siehr, and Jonas Unger. A variational principle for computing slow invariant manifolds

- in dissipative dynamical systems. *SIAM Journal on Scientific Computing*, 33(2): 703–720, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i2/p703_s1. [LSW17]
- [LSV13] K. Lipnikov, D. Svyatskiy, and Y. Vassilevski. Anderson acceleration for nonlinear finite volume scheme for advection–diffusion problems. *SIAM Journal on Scientific Computing*, 35(2): A1120–A1136, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lipnikov:2013:AAN]
- [LSV17] S. Lanteri, C. Scheid, and J. Viquerat. Analysis of a generalized dispersive model coupled to a DGTD method with application to nanophotonics. *SIAM Journal on Scientific Computing*, 39(3): A831–A859, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lanteri:2017:AGD]
- [LSW02] Pierre L’Ecuyer, Richard Simard, and Stefan Wegenkittl. Sparse serial tests of uniformity for random number generators. *SIAM Journal on Scientific Computing*, 24(2):652–668, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34903>. [Lehto:2017:RBF]
- Erik Lehto, Varun Shankar, and Grady B. Wright. A radial basis function (RBF) compact finite difference (FD) scheme for reaction–diffusion equations on surfaces. *SIAM Journal on Scientific Computing*, 39(5): A2129–A2151, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Li:2019:SEP]
- [LSY19] Ruo Li, Zhiyuan Sun, and Fanyi Yang. Solving eigenvalue problems in a discontinuous approximation space by patch reconstruction. *SIAM Journal on Scientific Computing*, 41(5):A3381–A3400, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Li:2021:NCA]
- [LSY21] Ruipeng Li, Björn Sjögreen, and Ulrike Meier Yang. A new class of AMG interpolation methods based on matrix–matrix multiplications. *SIAM Journal on Scientific Computing*, 43(5): S540–S564, 2021. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [LSYY21] Xiaolong Li, Yifan Shi, Sheng Chi Phillip Yam, and Hailiang Yang. Fourier-cosine method for finite-time Gerber–Shiu functions. *SIAM Journal on Scientific Computing*, 43(3):B650–B677, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LSZ11] Yuanyuan Liu, Chi-Wang Shu, and Mengping Zhang. High order finite difference WENO schemes for nonlinear degenerate parabolic equations. *SIAM Journal on Scientific Computing*, 33(2):939–965, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p939_s1.
- [LSZ17] Qingyuan Liu, Chi-Wang Shu, and Mengping Zhang. Discontinuous Galerkin methods for weakly coupled hyperbolic MultiDomain problems. *SIAM Journal on Scientific Computing*, 39(5):A2201–A2230, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Li:2021:FCM] Xiaolong Li, Yifan Shi, Sheng Chi Phillip Yam, and Hailiang Yang. Fourier-cosine method for finite-time Gerber–Shiu functions. *SIAM Journal on Scientific Computing*, 43(3):B650–B677, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Liu:2011:HOF] Yuanyuan Liu, Chi-Wang Shu, and Mengping Zhang. High order finite difference WENO schemes for nonlinear degenerate parabolic equations. *SIAM Journal on Scientific Computing*, 33(2):939–965, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p939_s1.
- [Liu:2017:DGM] Qingyuan Liu, Chi-Wang Shu, and Mengping Zhang. Discontinuous Galerkin methods for weakly coupled hyperbolic MultiDomain problems. *SIAM Journal on Scientific Computing*, 39(5):A2201–A2230, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Liu:2023:ERS] Xinyu Liu, Jie Shen, and Xiangxiang Zhang. An efficient and robust scalar auxiliary variable based algorithm for discrete gradient systems arising from optimizations. *SIAM Journal on Scientific Computing*, 45(5):A2304–A2324, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/23M1545744>.
- [Lin:2000:HRN] Chi-Tien Lin and Eitan Tadmor. High-resolution nonoscillatory central schemes for Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 21(6):2163–2186, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34485>.
- [Leung:2009:SBD] Ngai-Hang Z. Leung and Kim-Chuan Toh. An SDP-based divide-and-conquer algorithm for large-scale noisy anchor-free graph realization. *SIAM Journal on Scientific Computing*, 31(6):4351–4372, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LT12] **Lord:2012:CST**
 G. J. Lord and V. Thümmler. Computing stochastic traveling waves. *SIAM Journal on Scientific Computing*, 34(1): B24–B43, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pB24_s1.
- [LTC13] **Lai:2013:RCP**
 Rongjie Lai, Xue-Cheng Tai, and Tony F. Chan. A ridge and corner preserving model for surface restoration. *SIAM Journal on Scientific Computing*, 35(2):A675–A695, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LT14] **Loffeld:2014:IPA**
 J. Loffeld and M. Tokman. Implementation of parallel adaptive-Krylov exponential solvers for stiff problems. *SIAM Journal on Scientific Computing*, 36(5):C591–C616, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LTG22] **Liu:2022:OSM**
 Hao Liu, Xue-Cheng Tai, and Roland Glowinski. An operator-splitting method for the Gaussian curvature regularization model with applications to surface smoothing and imaging. *SIAM Journal on Scientific Computing*, 44(2):A935–A963, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M143772X>.
- [LT20] **Lu:2020:PAD**
 Hannah Lu and Daniel M. Tartakovsky. Prediction accuracy of dynamic mode decomposition. *SIAM Journal on Scientific Computing*, 42(3):A1639–A1662, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LTT16] **Lin:2021:LRR**
 Lin Lin and Yu Tong. Low-rank representation of tensor network operators with long-range pairwise interactions. *SIAM Journal on Scientific Computing*, 43(1): A164–A192, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LTT16] **Law:2016:DMF**
 Kody J. H. Law, Hamidou Tembine, and Raul Tempone. Deterministic mean-field ensemble Kalman filtering. *SIAM Journal on Scientific Computing*, 38(3): A1251–A1279, 2016. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Liu:2018:LOW

[LTW18]

Jiangguo Liu, Simon Tavener, and Zhuoran Wang. Lowest-order weak Galerkin finite element method for Darcy flow on convex polygonal meshes. *SIAM Journal on Scientific Computing*, 40(5): B1229–B1252, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2021:PCC

[LTzT21]

Shuang Liu, Qi Tang, and Xian zhu Tang. A parallel cut-cell algorithm for the free-boundary Grad–Shafranov problem. *SIAM Journal on Scientific Computing*, 43(6): B1198–B1225, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lu:1995:UCB

[Lu95]

Hao Lu. A uniform-consistency barrier on finite-difference schemes of positive type for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 16(1): 169–172, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lass:2017:MOR

[LU17]

Oliver Lass and Stefan Ulbrich. Model order reduc-

tion techniques with a posteriori error control for nonlinear robust optimization governed by partial differential equations. *SIAM Journal on Scientific Computing*, 39(5): S112–S139, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lui:1997:CPC

[Lui97]

S. H. Lui. Computation of pseudospectra by continuation. *SIAM Journal on Scientific Computing*, 18(2):565–573, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27603>.

Lui:2000:SAM

[Lui00]

S. H. Lui. On Schwarz alternating methods for nonlinear elliptic PDEs. *SIAM Journal on Scientific Computing*, 21(4):1506–1523, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32755>.

Lui:2001:SAM

[Lui01]

S. H. Lui. On Schwarz alternating methods for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 22(6): 1974–1986, November 2001. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34741>.
- [Luo19] **Luo:2019:FHS**
Songting Luo. Fast Huygens sweeping methods for time-dependent Schrödinger equation with perfectly matched layers. *SIAM Journal on Scientific Computing*, 41(2): A877–A899, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Luu15] **Luu:2015:EAP**
Thomas Luu. Efficient and accurate parallel inversion of the gamma distribution. *SIAM Journal on Scientific Computing*, 37(1):C122–C141, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LV94] **Laurie:1994:TPA**
Dirk P. Laurie and Lucas M. Venter. A two-phase algorithm for the Chebyshev solution of complex linear equations. *SIAM Journal on Scientific Computing*, 15(6): 1440–1451, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LV98] **Lai:1998:GCM**
Shang-Hong Lai and Baba C. Vemuri. Generalized capac-
- [LV07] **Lang:2007:GEE**
J. Lang and J. G. Verwer. On global error estimation and control for initial value problems. *SIAM Journal on Scientific Computing*, 29(4): 1460–1475, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LV10] **Ledoux:2010:SSL**
Veerle Ledoux and Marnix Van Daele. Solution of Sturm–Liouville problems using modified Neumann schemes. *SIAM Journal on Scientific Computing*, 32(2): 563–584, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LV13] **Lass:2013:PGS**
O. Lass and S. Volkwein. POD Galerkin schemes for nonlinear elliptic-parabolic systems. *SIAM Journal on Scientific Computing*, 35(3): A1271–A1298, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- itance matrix theorems and algorithm for solving linear systems. *SIAM Journal on Scientific Computing*, 19(3):1024–1045, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28365>.

1064-8275 (print), 1095-7197 (electronic).

Laurent:2020:MID

[LV20]

Adrien Laurent and Gilles Vilmart. Multirevolution integrators for differential equations with fast stochastic oscillations. *SIAM Journal on Scientific Computing*, 42(1): A115–A139, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Luiken:2021:RRL

[LvL21]

Nick Luiken and Tristan van Leeuwen. Relaxed regularization for linear inverse problems. *SIAM Journal on Scientific Computing*, 43(5): S269–S292, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lacroix:2003:ISM

[LVWW03]

S. Lacroix, Yu. Vassilevski, J. Wheeler, and M. Wheeler. Iterative solution methods for modeling multiphase flow in porous media fully implicitly. *SIAM Journal on Scientific Computing*, 25(3): 905–926, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40443>.

[LW97]

Lumsdaine:1997:SPW

Andrew Lumsdaine and Deyun Wu. Spectra and pseudospectra of waveform relaxation operators. *SIAM Journal on Scientific Computing*, 18(1):286–304, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28778>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Liska:2003:CSD

[LW03]

Richard Liska and Burton Wendroff. Comparison of several difference schemes on 1D and 2D test problems for the Euler equations. *SIAM Journal on Scientific Computing*, 25(3):995–1017, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40212>.

Loghin:2004:APS

[LW04]

D. Loghin and A. J. Wathen. Analysis of preconditioners for saddle-point problems. *SIAM Journal on Scientific Computing*, 25(6): 2029–2049, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41820>.

- [LW12a] **Labeur:2012:ESM**
 Robert Jan Labeur and Garth N. Wells. Energy stable and momentum conserving hybrid finite element method for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 34(2):A889–A913, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW12b] **Lieberman:2012:GOI**
 Chad Lieberman and Karen Willcox. Goal-oriented inference: Approach, linear theory, and application to advection diffusion. *SIAM Journal on Scientific Computing*, 34(4):A1880–A1904, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW14] **Lieberman:2014:NGO**
 Chad Lieberman and Karen Willcox. Nonlinear goal-oriented Bayesian inference: Application to carbon capture and storage. *SIAM Journal on Scientific Computing*, 36(3):B427–B449, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW15] **Liao:2015:DDA**
 Qifeng Liao and Karen Willcox. A domain decomposition approach for uncertainty analysis. *SIAM Journal on Scientific Computing*, 37(1):A103–A133, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW16] **Li:2016:EIP**
 Yu-Wen Li and Xinyuan Wu. Exponential integrators preserving first integrals or Lyapunov functions for conservative or dissipative systems. *SIAM Journal on Scientific Computing*, 38(3):A1876–A1895, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW19a] **LeBorne:2019:ISS**
 Sabine Le Borne and Michael Wende. Iterative solution of saddle-point systems from radial basis function (RBF) interpolation. *SIAM Journal on Scientific Computing*, 41(3):A1706–A1732, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW19b] **Luo:2019:MMC**
 Yan Luo and Zhu Wang. A multilevel Monte Carlo ensemble scheme for random parabolic PDEs. *SIAM Journal on Scientific Computing*, 41(1):A622–A642, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LW20a] **Liu:2020:VLS**
 Chun Liu and Yiwei Wang. A variational Lagrangian scheme for a phase-field model: a discrete energetic variational approach. *SIAM Journal on Scientific Computing*, 42(6):B1541–B1569, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW20b] **Lu:2020:FCI**
 Jianfeng Lu and Zhe Wang. The full configuration interaction quantum Monte Carlo method through the lens of inexact power iteration. *SIAM Journal on Scientific Computing*, 42(1):B1–B29, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LW22a] **Leung:2022:MPE**
 Wing Tat Leung and Yating Wang. Multirate partially explicit scheme for multiscale flow problems. *SIAM Journal on Scientific Computing*, 44(3):A1775–A1806, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1440293>.
- [LW22b] **Liu:2022:PTP**
 Jun Liu and Shu-Lin Wu. Parallel-in-time preconditioner for the Sinc–Nyström systems. *SIAM Journal on Scientific Computing*, 44(4):A2386–A2411, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1462696>.
- [LWCL03] **Li:2003:NFI**
 Zhilin Li, Wei-Cheng Wang, I-Liang Chern, and Ming-Chih Lai. New formulations for interface problems in polar coordinates. *SIAM Journal on Scientific Computing*, 25(1):224–245, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LWG10] **Lieberman:2010:PSM**
 Chad Lieberman, Karen Willcox, and Omar Ghattas. Parameter and state model reduction for large-scale statistical inverse problems. *SIAM Journal on Scientific Computing*, 32(5):2523–2542, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LWK+16] **Lu:2016:FAF**
 Linzhang Lu, Teng Wang, Yueh-Cheng Kuo, Ren-Cang Li, and Wen-Wei Lin. A fast algorithm for fast train palindromic quadratic eigenvalue problems. *SIAM Journal on Scientific Computing*, 38(6):A3410–A3429, ??? 2016. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Lu:2022:TLO

[LWSP22]

Qing Lu, Junxian Wang, Shi Shu, and Jie Peng. Two-level overlapping Schwarz methods based on local generalized eigenproblems for Hermitian variational problems. *SIAM Journal on Scientific Computing*, 44(2): A605–A635, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1424342>.

Li:2020:ASQ

[LWW20]

Ruo Li, Yanli Wang, and Yixuan Wang. Approximation to singular quadratic collision model in Fokker–Planck–Landau equation. *SIAM Journal on Scientific Computing*, 42(3):B792–B815, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2022:SOA

[LWW22]

Chun Liu, Cheng Wang, and Yiwei Wang. A second-order accurate, operator splitting scheme for reaction–diffusion systems in an energetic variational formulation. *SIAM Journal on Scientific Computing*, 44(4):A2276–A2301, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<https://epubs.siam.org/doi/10.1137/21M1444825>.

Li:2018:SNM

[LWYxY18]

Yongfeng Li, Zaiwen Wen, Chao Yang, and Ya xiang Yuan. A SemiSmooth Newton method for semidefinite programs and its applications in electronic structure calculations. *SIAM Journal on Scientific Computing*, 40(6): A4131–A4157, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2013:LMB

[LWZ13]

Xin Liu, Zaiwen Wen, and Yin Zhang. Limited memory block Krylov subspace optimization for computing dominant singular value decompositions. *SIAM Journal on Scientific Computing*, 35(3): A1641–A1668, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:2017:UCG

[LWZ17]

Dongfang Li, Jilu Wang, and Jiwei Zhang. Unconditionally convergent $L1$ -galerkin FEMs for nonlinear time-fractional Schrödinger equations. *SIAM Journal on Scientific Computing*, 39(6):A3067–A3088, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [LX08] **Laub:2008:SCE**
 A. J. Laub and J. Xia. Statistical condition estimation for the roots of polynomials. *SIAM Journal on Scientific Computing*, 31(1):624–643, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LX12] **Li:2012:CFP**
 Jing Li and Dongbin Xiu. Computation of failure probability subject to epistemic uncertainty. *SIAM Journal on Scientific Computing*, 34(6):A2946–A2964, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LX14] **Li:2014:SBM**
 Jing Li and Dongbin Xiu. Surrogate based method for evaluation of failure probability under multiple constraints. *SIAM Journal on Scientific Computing*, 36(2):A828–A845, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LX16a] **Liu:2016:IPD**
 Hailiang Liu and Yulong Xing. An invariant preserving discontinuous Galerkin method for the Camassa–Holm equation. *SIAM Journal on Scientific Computing*, 38(4):A1919–A1934, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LX16b] **Lu:2016:RMM**
 Peipei Lu and Xuejun Xu. A robust multilevel method for the time-harmonic Maxwell equation with high wave number. *SIAM Journal on Scientific Computing*, 38(2):A856–A874, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LX16c] **Lv:2016:EAH**
 Chunwan Lv and Chuanju Xu. Error analysis of a high order method for time-fractional diffusion equations. *SIAM Journal on Scientific Computing*, 38(5):A2699–A2724, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXdH16] **Liu:2016:PRM**
 Xiao Liu, Jianlin Xia, and Maarten V. de Hoop. Parallel randomized and matrix-free direct solvers for large structured dense linear systems. *SIAM Journal on Scientific Computing*, 38(5):S508–S538, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXdH20] **Liu:2020:FFU**
 Xiao Liu, Jianlin Xia, and Maarten de Hoop. Fast fac-

- torization update for general elliptic equations under multiple coefficient updates. *SIAM Journal on Scientific Computing*, 42(2): A1174–A1199, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXES19] Ruipeng Li, Yuanzhe Xi, Lucas Erlandson, and Yousef Saad. The Eigenvalues Slicing Library (EVSL): Algorithms, implementation, and software. *SIAM Journal on Scientific Computing*, 41(4): C393–C415, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXG⁺21] Yang Liu, Xin Xing, Han Guo, Eric Michielssen, Pieter Ghysels, and Xiaoye Sherry Li. Butterfly factorization via randomized matrix-vector multiplications. *SIAM Journal on Scientific Computing*, 43(2):A883–A907, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXK08] T. G. Liu, W. F. Xie, and B. C. Khoo. The modified ghost fluid method for coupling of fluid and structure constituted with hydro-elasto-plastic equation of state. *SIAM Journal on Scientific Computing*, 30(3): 1105–1130, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LXL11] Jun Luo, Kun Xu, and Na Liu. A well-balanced symplecticity-preserving gas-kinetic scheme for hydrodynamic equations under gravitational field. *SIAM Journal on Scientific Computing*, 33(5):2356–2381, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2356_s1
- [LXS⁺08] T. Lu, Z. L. Xu, R. Samulyak, J. Glimm, and X. M. Ji. Dynamic phase boundaries for compressible fluids. *SIAM Journal on Scientific Computing*, 30(2):895–915, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:2019:ESL**Luo:2011:WBS****Liu:2021:BFR****Lu:2008:DPB****Liu:2008:MGF****Li:2016:TRL**

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lu:2023:HAP

- [LXYZ23] Wangtao Lu, Liwei Xu, Tao Yin, and Lu Zhang. A highly accurate perfectly-matched-layer boundary integral equation solver for acoustic layered-medium problems. *SIAM Journal on Scientific Computing*, 45(4):B523–B543, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1532457>. [LY13]

Li:2020:RBM

- [LXZ20] Lei Li, Zhenli Xu, and Yue Zhao. A random-batch Monte Carlo method for many-body systems with singular kernels. *SIAM Journal on Scientific Computing*, 42(3):A1486–A1509, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LY14]

Lin:1998:IPM

- [LY98] Ping Lin and Daoqi Yang. An iterative perturbation method for the pressure equation in the simulation of miscible displacement in porous media. *SIAM Journal on Scientific Computing*, 19(3):893–911, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 [LY17]

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28225>.

Lin:2013:EPA

Lin Lin and Chao Yang. Elliptic preconditioner for accelerating the self-consistent field iteration in Kohn–Sham density functional theory. *SIAM Journal on Scientific Computing*, 35(5):S277–S298, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2014:MPS

Hailiang Liu and Hui Yu. Maximum-principle-satisfying third order discontinuous Galerkin schemes for Fokker–Planck equations. *SIAM Journal on Scientific Computing*, 36(5):A2296–A2325, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Liu:2016:RSP

Fei Liu and Lexing Ying. Recursive sweeping preconditioner for the three-dimensional Helmholtz equation. *SIAM Journal on Scientific Computing*, 38(2):A814–A832, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:2017:IBF

Yingzhou Li and Haizhao Yang. Interpolative butter-

- fly factorization. *SIAM Journal on Scientific Computing*, 39(2):A503–A531, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [LYL⁺11]
- [LY18] Fei Liu and Lexing Ying. Sparsify and sweep: an efficient preconditioner for the Lippmann–Schwinger equation. *SIAM Journal on Scientific Computing*, 40(2):B379–B404, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Liu:2018:SSE]
- [LY20] Ruo Li and Fanyi Yang. A discontinuous Galerkin method by patch reconstruction for elliptic interface problem on unfitted mesh. *SIAM Journal on Scientific Computing*, 42(2):A1428–A1457, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Li:2020:DGMB]
- [LY22] Meng Liu and Jiaqing Yang. The sampling method for inverse exterior Stokes problems. *SIAM Journal on Scientific Computing*, 44(3):B429–B456, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1390591>. [Liu:2022:SMI]
- [LYLC17] Hao Liu, Zhigang Yao, Shingyu Leung, and Tony F. Chan. A level set based variational principal flow method for nonparametric dimension reduction on Riemannian manifolds. *SIAM Journal on Scientific Computing*, 39(4):A1616–A1646, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Lin:2017:LSB]
- [LYLC21] Jialin Liu, Wotao Yin, Wuchen Li, and Yat Tin Chow. Multilevel optimal transport: a fast approximation of Wasserstein-1 distances. *SIAM Journal on Scientific Computing*, 43(1):A193–A220, 2021. CO-
- [Lin:2011:FPA] Lin Lin, Chao Yang, Jianfeng Lu, Lexing Ying, and Weinan E. A fast parallel algorithm for selected inversion of structured sparse matrices with application to 2D electronic structure calculations. *SIAM Journal on Scientific Computing*, 33(3):1329–1351, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1329_s1.

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Li:1994:LIS**
- [LZ94] T. Y. Li and Zhong Gang Zeng. The Laguerre iteration in solving the symmetric tridiagonal eigenproblem, revisited. *SIAM Journal on Scientific Computing*, 15(5): 1145–1173, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Lyon:2011:FAF**
- [Lyo11] Mark Lyon. A fast algorithm for Fourier continuation. *SIAM Journal on Scientific Computing*, 33(6): 3241–3260, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i6/p3241_s1
- Li:2020:AH0**
- [LZ99a] T. Y. Li and Zhonggang Zeng. The homotopy continuation algorithm for the real nonsymmetric eigenproblem: Further development and implementation. *SIAM Journal on Scientific Computing*, 20(5): 1627–1651, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31822>.
- [LYZ20] Buyang Li, Jiang Yang, and Zhi Zhou. Arbitrarily high-order exponential cut-off methods for preserving maximum principle of parabolic equations. *SIAM Journal on Scientific Computing*, 42(6): A3957–A3978, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Liu:2023:CAG**
- [LYZ23] Wei Liu, Yongjun Yuan, and Xiaofei Zhao. Computing the action ground state for the rotating nonlinear Schrödinger equation. *SIAM Journal on Scientific Computing*, 45(2):A397–A426, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M148416X>.
- Li:1999:HCA**
- [LZ99b] T. Y. Li and Xiulin Zou. Implementing the parallel quasi-Laguerre’s algorithm for symmetric tridiagonal eigenproblems. *SIAM Journal on Scientific Computing*, 20(6): 1954–1963, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31058>.
- Li:1999:IPQ**

- [LZ01] **Li:2001:MMF**
 Yongxin Li and Jianxin Zhou. A minimax method for finding multiple critical points and its applications to semi-linear PDEs. *SIAM Journal on Scientific Computing*, 23(3):840–865, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36564>.
- [LZ02] **Li:2002:CRL**
 Yongxin Li and Jianxin Zhou. Convergence results of a local minimax method for finding multiple critical points. *SIAM Journal on Scientific Computing*, 24(3):865–885, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37973>.
- [LZ04] **Lu:2004:CSU**
 Zhiming Lu and Dongxiao Zhang. A comparative study on uncertainty quantification for flow in randomly heterogeneous media using Monte Carlo simulations and conventional and KL-based moment-equation approaches. *SIAM Journal on Scientific Computing*, 26(2):558–577, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42682>.
- [LZ13a] **Liang:2013:SPD**
 Jian Liang and Hongkai Zhao. Solving partial differential equations on point clouds. *SIAM Journal on Scientific Computing*, 35(3):A1461–A1486, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ13b] **Lin:2013:EMF**
 Hongwei Lin and Zhiyu Zhang. An efficient method for fitting large data sets using T -splines. *SIAM Journal on Scientific Computing*, 35(6):A3052–A3068, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ16] **Li:2016:OPS**
 Lingfei Li and Gongqiu Zhang. Option pricing in some non-Lévy jump models. *SIAM Journal on Scientific Computing*, 38(4):B539–B569, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ17a] **Lechleiter:2017:FBT**
 Armin Lechleiter and Ruming Zhang. A Floquet–Bloch transform based numerical method for scattering

- from locally perturbed periodic surfaces. *SIAM Journal on Scientific Computing*, 39(5):B819–B839, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ17b] **Li:2017:ESS**
Huiyuan Li and Zhimin Zhang. Efficient spectral and spectral element methods for eigenvalue problems of Schrödinger equations with an inverse square potential. *SIAM Journal on Scientific Computing*, 39(1):A114–A140, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ20] **Li:2020:VSM**
Qiuqi Li and Pingwen Zhang. A variable-separation method for nonlinear partial differential equations with random inputs. *SIAM Journal on Scientific Computing*, 42(2):A723–A750, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ21a] **Langer:2021:EDS**
Ulrich Langer and Marco Zank. Efficient direct space-time finite element solvers for parabolic initial-boundary value problems in anisotropic Sobolev spaces. *SIAM Journal on Scientific Computing*, 43(4):A2714–A2736, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ21b] **Li:2021:AAT**
Yukun Li and Yi Zhang. Analysis of adaptive two-grid finite element algorithms for linear and nonlinear problems. *SIAM Journal on Scientific Computing*, 43(2):A908–A928, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [LZ23] **Li:2023:SOS**
Jiajie Li and Shengfeng Zhu. Shape optimization of the Stokes eigenvalue problem. *SIAM Journal on Scientific Computing*, 45(2):A798–A828, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1451543>.
- [LZG20] **Lama:2020:HOM**
Sonam Lama, John Zweck, and Matthew Goeckner. A higher order moment preserving reduction scheme for the stochastic weighted particle method. *SIAM Journal on Scientific Computing*, 42(5):A2889–A2909, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lischke:2017:PGS

[LZK17]

Anna Lischke, Mohsen Zayernouri, and George Em Karniadakis. A Petrov–Galerkin spectral method of linear complexity for fractional multiterm ODEs on the half line. *SIAM Journal on Scientific Computing*, 39(3):A922–A946, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Lam:2020:MDR

[LZMW20]

Remi R. Lam, Olivier Zahm, Youssef M. Marzouk, and Karen E. Willcox. Multifidelity dimension reduction via active subspaces. *SIAM Journal on Scientific Computing*, 42(2):A929–A956, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Li:2018:SEA

[LZZ18]

Buyang Li, Jiwei Zhang, and Chunxiong Zheng. Stability and error analysis for a second-order fast approximation of the one-dimensional Schrödinger equation under absorbing boundary conditions. *SIAM Journal on Scientific Computing*, 40(6):A4083–A4104, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Maire:2007:CCL

[MABO07]

Pierre-Henri Maire, Rémi Abgrall, Jérôme Breil, and Jean Ovdia. A cell-centered Lagrangian scheme for two-dimensional compressible flow problems. *SIAM Journal on Scientific Computing*, 29(4):1781–1824, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mackenzie:1998:EGS

[Mac98]

J. A. Mackenzie. The efficient generation of simple two-dimensional adaptive grids. *SIAM Journal on Scientific Computing*, 19(4):1340–1365, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27106>.

Montanelli:2022:CWS

[MAH22]

Hadrien Montanelli, Matthieu Aussal, and Houssein Hadidar. Computing weakly singular and near-singular integrals over curved boundary elements. *SIAM Journal on Scientific Computing*, 44(6):A3728–A3753, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1462027>.

- [MAK20] **Moxey:2020:EMF**
David Moxey, Roman Amici, and Mike Kirby. Efficient matrix-free high-order finite element evaluation for simplicial elements. *SIAM Journal on Scientific Computing*, 42(3):C97–C123, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mal07] **Malinen:2007:BCS**
Mika Malinen. Boundary conditions in the Schur complement preconditioning of dissipative acoustic equations. *SIAM Journal on Scientific Computing*, 29(4):1567–1592, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Man95] **Mannseth:1995:ARS**
Trond Mannseth. An analysis of the robustness of some incomplete factorizations. *SIAM Journal on Scientific Computing*, 16(6):1428–1450, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Man99] **Mante:1999:URM**
Claude Manté. The use of regularization methods in computing Radon–Nikodým derivatives. application to grain-size distributions. *SIAM Journal on Scientific Computing*, 21(2):455–472, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31937>.
- [Man05] **Mannella:2005:NSI**
R. Mannella. Numerical stochastic integration for quasi-symplectic flows. *SIAM Journal on Scientific Computing*, 27(6):2121–2139, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_62096.html.
- [Mar94] **Marquina:1994:LPH**
Antonio Marquina. Local piecewise hyperbolic reconstruction of numerical fluxes for nonlinear scalar conservation laws. *SIAM Journal on Scientific Computing*, 15(4):892–915, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mar01] **Marcozzi:2001:AOS**
Michael D. Marcozzi. On the approximation of optimal stopping problems with application to financial mathematics. *SIAM Journal on Scientific Computing*, 22(5):1865–1884, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36464>.

- [Mar03] **Marcozzi:2003:VAO**
 Michael D. Marcozzi. On the valuation of Asian options by variational methods. *SIAM Journal on Scientific Computing*, 24(4): 1124–1140, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38816>.
- [Mar09] **Martin:2009:SWR**
 Véronique Martin. Schwarz waveform relaxation algorithms for the linear viscous equatorial shallow water equations. *SIAM Journal on Scientific Computing*, 31(5): 3595–3625, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mar16] **Martinsson:2016:CRS**
 Per-Gunnar Martinsson. Compressing rank-structured matrices via randomized sampling. *SIAM Journal on Scientific Computing*, 38(4): A1959–A1986, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mat95] **Mathias:1995:IPP**
 Roy Mathias. The instability of parallel prefix matrix multiplication. *SIAM Journal on Scientific Computing*, 16(4):956–973, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mat18] **Matthews:2018:HPT**
 Devin A. Matthews. High-performance tensor contraction without transposition. *SIAM Journal on Scientific Computing*, 40(1):C1–C24, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mau95] **Maubach:1995:LBR**
 Joseph M. Maubach. Local bisection refinement for N-simplicial grids generated by reflection. *SIAM Journal on Scientific Computing*, 16(1): 210–227, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [May05] **Mayer:2005:AWD**
 Jan Mayer. Alternative weighted dropping strategies for ILUTP. *SIAM Journal on Scientific Computing*, 27(4): 1424–1437, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60202.html.
- [May08] **Mayer:2008:SPM**
 Jan Mayer. Symmetric permutations for I -matrices to delay and avoid small pivots during factorization. *SIAM Journal on Scientific Computing*, 30(2):982–996, 2008.

2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mastronardi:1999:CSE

[MB99]

Nicola Mastronardi and Daniel Boley. Computing the smallest eigenpair of a symmetric positive definite Toeplitz matrix. *SIAM Journal on Scientific Computing*, 20(5):1921–1927, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32229>.

Martinson:2000:DIP

[MB00]

Wade S. Martinson and Paul I. Barton. A differentiation index for partial differential-algebraic equations. *SIAM Journal on Scientific Computing*, 21(6):2295–2315, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33222>.

Martinson:2002:ICA

[MB02]

Wade S. Martinson and Paul I. Barton. Index and characteristic analysis of linear PDAE systems. *SIAM Journal on Scientific Computing*, 24(3):905–923, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36341>.

May:2013:TDS

[MB13]

Sandra May and Marsha Berger. Two-dimensional slope limiters for finite volume schemes on non-coordinate-aligned meshes. *SIAM Journal on Scientific Computing*, 35(5):A2163–A2187, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mang:2017:SLT

[MB17]

Andreas Mang and George Biros. A semi-Lagrangian two-level preconditioned Newton–Krylov solver for constrained diffeomorphic image registration. *SIAM Journal on Scientific Computing*, 39(6):B1064–B1101, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Monge:2019:MNN

[MB19]

Azahar Monge and Philipp Birken. A multirate Neumann–Neumann waveform relaxation method for heterogeneous coupled heat equations. *SIAM Journal on Scientific Computing*, 41(5):S86–S105, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MBGV16] **Marple:2016:FAS** Gary R. Marple, Alex Barnett, Adrianna Gillman, and Shravan Veerapaneni. A fast algorithm for simulating multiphase flows through periodic geometries of arbitrary shape. *SIAM Journal on Scientific Computing*, 38(5):B740–B772, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MBKR22] **Maclean:2022:ADA** John Maclean, J. E. Bunder, I. G. Kevrekidis, and A. J. Roberts. Adaptively detect and accurately resolve macro-scale shocks in an efficient equation-free multiscale simulation. *SIAM Journal on Scientific Computing*, 44(4):A2557–A2581, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1437172>.
- [MBM⁺16] **McRae:2016:AGS** A. T. T. McRae, G.-T. Bercea, L. Mitchell, D. A. Ham, and C. J. Cotter. Automated generation and symbolic manipulation of tensor product finite elements. *SIAM Journal on Scientific Computing*, 38(5):S25–S47, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MBS22] **Mortier:2022:KDA** Bert Mortier, Martine Baelmans, and Giovanni Samaey. A kinetic-diffusion asymptotic-preserving Monte Carlo algorithm for the Boltzmann–BGK model in the diffusive scaling. *SIAM Journal on Scientific Computing*, 44(2):A720–A744, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1381526>.
- [MBT21] **McCormick:2021:AEA** Stephen F. McCormick, Joseph Benzaken, and Rasmus Tamstorf. Algebraic error analysis for mixed-precision multigrid solvers. *SIAM Journal on Scientific Computing*, 43(5):S392–S419, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MBVO13] **Metivier:2013:FWI** L. Métivier, R. Brossier, J. Virieux, and S. Operto. Full waveform inversion and the truncated Newton method. *SIAM Journal on Scientific Computing*, 35(2):B401–B437, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MBVOT22] **Mayr:2022:NMS** Matthias Mayr, Luc Berger-Vergiat, Peter Ohm, and

- Ray S. Tuminaro. NonInvasive multigrid for SemiStructured grids. *SIAM Journal on Scientific Computing*, 44(4):A2734–A2764, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1375413>. [MC10]
- Morokoff:1994:QRS**
- [MC94] William J. Morokoff and Russel E. Caffisch. Quasi-random sequences and their discrepancies. *SIAM Journal on Scientific Computing*, 15(6):1251–1279, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MCB18]
- Milovanovic:2005:GTQ**
- [MC05] Gradimir V. Milovanovic and Aleksandar S. Cvetkovic. Gaussian-type quadrature rules for Müntz systems. *SIAM Journal on Scientific Computing*, 27(3):893–913, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/62153>. [McG95]
- Martin:2009:RRS**
- [MC09] Jacob G. Martin and E. Rodney Canfield. Ranks and representations for spectral graph bisection. *SIAM Journal on Scientific Computing*, 31(5):3529–3546, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Mattsson:2010:SAI]
- K. Mattsson and Mark H. Carpenter. Stable and accurate interpolation operators for high-order multi-block finite difference methods. *SIAM Journal on Scientific Computing*, 32(4):2298–2320, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [McRae:2018:OTB]
- Andrew T. T. McRae, Colin J. Cotter, and Chris J. Budd. Optimal-transport-based mesh adaptivity on the plane and sphere using finite elements. *SIAM Journal on Scientific Computing*, 40(2):A1121–A1148, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [McGillen:1995:PSI]
- Donald J. McGillen. A particle scheme incorporating an elliptic approximation for the relativistic Vlasov–Maxwell system. *SIAM Journal on Scientific Computing*, 16(6):1333–1348, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MCJN94] **Mittelmann:1994:ISE**
 Hans D. Mittelmann, K.-T. Chang, D. F. Jankowski, and G. P. Neitzel. Iterative solution of the eigenvalue problem in Hopf bifurcation for the Boussinesq equations. *SIAM Journal on Scientific Computing*, 15(3):704–712, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [MCL95] **McLachlan:1995:NIO**
 Robert I. McLachlan. On the numerical integration of ordinary differential equations by symmetric composition methods. *SIAM Journal on Scientific Computing*, 16(1):151–168, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MCL07] **McLachlan:2007:NIS**
 Robert I. McLachlan. A new implementation of symplectic Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 29(4):1637–1649, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MCL12] **McLean:2012:FSI**
 William McLean. Fast summation by interval clustering for an evolution equation with memory. *SIAM Journal on Scientific Computing*, 34(6):A3039–A3056, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MCL19] **Ma:2019:MAC**
 Chupeng Ma, Liqun Cao, and Yanping Lin. Multiscale algorithms and computations for the time-dependent Maxwell–Schrödinger system in heterogeneous nanostructures. *SIAM Journal on Scientific Computing*, 41(2):A1091–A1120, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MCT+05] **Mangiavacchi:2005:EIS**
 Norberto Mangiavacchi, Antonio Castelo, Murilo F. Tomé, José A. Cuminato, Maria Luísa Bambozzi de Oliveira, and Sean McKee. An effective implementation of surface tension using the marker and cell method for axisymmetric and planar flows. *SIAM Journal on Scientific Computing*, 26(4):1340–1368, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42718>.
- [MCV17] **Myers:2017:OPC**
 A. Myers, P. Colella, and B. Van Straalen. A 4th-order particle-in-cell method

with phase-space remapping for the Vlasov–Poisson equation. *SIAM Journal on Scientific Computing*, 39(3):B467–B485, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

MohammadiArani:2022:POD

- [MDA22] Reza MohammadiArani, Mehdi Dehghan, and Mostafa Abbaszadeh. Proper orthogonal Decomposition–Lattice Boltzmann method: Simulating the air pollutant problem in street canyon areas. *SIAM Journal on Scientific Computing*, 44(4):B885–B909, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1405733>.

Mu:1998:NMS

- [MDC98] Mo Mu, Yuefan Deng, and Chung-Chiang Chou. Numerical methods for simulating Ginzburg–Landau vortices. *SIAM Journal on Scientific Computing*, 19(4):1333–1339, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29507>.

Murtagh:2008:HCM

- [MDC08] Fionn Murtagh, Geoff Downs, and Pedro Contreras. Hierar-

chical clustering of massive, high dimensional data sets by exploiting ultrametric embedding. *SIAM Journal on Scientific Computing*, 30(2):707–730, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Morzfeld:2018:IIS

[MDG⁺18] Matthias Morzfeld, Marcus S. Day, Ray W. Grout, George Shu Heng Pau, Stefan A. Festerle, and John B. Bell. Iterative importance sampling algorithms for parameter estimation. *SIAM Journal on Scientific Computing*, 40(2):B329–B352, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mironowicz:2015:TSA

[MDM15] P. Mironowicz, A. Dziekonski, and M. Mrozowski. A task-scheduling approach for efficient sparse symmetric matrix-vector multiplication on a GPU. *SIAM Journal on Scientific Computing*, 37(6):C643–C666, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Meerbergen:2001:LRQ

- [Mee01] Karl Meerbergen. Locking and restarting quadratic eigenvalue solvers. *SIAM Journal on Scientific Computing*, 22(5):1814–1839, September

- ber 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35174>. [Men22]
- [MEF09] Svend Tollak Munkejord, Steinar Evje, and Tore Flåtten. A MUSTA scheme for a nonconservative two-fluid model. *SIAM Journal on Scientific Computing*, 31(4):2587–2622, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Meu01]
- [MEHL16] Lina Meinecke, Stefan Engblom, Andreas Hellander, and Per Lötstedt. Analysis and design of jump coefficients in discrete stochastic diffusion models. *SIAM Journal on Scientific Computing*, 38(1):A55–A83, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Meu11]
- [Men94] Ralph Menikoff. Errors when shock waves interact due to numerical shock width. *SIAM Journal on Scientific Computing*, 15(5):1227–1242, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MF06]
- Mengi:2022:LSE**
Emre Mengi. Large-scale estimation of dominant poles of a transfer function by an interpolatory framework. *SIAM Journal on Scientific Computing*, 44(4):A2412–A2438, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434349>.
- Meurant:2001:ICD**
G erard Meurant. On the incomplete Cholesky decomposition of a class of perturbed matrices. *SIAM Journal on Scientific Computing*, 23(2):419–429, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37124>.
- Meurant:2011:ENE**
G erard Meurant. Estimates of the norm of the error in solving linear systems with FOM and GMRES. *SIAM Journal on Scientific Computing*, 33(5):2686–2705, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2686_s1.
- Ma:2006:CCR**
Jianwei Ma and Markus Fenn. Combined complex

- ridgelet shrinkage and total variation minimization. *SIAM Journal on Scientific Computing*, 28(3):984–1000, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62737.html.
- [MFJ19] Victor A. Paludetto Magri, Andrea Franceschini, and Carlo Janna. A novel algebraic multigrid approach based on adaptive smoothing and prolongation for ill-conditioned systems. *SIAM Journal on Scientific Computing*, 41(1):A190–A219, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MFGP18] Byron E. Moutafis, Christos K. Filelis-Papadopoulos, and George A. Gravvanis. Parallel Schur complement techniques based on multi-projection methods. *SIAM Journal on Scientific Computing*, 40(4):C634–C654, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MFSY19] Thierry A. Mara, Marwan Fahs, Qian Shao, and Anis Younes. Random sampling from joint probability distributions defined in a Bayesian framework. *SIAM Journal on Scientific Computing*, 41(1):A316–A338, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MFY23] Victor A. P. Magri, Robert D. Falgout, and Ulrike M. Yang. A new semistructured algebraic multigrid method. *SIAM Journal on Scientific Computing*, 45(3):S439–S460, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434118>.
- [MG07] Tahîr Malas and Levent Gürel. Incomplete LU preconditioning with the multi-level fast multipole algorithm for electromagnetic scattering. *SIAM Journal on Scientific Computing*, 29(4):1476–1494, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MG09] Tahîr Malas and Levent Gürel. Accelerating the multilevel fast multipole algorithm with the Sparse-Approximate-Inverse (SAI) preconditioning. *SIAM Journal on Scientific Computing*, 31(3):1968–1984, ??? 2009. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Malas:2011:SCP

[MG11]

Tahír Malas and Levent Gürel. Schur complement preconditioners for surface integral-equation formulations of dielectric problems solved with the multilevel fast multipole algorithm. *SIAM Journal on Scientific Computing*, 33(5):2440–2467, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2440_s1

Michiels:2012:IMC

[MG12]

Wim Michiels and Nicola Guglielmi. An iterative method for computing the pseudospectral abscissa for a class of nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 34(4):A2366–A2393, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mlinarić:2023:LOR

[MG23]

Petar Mlinarić and Serkan Gugercin. \mathcal{L}_ε -optimal reduced-order modeling using parameter-separable forms. *SIAM Journal on Scientific Computing*, 45(2):A554–A578, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1500678>.

[//epubs.siam.org/doi/10.1137/22M1500678](https://epubs.siam.org/doi/10.1137/22M1500678).

Magoules:2018:APT

[MGB18]

Frédéric Magoules and Guillaume Gbikpi-Benissan. Asynchronous parareal time discretization for partial differential equations. *SIAM Journal on Scientific Computing*, 40(6):C704–C725, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mang:2019:CDM

[MGDB19]

Andreas Mang, Amir Gholami, Christos Davatzikos, and George Biros. CLAIRE: a distributed-memory solver for constrained large deformation diffeomorphic image registration. *SIAM Journal on Scientific Computing*, 41(5):C548–C584, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Maddison:2019:ACH

[MGG19]

James R. Maddison, Daniel N. Goldberg, and Benjamin D. Goddard. Automated calculation of higher order partial differential equation constrained derivative information. *SIAM Journal on Scientific Computing*, 41(5):C417–C445, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MGH21] **Mulita:2021:QOM**
Ornela Mulita, Stefano Gi-
ani, and Luca Heltai. Quasi-
optimal mesh sequence con-
struction through smoothed
adaptive finite element meth-
ods. *SIAM Journal on
Scientific Computing*, 43(3):
A2211–A2241, 2021. CO-
DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197
(electronic).
- [MGW00] **Murphy:2000:NPI**
Malcolm F. Murphy, Gene H.
Golub, and Andrew J. Wat-
hen. A note on precondition-
ing for indefinite linear
systems. *SIAM Journal on
Scientific Computing*, 21(6):
1969–1972, November 2000.
CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197
(electronic). URL [http://
epubs.siam.org/sam-bin/
dbq/article/35515](http://epubs.siam.org/sam-bin/dbq/article/35515).
- [MH95] **Manne:1995:ESC**
Fredrik Manne and Hjalmtýr
Hafsteinsson. Efficient sparse
Cholesky factorization on a
massively parallel SIMD com-
puter. *SIAM Journal on
Scientific Computing*, 16(4):
934–950, July 1995. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic).
- [MH16] **Matthysen:2016:FAC**
Roel Matthysen and Daan
Huybrechs. Fast algo-
rithms for the computation
of Fourier extensions of arbi-
trary length. *SIAM Journal
on Scientific Computing*, 38
(2):A899–A922, 2016. CO-
DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197
(electronic).
- [MH17] **Maddison:2017:OCI**
J. R. Maddison and H. R.
Hiester. Optimal con-
strained interpolation in
mesh-adaptive finite element
modeling. *SIAM Journal on
Scientific Computing*, 39(5):
A2257–A2286, 2017. CO-
DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197
(electronic).
- [MHL⁺15] **Malas:2015:MOW**
T. Malas, G. Hager, H. Ltaief,
H. Stengel, G. Wellein,
and D. Keyes. Multicore-
optimized wavefront diamond
blocking for optimizing stencil
updates. *SIAM Journal on
Scientific Computing*, 37(4):
C439–C464, 2015. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic).
- [MHR20] **May:2020:SSP**
Ian C. T. May, Ronald D.
Haynes, and Steven J. Ru-
uth. Schwarz solvers and pre-
conditioners for the closest
point method. *SIAM Journal
on Scientific Computing*, 42
(6):A3584–A3609, 2020. CO-
DEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Mulholland:1998:PSN

[MHS98]

L. S. Mulholland, W.-Z. Huang, and D. M. Sloan. Pseudospectral solution of near-singular problems using numerical coordinate transformations based on adaptivity. *SIAM Journal on Scientific Computing*, 19(4):1261–1289, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29198>.

Mei:2022:EPC

[MHW22]

Lijie Mei, Li Huang, and Xinyuan Wu. Energy-preserving continuous-stage exponential Runge–Kutta integrators for efficiently solving Hamiltonian systems. *SIAM Journal on Scientific Computing*, 44(3):A1092–A1115, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1412475>.

Micheletti:2001:SMF

[Mic01]

Stefano Micheletti. On some mixed finite element methods with numerical integration. *SIAM Journal on Scientific Computing*, 23(1):245–270, January 2001. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34878>.

Minkoff:2002:SPF

[Min02]

Susan E. Minkoff. Spatial parallelism of a 3D finite difference velocity-stress elastic wave propagation code. *SIAM Journal on Scientific Computing*, 24(1):1–19, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39096>.

Mirzaei:2021:DRB

[Mir21]

Davoud Mirzaei. The direct radial basis function partition of unity (D-RBF-PU) method for solving PDEs. *SIAM Journal on Scientific Computing*, 43(1):A54–A83, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Misawa:2001:LAA

[Mis01]

Tetsuya Misawa. A Lie algebraic approach to numerical integration of stochastic differential equations. *SIAM Journal on Scientific Computing*, 23(3):866–890, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37024>.

- [MIS03] **Ma:2003:VRR**
 Qun Ma, Jesús A. Izaguirre, and Robert D. Skeel. Verlet–I/R–RESPA/impulse is limited by nonlinear instabilities. *SIAM Journal on Scientific Computing*, 24(6):1951–1973, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39983>.
- [Mit08] **Mitchell:2008:SRG**
 Julie C. Mitchell. Sampling rotation groups by successive orthogonal images. *SIAM Journal on Scientific Computing*, 30(1):525–547, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mit23] **Mitchell:2023:CRA**
 Tim Mitchell. Convergence rate analysis and improved iterations for numerical radius computation. *SIAM Journal on Scientific Computing*, 45(2):A753–A780, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1455826>.
- [MJR05] **Martin:2005:MFB**
 Vincent Martin, Jérôme Jaffré, and Jean E. Roberts. Modeling fractures and barriers as interfaces for flow in porous media. *SIAM Journal on Scientific Computing*, 26(5):1667–1691, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42936>.
- [MK93] **Munthe-Kaas:1993:SF**
 Hans Munthe-Kaas. Superparallel FFTs. *SIAM Journal on Scientific Computing*, 14(2):349–367, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MK96] **Mikula:1996:ECP**
 Karol Mikula and Jozef Kačur. Evolution of convex plane curves describing anisotropic motions of phase interfaces. *SIAM Journal on Scientific Computing*, 17(6):1302–1327, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26190>.
- [MK00] **Markman:2000:IAS**
 Jerry Markman and I. Norman Katz. An iterative algorithm for solving Hamilton–Jacobi type equations. *SIAM Journal on Scientific Computing*, 22(1):312–329, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26190>.

- `/epubs.siam.org/sam-bin/dbq/article/34431.`
- [MK08] **Mehra:2008:AMW** Mani Mehra and Nicholas K.-R. Kevlahan. An adaptive multilevel wavelet solver for elliptic equations on an optimal spherical geodesic grid. *SIAM Journal on Scientific Computing*, 30(6):3073–3086, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MKB22] **Menzen:2022:ALS** Clara Menzen, Manon Kok, and Kim Batselier. Alternating linear scheme in a Bayesian framework for low-rank tensor approximation. *SIAM Journal on Scientific Computing*, 44(3):A1116–A1144, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1386414>.
- [MKRK13] **Mirzaee:2013:SIA** Hanieh Mirzaee, James King, Jennifer K. Ryan, and Robert M. Kirby. Smoothness-increasing accuracy-conserving filters for discontinuous Galerkin solutions over unstructured triangular meshes. *SIAM Journal on Scientific Computing*, 35(1):A212–A230, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MKSG10] **Manguoglu:2010:WMO** Murat Manguoglu, Mehmet Koyutürk, Ahmed H. Sameh, and Ananth Grama. Weighted matrix ordering and parallel banded preconditioners for iterative linear system solvers. *SIAM Journal on Scientific Computing*, 32(3):1201–1216, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MKW23] **McQuarrie:2023:NRO** Shane A. McQuarrie, Parisa Khodabakhshi, and Karen E. Willcox. Nonintrusive reduced-order models for parametric partial differential equations via data-driven operator inference. *SIAM Journal on Scientific Computing*, 45(4):A1917–A1946, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452810>.
- [MKWG15] **Mayr:2015:TCM** Matthias Mayr, Thomas Klöppel, Wolfgang A. Wall, and Michael W. Gee. A temporal consistent monolithic approach to fluid-structure interaction enabling single field predictors. *SIAM Journal on Scientific Computing*, 37(1):B30–B59, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [ML11] **Mazzi:2011:DRC**
 Giacomo Mazzi and Benedict J. Leimkuhler. Dimensional reductions for the computation of time-dependent quantum expectations. *SIAM Journal on Scientific Computing*, 33(4):2024–2038, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i4/p2024_s1
- [MLL13] **Massing:2013:EIF**
 André Massing, Mats G. Larson, and Anders Logg. Efficient implementation of finite element methods on nonmatching and overlapping meshes in three dimensions. *SIAM Journal on Scientific Computing*, 35(1):C23–C47, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MM95] **Monga-Made:1995:OSM**
 Magolu Monga-Made. Ordering strategies for modified block incomplete factorizations. *SIAM Journal on Scientific Computing*, 16(2):378–399, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MM98] **Monga-Made:1998:TAP**
 Magolu Monga-Made. Taking advantage of the poten-
- [MM07] **Mustapha:2007:NAS**
 Hussein Mustapha and Kassem Mustapha. A new approach to simulating flow in discrete fracture networks with an optimized mesh. *SIAM Journal on Scientific Computing*, 29(4):1439–1459, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MM13] **MacLachlan:2013:RSS**
 Scott MacLachlan and Niall Madden. Robust solution of singularly perturbed problems using multigrid methods. *SIAM Journal on Scientific Computing*, 35(5):A2225–A2254, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MM14] **Martin:2014:FFF**
 N. Martin and J. Monnier. Four-field finite element solver and sensitivities for quasi-Newtonian flows. *SIAM Journal on Scientific Computing*, 36(5):S132–S165, 2014. CODEN SJOCE3.
- tialities of dynamically modified block incomplete factorizations. *SIAM Journal on Scientific Computing*, 19(4):1083–1108, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26628>.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Manguoglu:2019:RIS

- [MM19] Murat Manguoglu and Volker Mehrmann. A robust iterative scheme for symmetric indefinite systems. *SIAM Journal on Scientific Computing*, 41(3):A1733–A1752, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Moulton:1998:ASC

- [MMA98] J. David Moulton, Jim E. Morel, and Uri M. Ascher. Approximate Schur complement preconditioning of the lowest-order nodal discretizations. *SIAM Journal on Scientific Computing*, 19(1):185–205, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30349>.

Marchena-Menendez:2023:ASM

- [MMK23] Jorge Marchena-Menendez and Robert C. Kirby. Additive Schwarz methods for serendipity elements. *SIAM Journal on Scientific Computing*, 45(3):S401–S420, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1415674>.

[MMM⁺94]

Manteuffel:1994:PVM

T. Manteuffel, S. McCormick, J. Morel, S. Oliveira, and G. Yang. A parallel version of a multigrid algorithm for isotropic transport equations. *SIAM Journal on Scientific Computing*, 15(2):474–493, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

Manteuffel:1995:FMA

[MMM⁺95]

T. Manteuffel, S. McCormick, J. Morel, S. Oliveira, and G. Yang. A fast multigrid algorithm for isotropic transport problems. I. pure scattering. *SIAM Journal on Scientific Computing*, 16(3):601–635, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Manteuffel:1996:FMA

[MMMY96]

T. Manteuffel, S. McCormick, J. Morel, and G. Yang. A fast multigrid algorithm for isotropic transport problems. II. with absorption. *SIAM Journal on Scientific Computing*, 17(6):1449–1474, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25143>.

- [MMN00] **Monga-Made:2000:DRB** Mardochée Magolu Monga-Made and Yvan Notay. Dynamically relaxed block incomplete factorizations for solving two- and three-dimensional problems. *SIAM Journal on Scientific Computing*, 21(6):2008–2028, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31159>.
- [MMRN15] **MacDonald:2015:EMM** Craig S. MacDonald, John A. Mackenzie, Alison Ramage, and Christopher J. P. Newton. Efficient moving mesh methods for Q -tensor models of nematic liquid crystals. *SIAM Journal on Scientific Computing*, 37(2):B215–B238, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MMPR93] **Maday:1993:AIM** Yvon Maday, Dan Meiron, Anthony T. Patera, and Einar M. Rønquist. Analysis of iterative methods for the steady and unsteady Stokes problem: application to spectral element discretizations. *SIAM Journal on Scientific Computing*, 14(2):310–337, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MMRS19] **Manteuffel:2019:NRB** Thomas A. Manteuffel, Stefan Münzenmaier, John Ruge, and Ben Southworth. Nonsymmetric reduction-based algebraic multigrid. *SIAM Journal on Scientific Computing*, 41(5):S242–S268, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MMS05] **Mitchell:2005:ABS** S. L. Mitchell, K. W. Morton, and A. Spence. Analysis of box schemes for reactive flow problems. *SIAM Journal on Scientific Computing*, 27(4):1202–1225, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60191.html.
- [MMR19] **Massei:2019:FST** Stefano Massei, Mariarosa Mazza, and Leonardo Robol. Fast solvers for two-dimensional fractional diffusion equations using rank structured matrices. *SIAM Journal on Scientific Computing*, 41(4):A2627–A2656, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MMS23] **Marshall:2023:FEH** Nicholas F. Marshall, Oscar Mickelin, and Amit Singer.

- Fast expansion into harmonics on the disk: a steerable basis with fast radial convolutions. *SIAM Journal on Scientific Computing*, 45(5): A2431–A2457, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1542775>.
- [MMZ03] **Marquez:2015:AMC** Antonio Márquez, Salim Meddahi, and Thanh Tran. Analyses of mixed continuous and discontinuous Galerkin methods for the time harmonic elasticity problem with reduced symmetry. *SIAM Journal on Scientific Computing*, 37(4):A1909–A1933, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MMT15] **Morano:1998:CSU** E. Morano, D. J. Mavriplis, and V. Venkatakrishnan. Coarsening strategies for unstructured multigrid techniques with application to anisotropic problems. *SIAM Journal on Scientific Computing*, 20(2):393–415, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28763>.
- [MMV98] **McLachlan:2013:SII** Robert I. McLachlan, Klas
- Modin, Olivier Verdier, and Matt Wilkins. Symplectic integrators for index 1 constraints. *SIAM Journal on Scientific Computing*, 35(5): A2150–A2162, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ma:2003:EFV** Xiuling Ma, Dong Mao, and Aihui Zhou. Extrapolation for finite volume approximations. *SIAM Journal on Scientific Computing*, 24(6): 1974–1993, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39833>.
- [MN07] **Mackenzie:2007:DGM** J. A. Mackenzie and A. Nicola. A discontinuous Galerkin moving mesh method for Hamilton–Jacobi equations. *SIAM Journal on Scientific Computing*, 29(6):2258–2282, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MN08] **Muresan:2008:AAB** Adrian C. Muresan and Yvan Notay. Analysis of aggregation-based multigrid. *SIAM Journal on Scientific Computing*, 30(2):1082–1103, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MN11] **Morgan:2011:RNL** Ronald B. Morgan and Dwayne A. Nicely. Restarting the nonsymmetric Lanczos algorithm for eigenvalues and linear equations including multiple right-hand sides. *SIAM Journal on Scientific Computing*, 33(5):3037–3056, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjocce3/v33/i5/p3037_s1 [MNP07]
- [MN18] **Montanelli:2018:FOT** Hadrien Montanelli and Yuji Nakatsukasa. Fourth-order time-stepping for stiff PDEs on the sphere. *SIAM Journal on Scientific Computing*, 40(1):A421–A451, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic) [MNR19]
- [MNBK10] **Man:2010:CAC** Peter L. W. Man, James R. Norris, Ismaël F. Bailleul, and Markus Kraft. Coupling algorithms for calculating sensitivities of Smoluchowski’s coagulation equation. *SIAM Journal on Scientific Computing*, 32(2):635–655, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic) [MNS07]
- [MNU23] **Morandin:2023:PHD** Riccardo Morandin, Jonas Nicodemus, and Benjamin Unger. Port-Hamiltonian dynamic mode decomposition. *SIAM Journal on*
- Musy:2007:CCN** F. Musy, L. Nicolas, and R. Perrussel. Compatible coarse nodal and edge elements through energy functionals. *SIAM Journal on Scientific Computing*, 29(3):1315–1337, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mackenzie:2019:AMM** J. A. Mackenzie, M. Nolan, C. F. Rowlatt, and R. H. Insall. An adaptive moving mesh method for forced curve shortening flow. *SIAM Journal on Scientific Computing*, 41(2):A1170–A1200, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mardal:2007:OOP** K.-A. Mardal, T. K. Nilssen, and G. A. Staff. Order-optimal preconditioners for implicit Runge–Kutta schemes applied to parabolic PDEs. *SIAM Journal on Scientific Computing*, 29(1):361–375, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Scientific Computing, 45(4): A1690–A1710, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M149329X>.

Migliorati:2013:AQI

[MNvST13]

G. Migliorati, F. Nobile, E. von Schwerin, and R. Tempone. Approximation of quantities of interest in stochastic PDEs by the random discrete L^2 projection on polynomial spaces. *SIAM Journal on Scientific Computing*, 35(3):A1440–A1460, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Musharbash:2015:EAD

[MNZ15]

E. Musharbash, F. Nobile, and T. Zhou. Error analysis of the dynamically orthogonal approximation of time dependent random PDEs. *SIAM Journal on Scientific Computing*, 37(2):A776–A810, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Marquina:2000:EAN

[MO00]

Antonio Marquina and Stanley Osher. Explicit algorithms for a new time dependent model based on level set motion for nonlinear deblurring and noise removal. *SIAM Journal*

on Scientific Computing, 22(2):387–405, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35175>.

MacLachlan:2008:AMS

[MO08]

Scott P. MacLachlan and Cornelis W. Oosterlee. Algebraic multigrid solvers for complex-valued matrices. *SIAM Journal on Scientific Computing*, 30(3):1548–1571, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mikula:2010:NLS

[MO10]

Karol Mikula and Mario Ohlberger. A new level set method for motion in normal direction based on a semi-implicit forward-backward diffusion approach. *SIAM Journal on Scientific Computing*, 32(3):1527–1544, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Montoisson:2021:TTT

[MO21]

Alexis Montoisson and Dominique Orban. TriCG and TriMR: Two iterative methods for symmetric quasi-definite systems. *SIAM Journal on Scientific Computing*, 43(4):A2502–A2525, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MOHvdG17] **Martinsson:2017:HFR**
 Per-Gunnar Martinsson, Gregorio Quintana Ortí, Nathan Heavner, and Robert van de Geijn. Householder QR factorization with randomization for column pivoting (HQRRP). *SIAM Journal on Scientific Computing*, 39(2):C96–C115, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MOKS12] **MacLachlan:2012:MCS**
 S. MacLachlan, D. Osei-Kuffuor, and Yousef Saad. Modification and compensation strategies for threshold-based incomplete factorizations. *SIAM Journal on Scientific Computing*, 34(1):A48–A75, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA48_s1.
- [Mön08] **Monnigmann:2008:ECB**
 M. Mönnigmann. Efficient calculation of bounds on spectra of Hessian matrices. *SIAM Journal on Scientific Computing*, 30(5):2340–2357, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Moo00] **Moore:2000:AFE**
 Peter K. Moore. An adaptive finite element method for parabolic differential systems: Some algorithmic considerations in solving in three space dimensions. *SIAM Journal on Scientific Computing*, 21(4):1567–1586, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34919>.
- [Mor02] **Morgan:2002:GDR**
 Ronald B. Morgan. GMRES with deflated restarting. *SIAM Journal on Scientific Computing*, 24(1):20–37, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36465>.
- [Mor23] **Mortensen:2023:GSB**
 Mikael Mortensen. A generic and strictly banded spectral Petrov–Galerkin method for differential equations with polynomial coefficients. *SIAM Journal on Scientific Computing*, 45(1):A123–A146, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1492842>.
- [MOSS17] **Manteuffel:2017:RNB**
 Thomas A. Manteuffel, Luke N. Olson, Jacob B. Schroder, and Ben S. Southworth.

- A root-node-based algebraic multigrid method. *SIAM Journal on Scientific Computing*, 39(5):S723–S756, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MP20a]
- [Mou20] Sophie M. Moufawad. *s*-step enlarged Krylov subspace conjugate gradient methods. *SIAM Journal on Scientific Computing*, 42(1):A187–A219, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MP94] P. B. Monk and A. K. Parrott. A dispersion analysis of finite element methods for Maxwell’s equations. *SIAM Journal on Scientific Computing*, 15(4):916–937, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MP08] Stefano Micheletti and Simona Perotto. Output functional control for nonlinear equations driven by anisotropic mesh adaptation: The Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 30(6):2817–2854, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Matharu:2020:OCS] Pritpal Matharu and Bartosz Protas. Optimal closures in a simple model for turbulent flows. *SIAM Journal on Scientific Computing*, 42(1):B250–B272, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Maxian:2020:IBM] Ondrej Maxian and Charles S. Peskin. An immersed boundary method with subgrid resolution and improved numerical stability applied to slender bodies in Stokes flow. *SIAM Journal on Scientific Computing*, 42(4):B847–B868, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Muller:2023:SAS] Peter Marvin Müller, José Pinzón, Thomas Rung, and Martin Siebenborn. A scalable algorithm for shape optimization with geometric constraints in Banach spaces. *SIAM Journal on Scientific Computing*, 45(2):B231–B251, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1494609>. [MPRS23]
- [Monk:1994:DAF] P. B. Monk and A. K. Parrott. A dispersion analysis of finite element methods for Maxwell’s equations. *SIAM Journal on Scientific Computing*, 15(4):916–937, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Micheletti:2008:OFC] Stefano Micheletti and Simona Perotto. Output functional control for nonlinear equations driven by anisotropic mesh adaptation: The Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 30(6):2817–2854, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MPRW98] **Mathew:1998:DDO**
 T. P. Mathew, P. L. Polyakov, G. Russo, and J. Wang. Domain decomposition operator splittings for the solution of parabolic equations. *SIAM Journal on Scientific Computing*, 19(3):912–932, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28820>.
- [MPS09] **Munteanu:2009:SNK**
 M. Munteanu, L. F. Pavarino, and S. Scacchi. A scalable Newton–Krylov–Schwarz method for the bidomain reaction-diffusion system. *SIAM Journal on Scientific Computing*, 31(5):3861–3883, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MPS18] **Maalqvist:2018:MDR**
 Axel Målqvist, Anna Persson, and Tony Stillfjord. Multiscale differential Riccati equations for linear quadratic regulator problems. *SIAM Journal on Scientific Computing*, 40(4):A2406–A2426, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MPV21] **Miraci:2021:PSR**
 Ani Miraci, Jan Papez, and Martin Vohralík. A posteriori-steered p -robust
- multigrid with optimal step-sizes and adaptive number of smoothing steps. *SIAM Journal on Scientific Computing*, 43(5):S117–S145, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MPW18] **McDonald:2018:PIS**
 Eleanor McDonald, Jennifer Pestana, and Andy Wathen. Preconditioning and iterative solution of all-at-once systems for evolutionary partial differential equations. *SIAM Journal on Scientific Computing*, 40(2):A1012–A1033, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MR94] **Mu:1994:PDD**
 Mo Mu and John R. Rice. Preconditioning for domain decomposition through function approximation. *SIAM Journal on Scientific Computing*, 15(6):1452–1466, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MR01] **Morton:2001:VPL**
 K. W. Morton and P. L. Roe. Vorticity-preserving Lax–Wendroff-type schemes for the system wave equation. *SIAM Journal on Scientific Computing*, 23(1):170–192, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35914>. [MR09]
- [MR02] **Mead:2002:ARS**
 Jodi L. Mead and Rosemary A. Renaut. Accuracy, resolution, and stability properties of a modified Chebyshev method. *SIAM Journal on Scientific Computing*, 24(1):143–160, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38150>. [MR17]
- [MR04] **Maday:2004:RBE**
 Yvon Maday and Einar M. Ronquist. The reduced basis element method: Application to a thermal fin problem. *SIAM Journal on Scientific Computing*, 26(1):240–258, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41993>. [MR18]
- [MR07] **Martinsson:2007:AKI**
 P. G. Martinsson and V. Rokhlin. An accelerated kernel-independent fast multipole method in one dimension. *SIAM Journal on Scientific Computing*, 29(3):1160–1178, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MRB23]
- Macdonald:2009:ICP**
 Colin B. Macdonald and Steven J. Ruuth. The implicit closest point method for the numerical solution of partial differential equations on surfaces. *SIAM Journal on Scientific Computing*, 31(6):4330–4350, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mang:2017:LGN**
 Andreas Mang and Lars Ruthotto. A Lagrangian Gauss–Newton–Krylov solver for mass- and intensity-preserving diffeomorphic image registration. *SIAM Journal on Scientific Computing*, 39(5):B860–B885, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mittal:2018:SII**
 H. V. R. Mittal and Rajendra K. Ray. Solving immersed interface problems using a new interfacial points-based finite difference approach. *SIAM Journal on Scientific Computing*, 40(3):A1860–A1883, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Meddahi:2023:MDG**
 Salim Meddahi and Ricardo Ruiz-Baier. A mixed discontinuous Galerkin method

for a linear viscoelasticity problem with strongly imposed symmetry. *SIAM Journal on Scientific Computing*, 45(1):B27–B56, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1482081>.

Manzanero:2018:DDA

[MRFV18]

Juan Manzanero, Gonzalo Rubio, Esteban Ferrer, and Eusebio Valero. Dispersion-dissipation analysis for advection problems with non-constant coefficients: Applications to discontinuous Galerkin formulations. *SIAM Journal on Scientific Computing*, 40(2):A747–A768, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mackenzie:2021:CFE

[MRI21]

John Mackenzie, Christopher Rowlett, and Robert Insall. A conservative finite element ALE scheme for mass-conservative reaction-diffusion equations on evolving two-dimensional domains. *SIAM Journal on Scientific Computing*, 43(1):B132–B166, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Massei:2020:HTM

[MRK20]

Stefano Massei, Leonardo

Robol, and Daniel Kressner. `hm-toolbox`: MATLAB software for HODLR and HSS matrices. *SIAM Journal on Scientific Computing*, 42(2):C43–C68, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mitsotakis:2021:CFD

[MRKS21]

Dimitrios Mitsotakis, Hendrik Ranocha, David I. Ketcheson, and Endre Süli. A conservative fully discrete numerical method for the regularized shallow water wave equations. *SIAM Journal on Scientific Computing*, 43(2):B508–B537, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mycek:2017:DPB

[MRL⁺17]

Paul Mycek, Francesco Rizzi, Olivier Le Maître, Khachik Sargsyan, Karla Morris, Cosmin Safta, Bert Deusschere, and Omar Knio. Discrete a priori bounds for the detection of corrupted PDE solutions in exascale computations. *SIAM Journal on Scientific Computing*, 39(1):C1–C28, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Magoules:2004:ODT

[MRS04]

Frédéric Magoules, François-Xavier Roux, and Stéphanie

- Salmon. Optimal discrete transmission conditions for a nonoverlapping domain decomposition method for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 25(5):1497–1515, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41535>. [MRS14]
- McLachlan:2014:HOM**
- [MRS14] Robert I. McLachlan, Brett N. Ryland, and Yajuan Sun. High order multisymplectic Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 36(5):A2199–A2226, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MRT00]
- Milk:2016:PGA**
- [MRS16] René Milk, Stephan Rave, and Felix Schindler. pyMOR — generic algorithms and interfaces for model order reduction. *SIAM Journal on Scientific Computing*, 38(5):S194–S216, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Manteuffel:2018:NAM**
- [MRS18] Thomas A. Manteuffel, John Ruge, and Ben S. Southworth. Nonsymmetric algebraic multigrid based on local approximate ideal restriction (lAIR). *SIAM Journal on Scientific Computing*, 40(6):A4105–A4130, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mikula:2014:MET**
- Karol Mikula, Mariana Remesíková, Peter Sarkoci, and Daniel Sevcovic. Manifold evolution with tangential redistribution of points. *SIAM Journal on Scientific Computing*, 36(4):A1384–A1414, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Maryska:2000:SCS**
- J. Maryska, M. Rozložník, and M. Tuma. Schur complement systems in the mixed-hybrid finite element approximation of the potential fluid flow problem. *SIAM Journal on Scientific Computing*, 22(2):704–723, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33960>.
- Marques:2006:BIF**
- [MRV06] Osni A. Marques, E. Jason Riedy, and Christof Vömel. Benefits of IEEE-754 features in modern symmetric tridiagonal eigensolvers. *SIAM Journal on Scientific Computing*, 28(5):1613–1633, Jan-

uary 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Meyer:2015:AOC

[MRW15]

Ch. Meyer, A. Rademacher, and W. Wollner. Adaptive optimal control of the obstacle problem. *SIAM Journal on Scientific Computing*, 37(2):A918–A945, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[MS03]

Mattsson:1993:IRD

[MS93a]

Sven Erik Mattsson and Gustaf Söderlind. Index reduction in differential-algebraic equations using dummy derivatives. *SIAM Journal on Scientific Computing*, 14(3):677–692, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[MS04]

Morgan:1993:PLA

[MS93b]

Ronald B. Morgan and David S. Scott. Preconditioning the Lanczos algorithm for sparse symmetric eigenvalue problems. *SIAM Journal on Scientific Computing*, 14(3):585–593, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Margolin:1998:AVM

[MS98]

Len Margolin and Piotr K. Smolarkiewicz. Antidiffusive velocities for multipass donor

cell advection. *SIAM Journal on Scientific Computing*, 20(3):907–929, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/24700>.

Mueller:2003:DRC

Jennifer L. Mueller and Samuli Siltanen. Direct reconstructions of conductivities from boundary measurements. *SIAM Journal on Scientific Computing*, 24(4):1232–1266, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39456>.

Mascagni:2004:MCM

Michael Mascagni and Nikolai A. Simonov. Monte Carlo methods for calculating some physical properties of large molecules. *SIAM Journal on Scientific Computing*, 26(1):339–357, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42222>.

Matthies:2006:MMI

[MS06a]

Gunar Matthies and Friedhelm Schieweck. A multi-grid method for incompressible flow problems using quasi divergence free func-

- tions. *SIAM Journal on Scientific Computing*, 28(1):141–171, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61814.html. [MS07c]
- [MS06b] **McCombs:2006:IVE**
James R. McCombs and Andreas Stathopoulos. Iterative validation of eigensolvers: a scheme for improving the reliability of Hermitian eigenvalue solvers. *SIAM Journal on Scientific Computing*, 28(6):2337–2358, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MS07d]
- [MS07a] **MacLachlan:2007:GSC**
S. MacLachlan and Yousef Saad. A greedy strategy for coarse-grid selection. *SIAM Journal on Scientific Computing*, 29(5):1825–1853, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MS07e]
- [MS07b] **MacLachlan:2007:GCS**
Scott MacLachlan and Yousef Saad. Greedy coarsening strategies for nonsymmetric problems. *SIAM Journal on Scientific Computing*, 29(5): 2115–2143, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MS12]
- Mahawar:2007:PIS**
Hemant Mahawar and Vivek Sarin. Preconditioned iterative solvers for inductance extraction of VLSI circuits. *SIAM Journal on Scientific Computing*, 29(1):182–196, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Makarov:2007:SAH**
Roman N. Makarov and Elena V. Shkarupa. Stochastic algorithms with Hermite cubic spline interpolation for global estimation of solutions of boundary value problems. *SIAM Journal on Scientific Computing*, 30(1):169–188, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Moro:2007:BPS**
Esteban Moro and Henri Schurz. Boundary preserving semianalytic numerical algorithms for stochastic differential equations. *SIAM Journal on Scientific Computing*, 29(4):1525–1549, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Monk:2012:FEM**
Peter Monk and Jiguang Sun. Finite element methods for Maxwell’s transmission eigenvalues. *SIAM Journal on Scientific Computing*, 34(3):

B247–B264, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Maday:2013:LAG

[MS13]

Yvon Maday and Benjamin Stamm. Locally adaptive greedy approximations for anisotropic parameter reduced basis spaces. *SIAM Journal on Scientific Computing*, 35(6):A2417–A2441, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[MS19]

Mao:2017:HSM

[MS17]

Zhiping Mao and Jie Shen. Hermite spectral methods for fractional PDEs in unbounded domains. *SIAM Journal on Scientific Computing*, 39(5):A1928–A1950, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[MS20]

Morgan:2018:TUF

[MS18a]

Hannah Morgan and L. Ridgway Scott. Towards a unified finite element method for the Stokes equations. *SIAM Journal on Scientific Computing*, 40(1):A130–A141, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mowlavi:2018:MOR

[MS18b]

Saviz Mowlavi and Themistoklis P. Sapsis. Model or-

der reduction for stochastic dynamical systems with continuous symmetries. *SIAM Journal on Scientific Computing*, 40(3):A1669–A1695, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Manteuffel:2019:CNN

Tom Manteuffel and Ben S. Southworth. Convergence in norm of nonsymmetric algebraic multigrid. *SIAM Journal on Scientific Computing*, 41(5):S269–S296, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Morrow:2020:MDA

Zachary Morrow and Miroslav Stoyanov. A method for dimensionally adaptive sparse trigonometric interpolation of periodic functions. *SIAM Journal on Scientific Computing*, 42(4):A2436–A2460, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Minion:2015:IPP

[MSB⁺15]

M. L. Minion, R. Speck, M. Bolten, M. Emmett, and D. Ruprecht. Interweaving PFASST and parallel multigrid. *SIAM Journal on Scientific Computing*, 37(5):S244–S263, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MSL13] **Martin:2013:OTF**
 Carla D. Martin, Richard Shafer, and Betsy LaRue. An order- p tensor factorization with applications in imaging. *SIAM Journal on Scientific Computing*, 35(1):A474–A490, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MSM14] **Meng:2014:LPI**
 Xiangrui Meng, Michael A. Saunders, and Michael W. Mahoney. LSRN: a parallel iterative solver for strongly over- or underdetermined systems. *SIAM Journal on Scientific Computing*, 36(2):C95–C118, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MSS10] **Mathew:2010:ABP**
 Tarek P. Mathew, Marcus Sarkis, and Christian E. Schaerer. Analysis of block parareal preconditioners for parabolic optimal control problems. *SIAM Journal on Scientific Computing*, 32(3):1180–1200, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MSS12] **Mishra:2012:MMC**
 S. Mishra, Ch. Schwab, and J. Sukys. Multilevel Monte Carlo finite volume meth-
- ods for shallow water equations with uncertain topography in multi-dimensions. *SIAM Journal on Scientific Computing*, 34(6):B761–B784, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MST15] **Messner:2015:EGB**
 Michael Messner, Martin Schanz, and Johannes Tausch. An efficient Galerkin boundary element method for the transient heat equation. *SIAM Journal on Scientific Computing*, 37(3):A1554–A1576, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MSV00] **Munz:2000:FVM**
 C.-D. Munz, R. Schneider, and U. Voss. A finite-volume method for the Maxwell equations in the time domain. *SIAM Journal on Scientific Computing*, 22(2):449–475, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30789>.
- [MSW05] **Matache:2005:FNS**
 Ana-Maria Matache, Christoph Schwab, and Thomas P. Wihler. Fast numerical solution of parabolic integrodifferential equations with applica-

tions in finance. *SIAM Journal on Scientific Computing*, 27(2):369–393, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60261>.

Meza:1996:MPS

[MT96]

Juan C. Meza and Ray S. Tuminaro. A multigrid preconditioner for the semiconductor equations. *SIAM Journal on Scientific Computing*, 17(1):118–132, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Marz:1997:RRS

[MT97a]

Roswitha März and Caren Tischendorf. Recent results in solving index-2 differential-algebraic equations in circuit simulation. *SIAM Journal on Scientific Computing*, 18(1):139–159, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28725>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Milstein:1997:MSN

[MT97b]

G. N. Milstein and M. V. Tret'yakov. Mean-square nu-

merical methods for stochastic differential equations with small noises. *SIAM Journal on Scientific Computing*, 18(4):1067–1087, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27857>.

Milewski:1999:PPS

[MT99]

Paul A. Milewski and Esteban G. Tabak. A PseudoSpectral procedure for the solution of nonlinear wave equations with examples from free-surface flows. *SIAM Journal on Scientific Computing*, 21(3):1102–1114, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32153>.

Milstein:2006:NAF

[MT06]

G. N. Milstein and M. V. Tret'yakov. Numerical algorithms for forward-backward stochastic differential equations. *SIAM Journal on Scientific Computing*, 28(2):561–582, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61442.html.

Meir:2009:RPF

[MT09]

Amnon J. Meir and Necibe Tuncer. Radially projected fi-

- nite elements. *SIAM Journal on Scientific Computing*, 31(3):2368–2385, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MT19a] **Maday:2019:APA**
Yvon Maday and Tommaso Taddei. Adaptive PBDW approach to state estimation: Noisy observations; user-defined update spaces. *SIAM Journal on Scientific Computing*, 41(4):B669–B693, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MT19b] **McCoid:2019:IRB**
Conor McCoid and Manfred R. Trummer. Improved resolution of boundary layers for spectral collocation. *SIAM Journal on Scientific Computing*, 41(5):A2836–A2849, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MT22] **Ma:2022:NFO**
Limin Ma and Shudan Tian. New fourth order postprocessing techniques for plate bending eigenvalues by Morley element. *SIAM Journal on Scientific Computing*, 44(4):B910–B937, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446642>.
- [MT23] **Mohyaddin:2023:FME**
Sasan Mohyaddin and Johannes Tausch. A fast method for evaluating volume potentials in the Galerkin boundary element method. *SIAM Journal on Scientific Computing*, 45(2):A480–A501, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1463008>.
- [MTBT17] **Muralikrishnan:2017:IIH**
Sriramkrishnan Muralikrishnan, Minh-Binh Tran, and Tan Bui-Thanh. iHDG: an iterative HDG framework for partial differential equations. *SIAM Journal on Scientific Computing*, 39(5):S782–S808, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MTM08] **Minary:2008:DSW**
Peter Minary, Mark E. Tuckerman, and Glenn J. Martyna. Dynamical spatial warping: a novel method for the conformational sampling of biophysical structure. *SIAM Journal on Scientific Computing*, 30(4):2055–2083, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MTTV98] **Miller:1998:GSF**
 Gary L. Miller, Shang-Hua Teng, William Thurston, and Stephen A. Vavasis. Geometric separators for finite-element meshes. *SIAM Journal on Scientific Computing*, 19(2):364–386, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26261>.
- [MTV16] **Moraes:2016:MAR**
 Alvaro Moraes, Raul Tempone, and Pedro Vilanova. A multilevel adaptive reaction-splitting simulation method for stochastic reaction networks. *SIAM Journal on Scientific Computing*, 38(4):A2091–A2117, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mu95] **Mu:1995:NFP**
 Mo Mu. A new family of preconditioners for domain decomposition. *SIAM Journal on Scientific Computing*, 16(2):289–306, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mu97] **Mu:1997:LCN**
 Mo Mu. A linearized Crank–Nicolson–Galerkin method for the Ginzburg–Landau model. *SIAM Journal on Scientific Computing*, 18(4):1028–1039, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28375>.
- [Mu99] **Mu:1999:SCP**
 Mo Mu. Solving composite problems with interface relaxation. *SIAM Journal on Scientific Computing*, 20(4):1394–1416, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32118>.
- [Mu20] **Mu:2020:PRW**
 Lin Mu. Pressure robust weak Galerkin finite element methods for Stokes problems. *SIAM Journal on Scientific Computing*, 42(3):B608–B629, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MV94] **Margenov:1994:AMP**
 Svetoazar D. Margenov and Panayot S. Vassilevski. Algebraic multilevel preconditioning of anisotropic elliptic problems. *SIAM Journal on Scientific Computing*, 15(5):1026–1037, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [MV00] **Mackens:2000:CME** Wolfgang Mackens and Heinrich Voss. Computing the minimum eigenvalue of a symmetric positive definite Toeplitz matrix by Newton-type methods. *SIAM Journal on Scientific Computing*, 21(4):1650–1656, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34219>. [MV16]
- [MV06] **Muller:2006:RPE** Siegfried Müller and Alexander Voss. The Riemann problem for the Euler equations with nonconvex and nonsmooth equation of state: Construction of wave curves. *SIAM Journal on Scientific Computing*, 28(2):651–681, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61990.html. [MV21]
- [MV09] **Madrane:2009:TDA** Aziz Madrane and Rémi Vaillancourt. Three-dimensional adaptive central schemes on unstructured staggered grids. *SIAM Journal on Scientific Computing*, 31(5):3979–3999, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MvdM21]
- [MV16] **Martinsson:2016:RBA** Per-Gunnar Martinsson and Sergey Voronin. A randomized blocked algorithm for efficiently computing rank-revealing factorizations of matrices. *SIAM Journal on Scientific Computing*, 38(5):S485–S507, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Mora:2021:VET]
- [Mora:2021:VET] David Mora and Iván Velásquez. Virtual elements for the transmission eigenvalue problem on polytopal meshes. *SIAM Journal on Scientific Computing*, 43(4):A2425–A2447, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Mororo:2021:PCT]
- [Mororo:2021:PCT] L. A. T. Mororó and F. P. van der Meer. Parallel computing with the thick level set method. *SIAM Journal on Scientific Computing*, 43(6):C386–C410, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Mehrmann:2001:SPM]
- [MW01] **Mehrmann:2001:SPM** Volker Mehrmann and David Watkins. Structure-preserving methods for computing eigenpairs of large sparse skew-Hamiltonian/Hamiltonian pencils. *SIAM Journal on*

- Scientific Computing*, 22(6): 1905–1925, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36643>. [MW11]
- Matheis:2003:CSW**
- [MW03] Ingo Matheis and Wolfgang Wagner. Convergence of the stochastic weighted particle method for the Boltzmann equation. *SIAM Journal on Scientific Computing*, 24(5): 1589–1609, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40601>. [MW13]
- Malham:2008:SLG**
- [MW08a] Simon J. A. Malham and Anke Wiese. Stochastic Lie group integrators. *SIAM Journal on Scientific Computing*, 30(2):597–617, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MW15]
- Melton:2008:AST**
- [MW08b] Roy W. Melton and Linda M. Wills. An analysis of the spectral transform operations in climate and weather models. *SIAM Journal on Scientific Computing*, 31(1):167–188, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MW16]
- More:2011:ECN**
- Jorge J. Moré and Stefan M. Wild. Estimating computational noise. *SIAM Journal on Scientific Computing*, 33(3):1292–1314, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1292_s1. [MW16]
- Miki:2013:AAI**
- Yuichiro Miki and Teruyoshi Washizawa. A²ILU: Auto-accelerated ILU preconditioner for sparse linear systems. *SIAM Journal on Scientific Computing*, 35(2): A1212–A1232, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- McLachlan:2015:MDS**
- R. I. McLachlan and M. C. Wilkins. The multisymplectic diamond scheme. *SIAM Journal on Scientific Computing*, 37(1):A369–A390, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Muscato:2016:CSA**
- Orazio Muscato and Wolfgang Wagner. A class of stochastic algorithms for the Wigner equation. *SIAM Journal on Scientific Computing*, 38(3):A1483–A1507,

???? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Metcalfe:2022:CPE

- [MW22] Stephen Metcalfe and Thomas P. Wihler. Conditional a posteriori error bounds for high order discontinuous Galerkin time stepping approximations of semilinear heat models with blow-up. *SIAM Journal on Scientific Computing*, 44(3):A1337–A1357, ????. 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1418964>.

Martin:2012:SNM

- [MWBG12] James Martin, Lucas C. Wilcox, Carsten Burstedde, and Omar Ghattas. A stochastic Newton MCMC method for large-scale statistical inverse problems with application to seismic inversion. *SIAM Journal on Scientific Computing*, 34(3):A1460–A1487, ????. 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Mu:2017:LSB

- [MWY17] Lin Mu, Junping Wang, and Xiu Ye. A least-squares-based weak Galerkin finite element method for second order elliptic equations. *SIAM Journal on Scientific Computing*, 39(4):A1531–A1557, ????. 2017.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

March:2015:AAS

William B. March, Bo Xiao, and George Biros. ASKIT: Approximate skeletonization kernel-independent treecode in high dimensions. *SIAM Journal on Scientific Computing*, 37(2):A1089–A1110, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

March:2016:AEP

- [MXYB16] William B. March, Bo Xiao, Chenhan D. Yu, and George Biros. ASKIT: an efficient, parallel library for high-dimensional kernel summations. *SIAM Journal on Scientific Computing*, 38(5):S720–S749, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Morgan:2018:TGM

- [MY18] Ronald B. Morgan and Zhao Yang. Two-grid and multiple-grid Arnoldi for eigenvalues. *SIAM Journal on Scientific Computing*, 40(5):A3470–A3494, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Minden:2020:SSF

Victor Minden and Lexing Ying. A simple solver for the

- fractional Laplacian in multiple dimensions. *SIAM Journal on Scientific Computing*, 42(2):A878–A900, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MZ94]
- [MY21] **Manteuffel:2021:SSC**
Tom Manteuffel and Irad Yavneh. Special section: 2020 copper mountain conference. *SIAM Journal on Scientific Computing*, 43(5):Si, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MZ19]
- [MYN20] **Mercier:2020:CMM**
Olivier Mercier, Xi-Yuan Yin, and Jean-Christophe Nave. The characteristic mapping method for the linear advection of arbitrary sets. *SIAM Journal on Scientific Computing*, 42(3):A1663–A1685, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MYZ21] **Mu:2021:SFP**
Lin Mu, Xiu Ye, and Shangyou Zhang. A stabilizer-free, pressure-robust, and superconvergence weak Galerkin finite element method for the Stokes equations on polytopal mesh. *SIAM Journal on Scientific Computing*, 43(4):A2614–A2637, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [MZDK22]
- Misici:1994:TDI**
Luciano Misici and Francesco Zirilli. Three-dimensional inverse obstacle scattering for time harmonic acoustic waves: a numerical method. *SIAM Journal on Scientific Computing*, 15(5):1174–1189, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Mu:2019:DDM**
Lin Mu and Guannan Zhang. A domain decomposition model reduction method for linear convection-diffusion equations with random coefficients. *SIAM Journal on Scientific Computing*, 41(3):A1984–A2011, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Meng:2022:SSO**
Tingwei Meng, Zhen Zhang, Jerome Darbon, and George Karniadakis. SympOCnet: Solving optimal control problems with applications to high-dimensional multi-agent path planning problems. *SIAM Journal on Scientific Computing*, 44(6):B1341–B1368, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1472206>.

- [MZW09] **Mo:2009:SHA**
 Zeyao Mo, Aiqing Zhang, and Gabriel Wittum. Scalable heuristic algorithms for the parallel execution of data flow acyclic digraphs. *SIAM Journal on Scientific Computing*, 31(5):3626–3642, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [MZWG16] **Mu:2016:SRM**
 Cun Mu, Yuqian Zhang, John Wright, and Donald Goldfarb. Scalable robust matrix recovery: Frank–Wolfe meets proximal methods. *SIAM Journal on Scientific Computing*, 38(5):A3291–A3317, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NAC⁺15] **Naumov:2015:ALG**
 M. Naumov, M. Arsaev, P. Castonguay, J. Cohen, J. Demouth, J. Eaton, S. Layton, N. Markovskiy, I. Reguly, N. Sakharnykh, V. Sellappan, and R. Strzodka. AmgX: a library for GPU accelerated algebraic multigrid and preconditioned iterative methods. *SIAM Journal on Scientific Computing*, 37(5):S602–S626, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Nag93] **Nagy:1993:FIF**
 James G. Nagy. Fast inverse QR factorization for Toeplitz matrices. *SIAM Journal on Scientific Computing*, 14(5):1174–1193, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Nak98] **Nakamura:1998:CLT**
 Yoshimasa Nakamura. Calculating Laplace transforms in terms of the Toda molecule. *SIAM Journal on Scientific Computing*, 20(1):306–317, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31408>.
- [Nap23] **Napov:2023:ICP**
 Artem Napov. An incomplete Cholesky preconditioner based on orthogonal approximations. *SIAM Journal on Scientific Computing*, 45(2):A729–A752, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1468334>.
- [Nas09] **Nasser:2009:NCM**
 Mohamed M. S. Nasser. Numerical conformal mapping via a boundary integral equation with the generalized Neumann kernel. *SIAM Journal on Scientific Computing*, 31(3):1695–1715, 2009. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). [Nat98]
- Nasser:2013:FBI**
- [NAS13] Mohamed M. S. Nasser and Fayzah A. A. Al-Shihri. A fast boundary integral equation method for conformal mapping of multiply connected regions. *SIAM Journal on Scientific Computing*, 35(3):A1736–A1760, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Natarajan:1995:DDU**
- [Nat95] Ramesh Natarajan. Domain decomposition using spectral expansions of Steklov–Poincaré operators. *SIAM Journal on Scientific Computing*, 16(2):470–495, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Natarajan:1997:DDU** [NCCR22]
- [Nat97] Ramesh Natarajan. Domain decomposition using spectral expansions of Steklov–Poincaré operators. II. A matrix formulation. *SIAM Journal on Scientific Computing*, 18(4):1187–1199, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27430>.
- Natarajan:1998:ISD**
- Ramesh Natarajan. An iterative scheme for dense, complex-symmetric, linear systems in acoustics boundary-element computations. *SIAM Journal on Scientific Computing*, 19(5):1450–1470, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29628>.
- Noelle:2014:WAP**
- [NBA⁺14] S. Noelle, G. Bispen, K. R. Arun, M. Lukáčová-Medvidová, and C.-D. Munz. A weakly asymptotic preserving low Mach number Scheme for the Euler equations of gas dynamics. *SIAM Journal on Scientific Computing*, 36(6):B989–B1024, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Newman:2022:SSA**
- Elizabeth Newman, Julianne Chung, Matthias Chung, and Lars Ruthotto. slimTrain — a stochastic approximation method for training separable deep neural networks. *SIAM Journal on Scientific Computing*, 44(4):A2322–A2348, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452512>.

- [NCT99] **Ng:1999:FAD**
 Michael K. Ng, Raymond H. Chan, and Wun-Cheung Tang. A fast algorithm for deblurring models with Neumann boundary conditions. *SIAM Journal on Scientific Computing*, 21(3):851–866, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34138>.
- [NVCV06] **Noutsos:2006:TLT**
 D. Noutsos, S. Serra Capizzano, and P. Vassalos. Two-level Toeplitz preconditioning: approximation results for matrices and functions. *SIAM Journal on Scientific Computing*, 28(2):439–458, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62704.html.
- [NFFP18] **Nguyen:2018:ARM**
 N. C. Nguyen, P. Fernandez, R. M. Freund, and J. Peraire. Accelerated residual methods for the iterative solution of systems of equations. *SIAM Journal on Scientific Computing*, 40(5):A3157–A3179, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ng94] **Ng:1994:SSS**
 Pin T. Ng. Smoothing spline score estimation. *SIAM Journal on Scientific Computing*, 15(5):1003–1025, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ng00] **Ng:2000:PLM**
 Michael K. Ng. Preconditioned Lanczos methods for the minimum eigenvalue of a symmetric positive definite Toeplitz matrix. *SIAM Journal on Scientific Computing*, 21(6):1973–1986, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33016>.
- [NG18] **Neuenhofen:2018:MSI**
 Martin P. Neuenhofen and Chen Greif. Mstab: Stabilized induced dimension reduction for Krylov subspace recycling. *SIAM Journal on Scientific Computing*, 40(2):B554–B571, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NGX14] **Narayan:2014:SCA**
 Akil Narayan, Claude Gittelsohn, and Dongbin Xiu. A stochastic collocation algorithm with multifidelity models. *SIAM Journal on Sci-*

tific Computing, 36(2):A495–A521, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nazarov:2012:SDP

[NH12]

Murtazo Nazarov and Johan Hoffman. On the stability of the dual problem for high Reynolds number flow past a circular cylinder in two dimensions. *SIAM Journal on Scientific Computing*, 34(4):A1905–A1924, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nakatsukasa:2013:SES

[NH13]

Yuji Nakatsukasa and Nicholas J. Higham. Stable and efficient spectral divide and conquer algorithms for the symmetric eigenvalue decomposition and the SVD. *SIAM Journal on Scientific Computing*, 35(3):A1325–A1349, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Newman:2014:PVD

[NH14]

William I. Newman and Nathaniel D. Hamlin. Primitive variable determination in conservative relativistic magnetohydrodynamic simulations. *SIAM Journal on Scientific Computing*, 36(4):B661–B683, 2014. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Nadukandi:2018:CWK

[NH18]

Prashanth Nadukandi and Nicholas J. Higham. Computing the wave-kernel matrix functions. *SIAM Journal on Scientific Computing*, 40(6):A4060–A4082, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nannen:2013:ESH

[NHSS13]

Lothar Nannen, Thorsten Hohage, Achim Schädle, and Joachim Schöberl. Exact sequences of high order Hardy space infinite elements for exterior Maxwell problems. *SIAM Journal on Scientific Computing*, 35(2):A1024–A1048, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nievergelt:2006:EPD

[Nie06]

Yves Nievergelt. Extensions of Priest’s double-precision summation. *SIAM Journal on Scientific Computing*, 28(5):1837–1850, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Niemi:2016:BCS

[Nie16]

Antti H. Niemi. Benchmark computations of stresses in a spherical dome with shell finite elements. *SIAM Jour-*

- nal on Scientific Computing*, 38(3):B440–B457, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NJ14]
- [Nik00] Jorgen L. Nikolajsen. An improved Laguerre eigensolver for unsymmetric matrices. *SIAM Journal on Scientific Computing*, 22(3): 822–834, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34963>. [NK13]
- [Nik13] Jorgen L. Nikolajsen. Fractional significant digits. *SIAM Journal on Scientific Computing*, 35(2):A561–A576, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NK15]
- [Nit99] Monika Nitsche. Axisymmetric vortex sheet motion: Accurate evaluation of the principal value integral. *SIAM Journal on Scientific Computing*, 21(3): 1066–1084, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31418>. [NKGG21]
- Narayan:2014:ALS**
Akil Narayan and John D. Jakeman. Adaptive Leja sparse Grid constructions for stochastic collocation and high-dimensional approximation. *SIAM Journal on Scientific Computing*, 36(6): A2952–A2983, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Newman:2013:PBP**
C. Newman and D. A. Knoll. Physics-based preconditioners for ocean simulation. *SIAM Journal on Scientific Computing*, 35(5):S445–S464, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Nance:2015:SIA**
J. Nance and C. T. Kelley. A sparse interpolation algorithm for dynamical simulations in computational chemistry. *SIAM Journal on Scientific Computing*, 37(5): S137–S156, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Nassar:2021:SAM**
Huda Nassar, Georgios Kollias, Ananth Grama, and David F. Gleich. Scalable algorithms for multiple network alignment. *SIAM Journal on Scientific Computing*, 43(5):

S592–S611, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nabors:1994:PAM

- [NKLW94] K. Nabors, F. T. Kormsmeier, F. T. Leighton, and J. White. Preconditioned, adaptive, multipole-accelerated iterative methods for three-dimensional first-kind integral equations of potential theory. *SIAM Journal on Scientific Computing*, 15(3):713–735, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992). [NL99]

Nourgaliev:2010:MRL

- [NKM10] Robert Nourgaliev, Samet Kadioglu, and Vincent Mousseau. Marker redistancing/level set method for high-fidelity implicit interface tracking. *SIAM Journal on Scientific Computing*, 32(1):320–348, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NL16]

Narumi:2008:AMD

- [NKTY08] Tetsu Narumi, Shun Kameoka, Makoto Taiji, and Kenji Yasuoka. Accelerating molecular dynamics simulations on PlayStation 3 platform using virtual-GRAPe programming model. *SIAM Journal*

on Scientific Computing, 30(6):3108–3125, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Nguyen:1999:RFM

Nhu Nguyen and Qing Huo Liu. The regular Fourier matrices and nonuniform fast Fourier transforms. *SIAM Journal on Scientific Computing*, 21(1):283–293, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32571>.

Nordstrom:2016:SPT

Jan Nordström and Tomas Lundquist. Summation-by-parts in time: The second derivative. *SIAM Journal on Scientific Computing*, 38(3):A1561–A1586, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Norman:2020:HAA

Matthew Norman and Jeffrey Larkin. A holistic algorithmic approach to improving accuracy, robustness, and computational efficiency for atmospheric dynamics. *SIAM Journal on Scientific Computing*, 42(5):B1302–B1327, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [NLY23] **Nurbekyan:2023:ENG** Levon Nurbekyan, Wanzhou Lei, and Yunan Yang. Efficient natural gradient descent methods for large-scale PDE-based optimization problems. *SIAM Journal on Scientific Computing*, 45(4):A1621–A1655, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1477805>.
- [NMFP16] **Nguyen:2016:FRS** N. C. Nguyen, H. Men, R. M. Freund, and J. Peraire. Functional regression for state prediction using linear PDE models and observations. *SIAM Journal on Scientific Computing*, 38(2):B247–B271, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NMS06] **Negreanu:2006:WFE** M. Negreanu, A.-M. Matache, and C. Schwab. Wavelet filtering for exact controllability of the wave equation. *SIAM Journal on Scientific Computing*, 28(5):1851–1885, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NM13] **Nielsen:2013:AMR** Bjørn Fredrik Nielsen and Kent-Andre Mardal. Analysis of the minimal residual method applied to ill posed optimality systems. *SIAM Journal on Scientific Computing*, 35(2):A785–A814, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NMWI11] **Neilson:2011:MCM** M. P. Neilson, J. A. Mackenzie, S. D. Webb, and R. H. Insall. Modeling cell movement and chemotaxis using pseudopod-based feedback. *SIAM Journal on Scientific Computing*, 33(3):1035–1057, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1035_s1
- [NMAB11] **Nonaka:2011:TDU** A. Nonaka, S. May, A. S. Almgren, and J. B. Bell. A three-dimensional, unsplit Godunov method for scalar conservation laws. *SIAM Journal on Scientific Computing*, 33(4):2039–2062, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p2039_s1
- [NN03] **Naulin:2003:ASF** Volker Naulin and Anders H. Nielsen. Accuracy of spec-

- tral and finite difference schemes in 2D advection problems. *SIAM Journal on Scientific Computing*, 25(1):104–126, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40507>. [NN17]
- [NN05] **Nikolova:2005:AHQ**
Mila Nikolova and Michael K. Ng. Analysis of half-quadratic minimization methods for signal and image recovery. *SIAM Journal on Scientific Computing*, 27(3):937–966, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60086.html.
- [NN12] **Napov:2012:AMM**
Artem Napov and Yvan Notay. An algebraic multigrid method with guaranteed convergence rate. *SIAM Journal on Scientific Computing*, 34(2):A1079–A1109, ????. 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NN14] **Napov:2014:AMM**
Artem Napov and Yvan Notay. Algebraic multigrid for moderate order finite elements. *SIAM Journal on Scientific Computing*, 36(4):A1678–A1707, ????. 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NN17] **Napov:2017:EMM**
Artem Napov and Yvan Notay. An efficient multigrid method for graph Laplacian systems II: Robust aggregation. *SIAM Journal on Scientific Computing*, 39(5):S379–S403, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NN18] **Nikkar:2018:SPO**
Samira Nikkar and Jan Nordström. Summation-by-parts operators for non-simply connected domains. *SIAM Journal on Scientific Computing*, 40(3):A1250–A1273, ????. 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NN19] **Nochetto:2019:CTS**
Ricardo H. Nochetto and Dimitrios Ntoggas. Convergent two-scale filtered scheme for the Monge–Ampère equation. *SIAM Journal on Scientific Computing*, 41(2):B295–B319, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NNH99] **Nordstrom:1999:FRT**
Jan Nordström, Niklas Nordin, and Dan Henningson. The fringe region technique and

- the Fourier method used in the direct numerical simulation of spatially evolving viscous flows. *SIAM Journal on Scientific Computing*, 20(4):1365–1393, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31025>. [Nor07]
- [NNRW09] Oliver Nemitz, Michael Bang Nielsen, Martin Rumpf, and Ross Whitaker. Finite element methods on very large, dynamic tubular grid encoded implicit surfaces. *SIAM Journal on Scientific Computing*, 31(3):2258–2281, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NNT13] Mila Nikolova, Michael K. Ng, and Chi-Pan Tam. On ℓ_1 data fitting and concave regularization for image recovery. *SIAM Journal on Scientific Computing*, 35(1):A397–A430, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Not00a]
- [NO98] James G. Nagy and Dianne P. O’Leary. Restoring images degraded by spatially variant blur. *SIAM Journal on Scientific Computing*, 19(4):1063–1082, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28507>.
- Nordstrom:2007:EBS**
- Jan Nordström. Error bounded schemes for time-dependent hyperbolic problems. *SIAM Journal on Scientific Computing*, 30(1):46–59, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Notay:2000:FCG**
- Yvan Notay. Flexible conjugate gradients. *SIAM Journal on Scientific Computing*, 22(4):1444–1460, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36231>.
- Notay:2000:OOP**
- Yvan Notay. Optimal order preconditioning of finite difference matrices. *SIAM Journal on Scientific Computing*, 21(6):1991–2007, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32077>.
- Nemitz:2009:FEM**
- [NNT13] Mila Nikolova, Michael K. Ng, and Chi-Pan Tam. On ℓ_1 data fitting and concave regularization for image recovery. *SIAM Journal on Scientific Computing*, 35(1):A397–A430, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Not00b]
- Nikolova:2013:DFC**
- [NO98] James G. Nagy and Dianne P. O’Leary. Restoring images degraded by spatially variant blur. *SIAM Journal on Scientific Computing*, 19(4):1063–1082, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28507>.
- Nagy:1998:RID**

- [Not12] **Notay:2012:ABA**
 Yvan Notay. Aggregation-based algebraic multigrid for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 34(4):A2288–A2316, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Not17] **Notay:2017:AMS**
 Yvan Notay. Algebraic multigrid for Stokes equations. *SIAM Journal on Scientific Computing*, 39(5):S88–S111, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Nov15] **Novakovic:2015:HBJ**
 Vedran Novaković. A hierarchically blocked Jacobi SVD algorithm for single and multiple graphics processing units. *SIAM Journal on Scientific Computing*, 37(1):C1–C30, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Nov23] **Novakovic:2023:VTP**
 Vedran Novaković. Vectorization of a thread-parallel Jacobi singular value decomposition method. *SIAM Journal on Scientific Computing*, 45(3):C73–C100, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1478847>.
- [NP93a] **Ng:1993:SCF**
 Esmond Ng and Barry W. Peyton. A supernodal Cholesky factorization algorithm for shared-memory multiprocessors. *SIAM Journal on Scientific Computing*, 14(4):761–769, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP93b] **Ng:1993:BSC**
 Esmond G. Ng and Barry W. Peyton. Block sparse Cholesky algorithms on advanced uniprocessor computers. *SIAM Journal on Scientific Computing*, 14(5):1034–1056, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP96] **Ng:1996:FRL**
 Michael K. Ng and Robert J. Plemmons. Fast recursive least squares adaptive filtering by fast Fourier transform-based conjugate gradient iterations. *SIAM Journal on Scientific Computing*, 17(4):920–941, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP08] **Neumann:2008:CDB**
 Jens Neumann and Constantinos C. Pantelides. Con-

- sistency on domain boundaries for linear PDAE systems. *SIAM Journal on Scientific Computing*, 30(2): 916–936, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP10] Michael K. Ng and Jianyu Pan. Approximate inverse circulant-plus-diagonal preconditioners for Toeplitz-plus-diagonal matrices. *SIAM Journal on Scientific Computing*, 32(3):1442–1464, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP14] Michael K. Ng and Jianyu Pan. Weighted Toeplitz regularized least squares computation for image restoration. *SIAM Journal on Scientific Computing*, 36(1):B94–B121, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NP17] Dang-Manh Nguyen and Jörg Peters. Explicit least-degree boundary filters for discontinuous Galerkin. *SIAM Journal on Scientific Computing*, 39(4):A1741–A1765, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NPS22] **Nedialkov:2022:EBA**
Nedialko Nedialkov, John D. Pryce, and Lena Scholz. An energy-based, always index ≤ 1 and structurally amenable electrical circuit model. *SIAM Journal on Scientific Computing*, 44(4): B1122–B1147, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434611>.
- [NR98] **Neuberger:1998:SGG**
J. W. Neuberger and R. J. Renka. Sobolev gradients and the Ginzburg–Landau functional. *SIAM Journal on Scientific Computing*, 20(2):582–590, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30272>.
- [NRMQ13] **Negri:2013:RBM**
Federico Negri, Gianluigi Rozza, Andrea Manzoni, and Alfio Quarteroni. Reduced basis method for parametrized elliptic optimal control problems. *SIAM Journal on Scientific Computing*, 35(5):A2316–A2340, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NRO22] **Novikov:2022:ADR**
Alexander Novikov, Maxim

- Rakhuba, and Ivan Oseledets. Automatic differentiation for Riemannian optimization on low-rank matrix and tensor-train manifolds. *SIAM Journal on Scientific Computing*, 44(2):A843–A869, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1356774>. [NS21]
- [NRS18] Elias D. Nino-Ruiz, Adrian Sandu, and Xinwei Deng. An ensemble Kalman filter implementation based on modified Cholesky decomposition for inverse covariance matrix estimation. *SIAM Journal on Scientific Computing*, 40(2):A867–A886, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NS06] David P. Nicholls and Jie Shen. A stable high-order method for two-dimensional bounded-obstacle scattering. *SIAM Journal on Scientific Computing*, 28(4):1398–1419, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [NS19] Martin Neumüller and Iain Smears. Time-parallel iterative solvers for parabolic evolution equations. *SIAM Journal on Scientific Computing*, 41(1):C28–C51, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Nelsen:2021:RFM**
- Nicholas H. Nelsen and Andrew M. Stuart. The random feature model for input-output maps between Banach spaces. *SIAM Journal on Scientific Computing*, 43(5):A3212–A3243, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ng:2003:RBP**
- [NSJ03] Michael K. Ng, Hai-Wei Sun, and Xiao-Qing Jin. Recursive-based PCG methods for Toeplitz systems with nonnegative generating functions. *SIAM Journal on Scientific Computing*, 24(5):1507–1529, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37815>.
- Nordsletten:2010:PFE**
- [NSK10] David Nordsletten, Nicolas Smith, and David Kay. A preconditioner for the finite element approximation to the arbitrary Lagrangian–Eulerian Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 32(2):

- 521–543, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NV98]
- Nakatsukasa:2018:AAR**
- [NST18] Yuji Nakatsukasa, Olivier Sète, and Lloyd N. Trefethen. The AAA algorithm for rational approximation. *SIAM Journal on Scientific Computing*, 40(3):A1494–A1522, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Neumuller:2018:FPS** [NV05]
- [NT18] Martin Neumüller and Andreas Thalhammer. A fully parallelizable space-time multilevel Monte Carlo method for stochastic differential equations with additive noise. *SIAM Journal on Scientific Computing*, 40(3):C388–C400, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NV08]
- Nakatsukasa:2020:ARC**
- [NT20] Yuji Nakatsukasa and Lloyd N. Trefethen. An algorithm for real and complex rational minimax approximation. *SIAM Journal on Scientific Computing*, 42(5):A3157–A3179, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [NvdP00]
- Neytcheva:1998:PIA**
- Maya G. Neytcheva and Panayot S. Vassilevski. Preconditioning of indefinite and almost singular finite element elliptic equations. *SIAM Journal on Scientific Computing*, 19(5):1471–1485, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29148>.
- Nabben:2005:CDB**
- R. Nabben and C. Vuik. A comparison of deflation and the balancing preconditioner. *SIAM Journal on Scientific Computing*, 27(5):1742–1759, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60824.html.
- Nobile:2008:EFS**
- F. Nobile and C. Vergara. An effective fluid-structure interaction formulation for vascular dynamics by generalized Robin conditions. *SIAM Journal on Scientific Computing*, 30(2):731–763, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Nool:2000:PJD**
- Margreet Nool and Auke van der Ploeg. A par-

- allel Jacobi–Davidson-type method for solving large generalized eigenvalue problems in magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 22(1):95–112, January 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33290>. [NWY10]
- Ng:2010:SCT**
- Michael K. Ng, Pierre Weiss, and Xiaoming Yuan. Solving constrained total-variation image restoration and reconstruction problems via alternating direction methods. *SIAM Journal on Scientific Computing*, 32(5):2710–2736, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Noble:2022:MDE**
- [NW22] Peter J. Noble and Tobias Weinzierl. A multiresolution discrete element method for triangulated objects with implicit time stepping. *SIAM Journal on Scientific Computing*, 44(4):A2121–A2149, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1421842>. [NWY11]
- Ng:2011:IAD**
- Michael K. Ng, Fan Wang, and Xiaoming Yuan. Inexact alternating direction methods for image recovery. *SIAM Journal on Scientific Computing*, 33(4):1643–1668, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1643_s1.
- Nicolaidis:1997:NMN**
- [NWW97] Roy A. Nicolaidis, Noel Walkington, and Han Wang. Numerical methods for a non-convex optimization problem modeling Martensitic microstructure. *SIAM Journal on Scientific Computing*, 18(4):1122–1141, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28347>. [NX12]
- Narayan:2012:SCM**
- Akil Narayan and Dongbin Xiu. Stochastic collocation methods on unstructured grids in high dimensions via interpolation. *SIAM Journal on Scientific Computing*, 34(3):A1729–A1752, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Narayan:2013:CNN**
- [NX13] Akil Narayan and Dongbin Xiu. Constructing nested

- nodal sets for multivariate polynomial interpolation. *SIAM Journal on Scientific Computing*, 35(5):A2293–A2315, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [OA93]
- [NXDS11] Frédéric Nataf, Hua Xiang, Victorita Dolean, and Nicole Spillane. A coarse space construction based on local Dirichlet-to-Neumann maps. *SIAM Journal on Scientific Computing*, 33(4):1623–1642, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1623_s1
- [NKGK21] Tenavi Nakamura-Zimmerer, Qi Gong, and Wei Kang. Adaptive deep learning for high-dimensional Hamilton–Jacobi–Bellman equations. *SIAM Journal on Scientific Computing*, 43(2):A1221–A1247, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ÖB05]
- [NZZ06] Ahmed Naga, Zhimin Zhang, and Aihui Zhou. Enhancing eigenvalue approximation by gradient recovery. *SIAM Journal on Scientific Computing*, 28(4):1289–1300, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ogielski:1993:SMC] Andrew T. Ogielski and William Aiello. Sparse matrix computations on parallel processor arrays. *SIAM Journal on Scientific Computing*, 14(3):519–530, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OHearn:2020:FSC] Kurt A. O’Hearn, Abdullah Alperen, and Hasan Metin Aktulga. Fast solvers for charge distribution models on shared memory platforms. *SIAM Journal on Scientific Computing*, 42(1):C1–C22, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ozyurt:2005:CSO] Derya B. Özyurt and Paul I. Barton. Cheap second order directional derivatives of stiff ODE embedded functionals. *SIAM Journal on Scientific Computing*, 26(5):1725–1743, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60158>.

- [OB08] **Olshanskii:2008:ALA**
 Maxim A. Olshanskii and Michele Benzi. An augmented Lagrangian approach to linearized problems in hydrodynamic stability. *SIAM Journal on Scientific Computing*, 30(3):1459–1473, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OB21] **Obersteiner:2021:GSA**
 Michael Obersteiner and Hans-Joachim Bungartz. A generalized spatially adaptive sparse grid combination technique with dimension-wise refinement. *SIAM Journal on Scientific Computing*, 43(4):A2381–A2403, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Obe13] **Oberman:2013:NMV**
 Adam M. Oberman. A numerical method for variational problems with convexity constraints. *SIAM Journal on Scientific Computing*, 35(1):A378–A396, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OC03] **Ohnuki:2003:TEA**
 Shinichiro Ohnuki and Weng Chew. Truncation error analysis of multipole expansion. *SIAM Journal on Scientific Computing*, 25(4):1293–1306, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41266>.
- [OC05] **Ohnuki:2005:EMM**
 Shinichiro Ohnuki and Weng Chew. Error minimization of multipole expansion. *SIAM Journal on Scientific Computing*, 26(6):2047–2065, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41797>.
- [OD12] **Oseledets:2012:SLS**
 I. V. Oseledets and S. V. Dolgov. Solution of linear systems and matrix inversion in the TT-format. *SIAM Journal on Scientific Computing*, 34(5):A2718–A2739, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ODN17] **OReilly:2017:SWP**
 Ossian O’Reilly, Eric M. Dunham, and Jan Nordström. Simulation of wave propagation along fluid-filled cracks using high-order summation-by-parts operators and implicit-explicit time stepping. *SIAM Journal on Scientific Computing*, 39(4):B675–B702, 2017. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Oettli:1999:RPH

[Oet99]

Michael H. Oettli. A robust, parallel homotopy algorithm for the symmetric tridiagonal eigenproblem. *SIAM Journal on Scientific Computing*, 20(3):1016–1032, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29825>.

Ortiz-Gracia:2013:RPE

[OGO13]

Luis Ortiz-Gracia and Cornelis W. Oosterlee. Robust pricing of European options with wavelets and the characteristic function. *SIAM Journal on Scientific Computing*, 35(5):B1055–B1084, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ortiz-Gracia:2016:HES

[OGO16]

Luis Ortiz-Gracia and Cornelis W. Oosterlee. A highly efficient Shannon wavelet inverse Fourier technique for pricing European options. *SIAM Journal on Scientific Computing*, 38(1):B118–B143, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[OH21]

Ostrowski:2021:FSF

Jörg Ostrowski and Ralf Hiptmair. Frequency-stable full Maxwell in electroquasistatic gauge. *SIAM Journal on Scientific Computing*, 43(4):B1008–B1028, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Osting:2013:MCC

[OK13]

Braxton Osting and Chiu-Yen Kao. Minimal convex combinations of sequential Laplace–Dirichlet eigenvalues. *SIAM Journal on Scientific Computing*, 35(3):B731–B750, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Opanchuk:2016:POS

[OKD16]

Bogdan Opanchuk, Simon Kiesewetter, and Peter D. Drummond. Parallel optimized sampling for stochastic equations. *SIAM Journal on Scientific Computing*, 38(6):A3857–A3890, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

OConnell:2017:CRO

[OKdSG17]

Meghan O’Connell, Misha E. Kilmer, Eric de Sturler, and Serkan Gugercin. Computing reduced order models via inner-outer Krylov recycling in diffuse optical tomogra-

- phy. *SIAM Journal on Scientific Computing*, 39(2):B272–B297, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Osei-Kuffuor:2014:SAL**
- [OKF14] Daniel Osei-Kuffuor and Jean-Luc Fattebert. A scalable $O(N)$ algorithm for large-scale parallel first-principles molecular dynamics simulations. *SIAM Journal on Scientific Computing*, 36(4):C353–C375, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Overton-Katz:2023:FOE**
- [OKGG⁺23] Nathaniel Overton-Katz, Xinfeng Gao, Stephen Guzik, Oscar Antepara, Daniel T. Graves, and Hans Johansen. A fourth-order embedded boundary finite volume method for the unsteady Stokes equations with complex geometries. *SIAM Journal on Scientific Computing*, 45(5):A2409–A2430, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1532019>.
- Osei-Kuffuor:2015:MRU**
- [OKLS15] Daniel Osei-Kuffuor, Ruipeng Li, and Yousef Saad. Matrix reordering using multilevel graph coarsening for *ILU* preconditioning. *SIAM Journal on Scientific Computing*, 37(1):A391–A419, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Okten:2005:SLE**
- [Ökt05] Giray Ökten. Solving linear equations by Monte Carlo simulation. *SIAM Journal on Scientific Computing*, 27(2):511–531, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60500>.
- Osnes:1998:SSF**
- [OL98] Harald Osnes and Hans Petter Langtangen. A study of some finite difference schemes for a unidirectional stochastic transport equation. *SIAM Journal on Scientific Computing*, 19(3):799–812, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25910>.
- O’Leary:2001:NOP**
- [O’L01] Dianne P. O’Leary. Near-optimal parameters for Tikhonov and other regularization methods. *SIAM Journal on Scientific Computing*, 23(4):1161–1171, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

(electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35414>.

Oliveira:2001:EPQ

[Oli01]

Suely Oliveira. Exact prediction of QR fill-in by row-merge trees. *SIAM Journal on Scientific Computing*, 22(6):1962–1973, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33396>.

Olson:2007:AMP

[Ols07]

Luke Olson. Algebraic multigrid preconditioning of high-order spectral elements for elliptic problems on a simplicial mesh. *SIAM Journal on Scientific Computing*, 29(5):2189–2209, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Olgaard:2008:ACG

[ØLW08]

Kristian B. Ølgaard, Anders Logg, and Garth N. Wells. Automated code generation for discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 31(2):849–864, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ong:1994:URT

[Ong94]

Maria Elizabeth G. Ong. Uniform refinement of a tetra-

hedron. *SIAM Journal on Scientific Computing*, 15(5):1134–1144, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ong:1997:HBP

[Ong97]

Maria Elizabeth G. Ong. Hierarchical basis preconditioners in three dimensions. *SIAM Journal on Scientific Computing*, 18(2):479–498, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27653>.

Otto:2022:OOP

[OPR22]

Samuel E. Otto, Alberto Padovan, and Clarence W. Rowley. Optimizing oblique projections for nonlinear systems using trajectories. *SIAM Journal on Scientific Computing*, 44(3):A1681–A1702, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1425815>.

Otto:2023:MRN

[OPR23]

Samuel E. Otto, Alberto Padovan, and Clarence W. Rowley. Model reduction for nonlinear systems by balanced truncation of state and gradient covariance. *SIAM Journal on Scientific Com-*

- puting, 45(5):A2325–A2355, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1513228>.
- [OPRB06] **Oden:2006:MSM** [OR18] J. Tinsley Oden, Serge Prudhomme, Albert Romkes, and Paul T. Bauman. Multi-scale modeling of physical phenomena: Adaptive control of models. *SIAM Journal on Scientific Computing*, 28(6):2359–2389, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OQRY18] **Olshanskii:2018:FEM** [ORO05] Maxim A. Olshanskii, Annalisa Quaini, Arnold Reusken, and Vladimir Yushutin. A finite element method for the surface Stokes problem. *SIAM Journal on Scientific Computing*, 40(4):A2492–A2518, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OR02] **Olshanskii:2002:NSE** [ORST12] Maxim A. Olshanskii and Arnold Reusken. Navier–Stokes equations in rotation form: a robust multi-grid solver for the velocity problem. *SIAM Journal on Scientific Computing*, 23(5):1683–1706, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ovall:2018:HOM** Jeffrey S. Ovall and Samuel E. Reynolds. A high-order method for evaluating derivatives of harmonic functions in planar domains. *SIAM Journal on Scientific Computing*, 40(3):A1915–A1935, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ogita:2005:ASD** Takeshi Ogita, Siegfried M. Rump, and Shin’ichi Oishi. Accurate sum and dot product. *SIAM Journal on Scientific Computing*, 26(6):1955–1988, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60181>.
- Of:2012:CDG** G. Of, G. J. Rodin, O. Steinbach, and M. Taus. Coupling of discontinuous Galerkin finite element and boundary element methods. *SIAM Journal on Scientific Computing*, 34(3):A1659–A1677, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [OS95] **Osborne:1995:MPA**
 M. R. Osborne and G. K. Smyth. A modified Prony algorithm for exponential function fitting. *SIAM Journal on Scientific Computing*, 16(1):119–138, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OS98] **Olsson:1998:SVP**
 Hans Olsson and Gustaf Söderlind. Stage value predictors and efficient Newton iterations in implicit Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 20(1):185–202, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30696>.
- [OS14] **Ohlberger:2014:DRA**
 Mario Ohlberger and Kathrin Smetana. A dimensional reduction approach based on the application of reduced basis methods in the framework of hierarchical model reduction. *SIAM Journal on Scientific Computing*, 36(2):A714–A736, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OS15] **Ohlberger:2015:ECL**
 M. Ohlberger and F. Schindler. Error control for the localized reduced basis multiscale method with adaptive on-line enrichment. *SIAM Journal on Scientific Computing*, 37(6):A2865–A2895, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [OSCE00] **Ould-Salihi:2000:bfd**
 M. L. Ould-Salihi, G.-H. Cottet, and M. El Hamraoui. Blending finite-difference and vortex methods for incompressible flow computations. *SIAM Journal on Scientific Computing*, 22(5):1655–1674, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35076>.
- [Ose11] **Oseledets:2011:TTD**
 I. V. Oseledets. Tensor-train decomposition. *SIAM Journal on Scientific Computing*, 33(5):2295–2317, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2295_s1.
- [OSS22] **Oster:2022:AOF**
 Mathias Oster, Leon Sallandt, and Reinhold Schneider. Approximating optimal feedback controllers of finite horizon control problems using hierarchical tensor formats. *SIAM Journal on Scientific Computing*, 44

- (3):B746–B770, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1412190>. [OT11]
- [OST11] Luke N. Olson, Jacob B. Schroder, and Raymond S. Tuminaro. A general interpolation strategy for algebraic multigrid using energy minimization. *SIAM Journal on Scientific Computing*, 33(2):966–991, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p966_s1. [Olson:2011:GIS]
- [OSU10] G. Of, O. Steinbach, and P. Urthaler. Fast evaluation of volume potentials in boundary element methods. *SIAM Journal on Scientific Computing*, 32(2):585–602, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Of:2010:FEV]
- [OT09] I. V. Oseledets and E. E. Tyrtyshnikov. Breaking the curse of dimensionality, or how to use SVD in many dimensions. *SIAM Journal on Scientific Computing*, 31(5):3744–3759, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Oseledets:2009:BCD]
- [OTV19] Sheehan Olver, Alex Townsend, and Geoffrey Vasil. A sparse spectral method on triangles. *SIAM Journal on Scientific Computing*, 41(6):A3728–A3756, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Olver:2019:SSM]
- [OV07] Maxim A. Olshanskii and Yuri V. Vassilevski. Pressure Schur complement preconditioners for the discrete Oseen problem. *SIAM Journal on Scientific Computing*, 29(6):2686–2704, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Olshanskii:2007:PSC]
- [OVV17] Sarah Osborn, Panayot S. Vassilevski, and Umberto Oseledets. Algebraic wavelet transform via quantics tensor train decomposition. *SIAM Journal on Scientific Computing*, 33(3):1315–1328, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1315_s1. [Oseledets:2011:AWT]
- [Osborn:2017:MHS] Sarah Osborn, Panayot S. Vassilevski, and Umberto

Villa. A multilevel, hierarchical sampling technique for spatially correlated random fields. *SIAM Journal on Scientific Computing*, 39(5): S543–S562, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Oosterlee:1998:EPM

- [OW98] C. W. Oosterlee and T. Washio. An evaluation of parallel multigrid as a solver and a preconditioner for singularly perturbed problems. *SIAM Journal on Scientific Computing*, 19(1):87–110, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30282>. [OWO14]

Oosterlee:2000:KSA

- [OW00] C. W. Oosterlee and T. Washio. Krylov subspace acceleration of nonlinear multigrid with application to recirculating flows. *SIAM Journal on Scientific Computing*, 21(5): 1670–1690, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33809>. [OX17]

Oosterlee:2002:GSO

- [OW02] C. W. Oosterlee and R. Wiends. A genetic search for optimal multigrid compo-

nents within a Fourier analysis setting. *SIAM Journal on Scientific Computing*, 24(3):924–944, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39795>.

Osting:2014:MDE

Braxton Osting, Chris D. White, and Édouard Oudet. Minimal Dirichlet energy partitions for graphs. *SIAM Journal on Scientific Computing*, 36(4):A1635–A1651, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Olshanskii:2017:TFE

Maxim A. Olshanskii and Xi-anmin Xu. A trace finite element method for PDEs on evolving surfaces. *SIAM Journal on Scientific Computing*, 39(4):A1301–A1319, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ou:2022:SSD

Xiaofeng Ou and Jianlin Xia. SuperDC: Superfast divide-and-conquer eigenvalue decomposition with improved stability for rank-structured matrices. *SIAM Journal on Scientific Computing*, 44(5): A3041–A3066, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

(electronic). URL <https://epubs.siam.org/doi/10.1137/21M1438633>.

Ortner:2016:ACB

[OZ16]

Christoph Ortner and Lei Zhang. Atomistic/continuum blending with ghost force correction. *SIAM Journal on Scientific Computing*, 38(1): A346–A375, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Picasso:2011:NSS

[PABG11]

Marco Picasso, Frédéric Alauzet, Houman Borouchaki, and Paul-Louis George. A numerical study of some Hessian recovery techniques on isotropic and anisotropic meshes. *SIAM Journal on Scientific Computing*, 33(3): 1058–1076, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1058_s1

Parpas:2017:MPG

[Par17]

Panos Parpas. A multi-level proximal gradient algorithm for a class of composite optimization problems. *SIAM Journal on Scientific Computing*, 39(5):S681–S701, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pathria:1997:CFI

[Pat97]

D. Pathria. The correct formulation of intermediate boundary conditions for Runge–Kutta time integration of initial boundary value problems. *SIAM Journal on Scientific Computing*, 18(5): 1255–1266, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27394>.

Perez-Arancibia:2019:PDI

[PATF19]

Carlos Pérez-Arancibia, Catalin Turc, and Luiz Faria. Planewave density interpolation methods for 3D Helmholtz boundary integral equations. *SIAM Journal on Scientific Computing*, 41(4):A2088–A2116, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pavarino:1998:PMS

[Pav98]

Luca F. Pavarino. Preconditioned mixed spectral element methods for elasticity and Stokes problems. *SIAM Journal on Scientific Computing*, 19(6):1941–1957, November 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30714>.

Pazner:2020:ELO

[Paz20]

Will Pazner. Efficient low-order refined preconditioners for high-order matrix-free continuous and discontinuous Galerkin methods. *SIAM Journal on Scientific Computing*, 42(5):A3055–A3083, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Prudencio:2005:PFS

[PBC05]

Ernesto E. Prudencio, Richard Byrd, and Xiao-Chuan Cai. Parallel full space SQP Lagrange–Newton–Krylov–Schwarz algorithms for PDE-constrained optimization problems. *SIAM Journal on Scientific Computing*, 27(4):1305–1328, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60299.html.

Portugal:1996:IIP

[PBj+96]

L. Portugal, F. Bastos, J. Júdice, J. Paixão, and T. Terlaky. An investigation of interior-point algorithms for the linear transportation problem. *SIAM Journal on Scientific Computing*, 17(5):1202–1223, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25828>.

Pajot:2014:GAC

[PBP14]

Anthony Pajot, Loïc Barthe, and Mathias Paulin. Globally adaptive control variate for robust numerical integration. *SIAM Journal on Scientific Computing*, 36(4):A1708–A1730, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Prins:2015:LSM

[PBtTB+15]

C. R. Prins, R. Beltman, J. H. M. ten Thijs Boonkamp, W. L. IJzerman, and T. W. Tukker. A least-squares method for optimal transport using the Monge–Ampère equation. *SIAM Journal on Scientific Computing*, 37(6):B937–B961, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Ponce:2018:NAM

[PBV18]

C. Ponce, D. S. Bindel, and P. S. Vassilevski. A nonlinear algebraic multigrid framework for the power flow equations. *SIAM Journal on Scientific Computing*, 40(3):B812–B833, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Peherstorfer:2014:LDE

[PBWB14]

Benjamin Peherstorfer, Daniel Butnaru, Karen Willcox, and Hans-Joachim Bungartz. Lo-

- calized discrete empirical interpolation method. *SIAM Journal on Scientific Computing*, 36(1):A168–A192, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [PCD17]
- [PC98] Mario Putti and Christian Cordes. Finite element approximation of the diffusion operator on tetrahedra. *SIAM Journal on Scientific Computing*, 19(4):1154–1168, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29071>. **Putti:1998:FEA**
- [PC07] Ernesto E. Prudencio and Xiao-Chuan Cai. Parallel multilevel restricted Schwarz preconditioners with pollution removing for PDE-constrained optimization. *SIAM Journal on Scientific Computing*, 29(3):964–985, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Prudencio:2007:PMR**
- [PC21] Samuel F. Potter and Maria K. Cameron. Jet marching methods for solving the eikonal equation. *SIAM Journal on Scientific Computing*, 43(6):A4121–A4146, ??? 2021. CODEN SJOCE3. **Potter:2021:JMM**
- ISSN 1064-8275 (print), 1095-7197 (electronic). **Pouransari:2017:FHS**
- Hadi Pouransari, Pieter Coulier, and Eric Darve. Fast hierarchical solvers for sparse matrices using extended sparsification and low-rank approximation. *SIAM Journal on Scientific Computing*, 39(3):A797–A830, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Pinelli:1996:EIS**
- [PCDB96] A. Pinelli, W. Couzy, M. O. Deville, and C. Benocci. An efficient iterative solution method for the Chebyshev collocation of advection-dominated transport problems. *SIAM Journal on Scientific Computing*, 17(3):647–657, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25383>. **Parsani:2016:ESS**
- [PCFN16] Matteo Parsani, Mark H. Carpenter, Travis C. Fisher, and Eric J. Nielsen. Entropy stable staggered grid discontinuous spectral collocation methods of any order for the compressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 38(5):A3129–A3162,

???? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Peterka:2016:SAD

- [PCL+16] Tom Peterka, Hadrien Croubois, Nan Li, Esteban Rangel, and Franck Cappello. Self-adaptive density estimation of particle data. *SIAM Journal on Scientific Computing*, 38(5):S646–S666, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pouransari:2015:OAF

- [PD15] Hadi Pouransari and Eric Darve. Optimizing the adaptive fast multipole method for fractal sets. *SIAM Journal on Scientific Computing*, 37(2):A1040–A1066, ????. 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Perrey-Debain:2009:GAE

- [PDA09] Emmanuel Perrey-Debain and I. David Abrahams. A general asymptotic expansion formula for integrals involving high-order orthogonal polynomials. *SIAM Journal on Scientific Computing*, 31(5):3884–3904, ????. 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Plessix:1999:WIR

- [PDC99] René-Edouard Plessix, Yann-Hervé De Roeck, and Guy

Chavent. Waveform inversion of reflection seismic data for kinematic parameters by local optimization. *SIAM Journal on Scientific Computing*, 20(3):1033–1052, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31198>.

Phipps:2017:EEP

- [PDE+17] E. Phipps, M. D’Elia, H. C. Edwards, M. Hoemmen, J. Hu, and S. Rajamanickam. Embedded ensemble propagation for improving performance, portability, and scalability of uncertainty quantification on emerging computational architectures. *SIAM Journal on Scientific Computing*, 39(2):C162–C193, ????. 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Peherstorfer:2020:SDE

- [PDG20] Benjamin Peherstorfer, Zlatko Drmac, and Serkan Gugercin. Stability of discrete empirical interpolation and gappy proper orthogonal decomposition with randomized and deterministic sampling points. *SIAM Journal on Scientific Computing*, 42(5):A2837–A2864, ????. 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [PDH09] **Pares:2009:EBL**
 Núria Parés, Pedro Díez, and Antonio Huerta. Exact bounds for linear outputs of the advection-diffusion-reaction equation using flux-free error estimates. *SIAM Journal on Scientific Computing*, 31(4):3064–3089, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PDMY14] **Poulson:2014:PBA**
 Jack Poulson, Laurent Demanet, Nicholas Maxwell, and Lexing Ying. A parallel butterfly algorithm. *SIAM Journal on Scientific Computing*, 36(1):C49–C65, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PdSM⁺06] **Parks:2006:RKS**
 Michael L. Parks, Eric de Sturler, Greg Mackey, Duane D. Johnson, and Spanandan Maiti. Recycling Krylov subspaces for sequences of linear systems. *SIAM Journal on Scientific Computing*, 28(5):1651–1674, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PDTVM08] **Pardo:2008:PES**
 D. Pardo, L. Demkowicz, C. Torres-Verdín, and C. Michler. PML enhanced with a self-adaptive goal-oriented *hp*-finite element method: Simulation of through-casing borehole resistivity measurements. *SIAM Journal on Scientific Computing*, 30(6):2948–2964, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PE00] **Park:2000:STM**
 Haesun Park and Lars Eldén. Schur-type methods for solving least squares problems with Toeplitz structure. *SIAM Journal on Scientific Computing*, 22(2):406–430, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34742>.
- [PEC⁺14] **Phillips:2014:BPE**
 Edward G. Phillips, Howard C. Elman, Eric C. Cyr, John N. Shadid, and Roger P. Pawlowski. A block preconditioner for an exact penalty formulation for stationary MHD. *SIAM Journal on Scientific Computing*, 36(6):B930–B951, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PEdD12] **Pichot:2012:GMH**
 G. Pichot, J. Erhel, and J.-R. de Dreuzy. A generalized mixed hybrid mortar method

- for solving flow in stochastic discrete fracture networks. *SIAM Journal on Scientific Computing*, 34(1):B86–B105, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Pel93]
- [Peh20a] Benjamin Peherstorfer. Model reduction for transport-dominated problems via online adaptive bases and adaptive sampling. *SIAM Journal on Scientific Computing*, 42(5):A2803–A2836, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Peh20b] Benjamin Peherstorfer. Sampling low-dimensional Markovian dynamics for preasymptotically recovering reduced models from data with operator inference. *SIAM Journal on Scientific Computing*, 42(5):A3489–A3515, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pek12] Dmitry Pekurovsky. P3DFFT: a framework for parallel computations of Fourier transforms in three dimensions. *SIAM Journal on Scientific Computing*, 34(4):C192–C209, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Pel93]
- [Pel93] Richard B. Pelz. Parallel compact FFTs for real sequences. *SIAM Journal on Scientific Computing*, 14(4):914–935, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pel18] Marica Pelanti. Wave structure similarity of the HLLC and Roe Riemann solvers: Application to low Mach number preconditioning. *SIAM Journal on Scientific Computing*, 40(3):A1836–A1859, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PELY13] Jack Poulson, Björn Engquist, Siwei Li, and Lexing Ying. A parallel sweeping preconditioner for heterogeneous 3D Helmholtz equations. *SIAM Journal on Scientific Computing*, 35(3):C194–C212, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pem93] Richard B. Pember. Numerical methods for hyperbolic conservation laws with stiff

- relaxation. II. higher-order Godunov methods. *SIAM Journal on Scientific Computing*, 14(4):824–859, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pen00] Thilo Penzl. A cyclic low-rank Smith method for large sparse Lyapunov equations. *SIAM Journal on Scientific Computing*, 21(4):1401–1418, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34766>.
- [Pet93] N. Anders Petersson. Computing periodic gravity waves on water by using moving composite overlapping grids. *SIAM Journal on Scientific Computing*, 14(6):1339–1358, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pet99a] N. Anders Petersson. An algorithm for assembling overlapping grid systems. *SIAM Journal on Scientific Computing*, 20(6):1995–2022, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29291>.
- [Pet99b] N. Anders Petersson. Hole-cutting for three-dimensional overlapping grids. *SIAM Journal on Scientific Computing*, 21(2):646–665, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32910>.
- [Pet01] N. B. Petrovskaya. Modification of a finite volume scheme for Laplace’s equation. *SIAM Journal on Scientific Computing*, 23(3):891–909, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36892>.
- [Pet05] N. B. Petrovskaya. On oscillations in discontinuous Galerkin discretization schemes for steady state problems. *SIAM Journal on Scientific Computing*, 27(4):1329–1346, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60308.html.

- [PF94] **Pommerell:1994:MAP**
 Claude Pommerell and Wolfgang Fichtner. Memory aspects and performance of iterative solvers. *SIAM Journal on Scientific Computing*, 15(2):460–473, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [PF12] **Parker:2012:SGD**
 Albert Parker and Colin Fox. Sampling Gaussian distributions in Krylov spaces with conjugate gradients. *SIAM Journal on Scientific Computing*, 34(3):B312–B334, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PFS21] **Papadopoulos:2021:CMS**
 Ioannis P. A. Papadopoulos, Patrick E. Farrell, and Thomas M. Surowiec. Computing multiple solutions of topology optimization problems. *SIAM Journal on Scientific Computing*, 43(3):A1555–A1582, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PG22] **Petersson:2022:OCC**
 N. Anders Petersson and Fortino Garcia. Optimal control of closed quantum systems via B-splines with carrier waves. *SIAM Journal on Scientific Computing*, 44(6):A3592–A3616, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1429618>.
- [PGLD96] **Passi:1996:CAA**
 Ranjit M. Passi, R. Kent Goodrich, Mark Limber, and John C. Derber. A convolution algorithm with application to data assimilation. *SIAM Journal on Scientific Computing*, 17(4):942–955, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PGW17] **Peherstorfer:2017:DDR**
 Benjamin Peherstorfer, Serkan Gugercin, and Karen Willcox. Data-driven reduced model construction with time-domain Loewner models. *SIAM Journal on Scientific Computing*, 39(5):A2152–A2178, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PH13] **Peterson:2013:PPA**
 J. L. Peterson and G. W. Hammett. Positivity preservation and advection algorithms with applications to edge plasma turbulence.

- SIAM Journal on Scientific Computing*, 35(3):B576–B605, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PH16] Bor Plestenjak and Michiel E. Hochstenbach. Roots of bivariate polynomial systems via determinantal representations. *SIAM Journal on Scientific Computing*, 38(2):A765–A788, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PHW19] **Plestenjak:2016:RBP** Adam G. Peddle, Terry Haut, and Beth Wingate. Parareal convergence for oscillatory PDEs with finite time-scale separation. *SIAM Journal on Scientific Computing*, 41(6):A3476–A3497, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PHA18] **Pan:2018:CAF** Qiyuan Pang, Kenneth L. Ho, and Haizhao Yang. Interpolative decomposition butterfly factorization. *SIAM Journal on Scientific Computing*, 42(2):A1097–A1115, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pic03] **Picasso:2003:AEI** M. Picasso. An anisotropic error indicator based on Zienkiewicz–Zhu error estimator: Application to elliptic and parabolic problems. *SIAM Journal on Scientific Computing*, 24(4):1328–1355, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39857>.
- [PHJ11] **Pedersen:2011:ESS** Andreas Pedersen, Sigurdur F. Hafstein, and Hannes Jónsson. Efficient sampling of saddle points with the minimum-mode following method. *SIAM Journal on Scientific Computing*, 33(2):633–652, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Peddle:2019:PCO**
- Pang:2020:IDB**

- [Pic10] **Picasso:2010:NSA**
 Marco Picasso. Numerical study of an anisotropic error estimator in the $L^2(H^1)$ norm for the finite element discretization of the wave equation. *SIAM Journal on Scientific Computing*, 32(4):2213–2234, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pip13] **Pippig:2013:PEF**
 Michael Pippig. PFFT: an extension of FFTW to massively parallel architectures. *SIAM Journal on Scientific Computing*, 35(3):C213–C236, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pir16] **Piret:2016:RBF**
 Cécile Piret. A radial basis function based frames strategy for bypassing the Runge phenomenon. *SIAM Journal on Scientific Computing*, 38(4):A2262–A2282, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PJ96] **Pruess:1996:SHO**
 Steven Pruess and Hongsung Jin. A stable high-order interpolation scheme for superconvergent data. *SIAM Journal on Scientific Computing*, 17(3):714–724, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25748>.
- [PJZ23] **Pang:2023:AAB**
 Gang Pang, Songsong Ji, and Jiwei Zhang. Accurate absorbing boundary conditions for the two-dimensional nonlocal Schrödinger equations. *SIAM Journal on Scientific Computing*, 45(4):A1656–A1689, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1442048>.
- [PK19] **Phipps:2019:SST**
 Eric T. Phipps and Tamara G. Kolda. Software for sparse tensor decomposition on emerging computing architectures. *SIAM Journal on Scientific Computing*, 41(3):C269–C290, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PKA22] **Pusztay:2022:CPB**
 Joseph V. Pusztay, Matthew G. Knepley, and Mark F. Adams. Conservative projection between finite element and particle bases. *SIAM Journal on Scientific Computing*, 44(4):C310–C319, 2022. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1454079>.

Parsani:2013:OER

[PKD13]

M. Parsani, David I. Ketcheson, and W. Deconinck. Optimized explicit Runge–Kutta schemes for the spectral difference method applied to wave propagation problems. *SIAM Journal on Scientific Computing*, 35(2):A957–A986, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pazner:2023:LOP

[PKD23]

Will Pazner, Tzanio Kolev, and Clark R. Dohrmann. Low-order preconditioning for the high-order finite element de Rham complex. *SIAM Journal on Scientific Computing*, 45(2):A675–A702, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1486534>.

Pan:2014:PTD

[PKNS14]

Jianyu Pan, Rihuan Ke, Michael K. Ng, and Hai-Wei Sun. Preconditioning techniques for diagonal-times-Toeplitz matrices in fractional diffusion equations. *SIAM Journal on Scientific Computing*, 36(6):

A2698–A2719, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Park:2013:ETA

[PKR⁺13]

H. Park, D. A. Knoll, R. M. Rauenzahn, C. K. Newman, J. D. Densmore, and A. B. Wollaber. An efficient and time accurate, moment-based scale-bridging algorithm for thermal radiative transfer problems. *SIAM Journal on Scientific Computing*, 35(5):S18–S41, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Perse:2021:GPC

[PKS21]

Benedikt Perse, Katharina Kormann, and Eric Sonnendrücker. Geometric particle-in-cell simulations of the Vlasov–Maxwell system in curvilinear coordinates. *SIAM Journal on Scientific Computing*, 43(1):B194–B218, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pao:2003:BMI

[PL03]

C. V. Pao and Xin Lu. Block monotone iterations for numerical solutions of fourth-order nonlinear elliptic boundary value problems. *SIAM Journal on Scientific Computing*, 25(1):164–185, January 2003. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Pla98]
- [PL06] Marica Pelanti and Randall J. LeVeque. High-resolution finite volume methods for dusty gas jets and plumes. *SIAM Journal on Scientific Computing*, 28(4):1335–1360, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Pelanti:2006:HRF**
- [PL12] Zhen Peng and Jin-Fa Lee. A scalable nonoverlapping and nonconformal domain decomposition method for solving time-harmonic Maxwell equations in \mathbf{R}^3 . *SIAM Journal on Scientific Computing*, 34(3):A1266–A1295, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Peng:2012:SNN**
- [PL21] Zhichao Peng and Fengyan Li. Asymptotic preserving IMEX-DG-S schemes for linear kinetic transport equations based on Schur complement. *SIAM Journal on Scientific Computing*, 43(2):A1194–A1220, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Peng:2021:API**
- [Pla98] Todd Plantenga. A trust region method for nonlinear programming based on primal interior-point techniques. *SIAM Journal on Scientific Computing*, 20(1):282–305, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28440>. **Plantenga:1998:TRM**
- [Pla15] Rodrigo B. Platte. C^∞ compactly supported and positive definite radial kernels. *SIAM Journal on Scientific Computing*, 37(4):A1934–A1956, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Platte:2015:CSP**
- [PLK19] Guofei Pang, Lu Lu, and George Em Karniadakis. fPINNs: Fractional physics-informed neural networks. *SIAM Journal on Scientific Computing*, 41(4):A2603–A2626, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Pang:2019:FFP**
- [PLT⁺21] E. Piersanti, J. J. Lee, T. Thompson, K.-A. Mardal, and M. E. Rognes. Parameter robust preconditioning by congruence for multiple-network poroelasticity. *SIAM*

Journal on Scientific Computing, 43(4):B984–B1007, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Paulin:2022:DMC

[PLVG⁺22]

Christina Paulin, Antoine Llor, Thibaud Vazquez-Gonzalez, Jean-Philippe Perlat, and Éric Heulhard de Montigny. Doubly monotonic constraint on interpolators: Bridging second-order to singularity preservation to cancel “Numerical wetting” in transport schemes. *SIAM Journal on Scientific Computing*, 44(3):A1227–A1253, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140314X>.

Phillips:1995:MCM

[PM95]

Timothy N. Phillips and Alaeddin Malek. Multidomain collocation methods for the stream function formulation of the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 16(4):773–797, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pinnegar:2003:BGT

[PM03]

C. R. Pinnegar and L. Mansinha. The bi-Gaussian S-transform. *SIAM Journal on Scien-*

tific Computing, 24(5):1678–1692, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36980>.

Puscas:2015:TDC

[PM15]

Maria Adela Puscas and Laurent Monasse. A three-dimensional conservative coupling method between an inviscid compressible flow and a moving rigid solid. *SIAM Journal on Scientific Computing*, 37(6):B884–B909, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Peng:2016:SMR

[PM16]

Liqian Peng and Kamran Mohseni. Symplectic model reduction of Hamiltonian systems. *SIAM Journal on Scientific Computing*, 38(1):A1–A27, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pauletti:2015:IIA

[PMCA15]

M. Sebastian Pauletti, Massimiliano Martinelli, Nicola Cavallini, and Pablo Antolin. Iगतools: an isogeometric analysis library. *SIAM Journal on Scientific Computing*, 37(4):C465–C496, 2015. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic).
- [PMH⁺16] **Pestana:2016:EBP** J. Pestana, R. Muddle, M. Heil, F. Tisseur, and M. Mihajlović. Efficient block preconditioning for a C^1 finite element discretization of the Dirichlet biharmonic problem. *SIAM Journal on Scientific Computing*, 38(1): A325–A345, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PMR16] **Peterson:2016:RMC** J. R. Peterson, J. E. Morel, and J. C. Ragusa. Residual Monte Carlo for the one-dimensional particle transport equation. *SIAM Journal on Scientific Computing*, 38(6):B941–B961, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PMSB12] **Potschka:2012:NPB** A. Potschka, M. S. Mommer, J. P. Schlöder, and H. G. Bock. Newton–Picard-based preconditioning for linear-quadratic optimization problems with time-periodic parabolic PDE constraints. *SIAM Journal on Scientific Computing*, 34(2): A1214–A1239, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PMSG14] **Petra:2014:CFI** Noemi Petra, James Martin, Georg Stadler, and Omar Ghattas. A computational framework for infinite-dimensional Bayesian inverse problems, Part II: Stochastic Newton MCMC with application to ice sheet flow inverse problems. *SIAM Journal on Scientific Computing*, 36(4): A1525–A1555, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PMSI21] **Popov:2021:MEK** Andrey A. Popov, Changhong Mou, Adrian Sandu, and Traian Iliescu. A multifidelity ensemble Kalman filter with reduced order control variates. *SIAM Journal on Scientific Computing*, 43(2):A1134–A1162, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PN19] **Pulch:2019:BTM** Roland Pulch and Akil Narayan. Balanced truncation for model order reduction of linear dynamical systems with quadratic outputs. *SIAM Journal on Scientific Computing*, 41(4): A2270–A2295, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [PNL⁺21] **Pan:2021:ONT** Junjun Pan, Michael K. Ng, Ye Liu, Xiongjun Zhang, and Hong Yan. Orthogonal non-negative Tucker decomposition. *SIAM Journal on Scientific Computing*, 43(1):B55–B81, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PNP13] **Peng:2013:MGO** X. Peng, K. Niakhai, and B. Protas. A method for geometry optimization in a simple model of two-dimensional heat transfer. *SIAM Journal on Scientific Computing*, 35(5):B1105–B1131, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PNW16] **Pan:2016:FIS** Jianyu Pan, Michael K. Ng, and Hong Wang. Fast iterative solvers for linear systems arising from time-dependent space-fractional diffusion equations. *SIAM Journal on Scientific Computing*, 38(5):A2806–A2826, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PoH09] **Prill:2009:SAM** F. Prill, M. Lukáčová-Medvičová, and R. Hartmann. Smoothed aggregation multi-grid for the discontinuous Galerkin method. *SIAM Journal on Scientific Computing*, 31(5):3503–3528, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pol16] **Pollock:2016:IMS** Sara Pollock. An improved method for solving quasi-linear convection diffusion problems on a coarse mesh. *SIAM Journal on Scientific Computing*, 38(2):A1121–A1145, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Por01] **Porter:2001:IPM** R. Michael Porter. An interpolating polynomial method for numerical conformal mapping. *SIAM Journal on Scientific Computing*, 23(3):1027–1041, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35525>.
- [PP97] **Parks:1997:CLA** Harold R. Parks and Jon T. Pitts. Computing least area hypersurfaces spanning arbitrary boundaries. *SIAM Journal on Scientific Computing*, 18(3):886–917, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

epubs.siam.org/sam-bin/dbq/article/27890.

Pernice:2005:SER

[PP05]

Michael Pernice and Bobby Philip. Solution of equilibrium radiation diffusion problems using implicit adaptive mesh refinement. *SIAM Journal on Scientific Computing*, 27(5):1709–1726, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60906.html.

Peraire:2008:CDG

[PP08a]

J. Peraire and P.-O. Persson. The Compact Discontinuous Galerkin (CDG) method for elliptic problems. *SIAM Journal on Scientific Computing*, 30(4):1806–1824, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Persson:2008:NGP

[PP08b]

P.-O. Persson and J. Peraire. Newton–GMRES preconditioning for discontinuous Galerkin discretizations of the Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 30(6):2709–2733, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Patz:2012:CFE

[PP12a]

Torben Pätz and Tobias Preusser. Composite finite

elements for a phase change model. *SIAM Journal on Scientific Computing*, 34(5):B672–B691, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Popov:2012:DRT

[PP12b]

Pavel P. Popov and Stephen B. Pope. The direct Richardson p -th order (DR p) schemes: a new class of time integration schemes for stochastic differential equations. *SIAM Journal on Scientific Computing*, 34(1):A137–A160, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA137_s1.

Pippig:2013:PTD

[PP13]

Michael Pippig and Daniel Potts. Parallel three-dimensional nonequispaced fast Fourier transforms and their application to particle simulation. *SIAM Journal on Scientific Computing*, 35(4):C411–C437, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Petschow:2013:HPS

[PPB13]

M. Petschow, E. Peise, and P. Bientinesi. High-performance solvers for dense Hermitian eigenproblems. *SIAM Journal on Scientific*

- Computing*, 35(1):C1–C22, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PPR05] **Pareschi:2005:CRK** [PPT11]
Lorenzo Pareschi, Gabriella Puppo, and Giovanni Russo. Central Runge–Kutta schemes for conservation laws. *SIAM Journal on Scientific Computing*, 26(3):979–999, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42069>.
- [PPRS19] **Pidatella:2019:SCF** [PQOB14]
Rosa Maria Pidatella, Gabriella Puppo, Giovanni Russo, and Pietro Santagati. Semi-conservative finite volume schemes for conservation laws. *SIAM Journal on Scientific Computing*, 41(3):B576–B600, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PPS22] **Palitta:2022:STR** [PQR20]
Davide Palitta, Stefano Pozza, and Valeria Simoncini. The short-term rational Lanczos method and applications. *SIAM Journal on Scientific Computing*, 44(4):A2843–A2870, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1403254>.
- Peter:2011:NAS**
Thomas Peter, Daniel Potts, and Manfred Tasche. Non-linear approximation by sums of exponentials and translates. *SIAM Journal on Scientific Computing*, 33(4):1920–1947, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1920_s1.
- Petschow:2014:IAP**
M. Petschow, E. S. Quintana-Ortí, and P. Bientinesi. Improved accuracy and parallelism for MRRR-based eigensolvers — a mixed precision approach. *SIAM Journal on Scientific Computing*, 36(2):C240–C263, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Pichi:2020:ROM**
Federico Pichi, Annalisa Quaini, and Gianluigi Rozza. A reduced order modeling technique to study bifurcating phenomena: Application to the Gross–Pitaevskii equation. *SIAM Journal on Scientific Computing*, 42(5):B1115–B1135, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pommerell:1996:MVI

- [PR96] Claude Pommerell and Roland Rühl. Migration of vectorized iterative solvers to distributed-memory architectures. *SIAM Journal on Scientific Computing*, 17(1):239–259, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Pareschi:2001:TRM

- [PR01] Lorenzo Pareschi and Giovanni Russo. Time relaxed Monte Carlo methods for the Boltzmann equation. *SIAM Journal on Scientific Computing*, 23(4):1253–1273, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37591>.

Parida:2009:MDT

- [PR09] Nigam Chandra Parida and Soumyendu Raha. The α -method direct transcription in path constrained dynamic optimization. *SIAM Journal on Scientific Computing*, 31(3):2386–2417, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Picklo:2022:EMA

[PR22] Matthew J. Picklo and Jennifer K. Ryan. Enhanced MultiResolution analysis for MultiDimensional data utilizing line filtering techniques. *SIAM Journal on Scientific Computing*, 44(4):A2628–A2650, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M144013X>.

Pollock:2023:FAA

- [PR23] Sara Pollock and Leo G. Rebholz. Filtering for Anderson acceleration. *SIAM Journal on Scientific Computing*, 45(4):A1571–A1590, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1536741>.

Petzold:1997:RHI

- [PRM97] Linda R. Petzold, Yuhe Ren, and Timothy Maly. Regularization of higher-index differential-algebraic equations with rank-deficient constraints. *SIAM Journal on Scientific Computing*, 18(3):753–774, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27604>.

- [PRM09] **Platte:2009:UGI**
 Rodrigo B. Platte, Louis F. Rossi, and Travis B. Mitchell. Using global interpolation to evaluate the Biot–Savart integral for deformable elliptical Gaussian vortex elements. *SIAM Journal on Scientific Computing*, 31(3):2342–2360, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PRR05] **Peters:2005:FIS**
 Jörg Peters, Volker Reichelt, and Arnold Reusken. Fast iterative solvers for discrete Stokes equations. *SIAM Journal on Scientific Computing*, 27(2):646–666, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60602>.
- [PRS12] **Padra:2012:FEM**
 Claudio Padra, Rodolfo Rodríguez, and Mario Scheble. An *hp* finite element method to solve a fluid-solid vibration problem. *SIAM Journal on Scientific Computing*, 34(5):A2533–A2557, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PRSS11] **Preusser:2011:CFE**
 Tobias Preusser, Martin Rumpf, Stefan Sauter, and
- [PS93] **Pothen:1993:MAP**
 Alex Pothen and Chunguang Sun. A mapping algorithm for parallel sparse Cholesky factorization. *SIAM Journal on Scientific Computing*, 14(5):1253–1257, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PS97] **Petzold:1997:DCW**
 Linda R. Petzold and Robert D. Skeel. Dedication to C. William Gear on the occasion of his 60th birthday. *SIAM Journal on Scientific Computing*, 18(1):vii–ix, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PS01] **Potts:2001:PIC**
 Daniel Potts and Gabriele Steidl. Preconditioners for ill-conditioned Toeplitz systems constructed from positive kernels. *SIAM Journal on Scientific Computing*, 22(5):1741–1761, September 2001.
- Lars Ole Schwen. 3D composite finite elements for elliptic boundary value problems with discontinuous coefficients. *SIAM Journal on Scientific Computing*, 33(5):2115–2143, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2115_s1

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35142>.
- [PS02] Christopher C. Paige and Zdenvek Strakos. Residual and backward error bounds in minimum residual Krylov subspace methods. *SIAM Journal on Scientific Computing*, 23(6):1899–1924, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38123>.
- [PS03] Daniel Potts and Gabriele Steidl. Fast summation at nonequispaced knots by NFFT. *SIAM Journal on Scientific Computing*, 24(6):2013–2037, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40098>.
- [PS08] Luca F. Pavarino and Simone Scacchi. Multilevel additive Schwarz preconditioners for the bidomain reaction-diffusion system. *SIAM Journal on Scientific Computing*, 31(1):420–443, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PS10a] Jong Hyuk Park and John C. Strikwerda. The domain decomposition method for Maxwell’s equations in time domain simulations with dispersive metallic media. *SIAM Journal on Scientific Computing*, 32(2):684–702, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PS10b] Jan Pomplun and Frank Schmidt. Accelerated a posteriori error estimation for the reduced basis method with application to 3D electromagnetic scattering problems. *SIAM Journal on Scientific Computing*, 32(2):498–520, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PS11a] L. F. Pavarino and S. Scacchi. Parallel multilevel Schwarz and block preconditioners for the bidomain parabolic-parabolic and parabolic-elliptic formulations. *SIAM Journal on Scientific Computing*, 33(4):1897–1919, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40098>.

- siam.org/sisc/resource/1/sjoc3/v33/i4/p1897_s1 [PS18]
- Pennacchio:2011:FSA**
- [PS11b] Micol Pennacchio and Valeria Simoncini. Fast structured AMG preconditioning for the bidomain model in electrocardiology. *SIAM Journal on Scientific Computing*, 33(2):721–745, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p721_s1.
- Powell:2012:PSS**
- [PS12] Catherine E. Powell and David J. Silvester. Preconditioning steady-state Navier–Stokes equations with random data. *SIAM Journal on Scientific Computing*, 34(5):A2482–A2506, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [PS19b]
- Pearson:2013:FIS**
- [PS13] John W. Pearson and Martin Stoll. Fast iterative solution of reaction-diffusion control problems arising from chemical processes. *SIAM Journal on Scientific Computing*, 35(5):B987–B1009, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [PSA99]
- Palitta:2018:NML**
- Davide Palitta and Valeria Simoncini. Numerical methods for large-scale Lyapunov equations with symmetric banded data. *SIAM Journal on Scientific Computing*, 40(5):A3581–A3608, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Peixoto:2019:SLE**
- [PS19a] Pedro S. Peixoto and Martin Schreiber. Semi-Lagrangian exponential integration with application to the rotating shallow water equations. *SIAM Journal on Scientific Computing*, 41(5):B903–B928, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Polz:2019:STD**
- [PS19b] Dominik Pölz and Martin Schanz. Space-time discretized retarded potential boundary integral operators: Quadrature for collocation methods. *SIAM Journal on Scientific Computing*, 41(6):A3860–A3886, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Perugia:1999:LAM**
- I. Perugia, V. Simoncini, and M. Arioli. Linear algebra methods in a mixed

approximation of magneto-static problems. *SIAM Journal on Scientific Computing*, 21(3):1085–1101, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33321>.

Patterson:2006:LPD

[PSB⁺06]

R. I. A. Patterson, J. Singh, M. Balthasar, M. Kraft, and J. R. Norris. The linear process deferment algorithm: a new technique for solving population balance equations. *SIAM Journal on Scientific Computing*, 28(1):303–320, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61895.html.

Phillips:2016:BPS

[PSC⁺16]

Edward G. Phillips, John N. Shadid, Eric C. Cyr, Howard C. Elman, and Roger P. Pawlowski. Block preconditioners for stable mixed nodal and edge finite element representations of incompressible resistive MHD. *SIAM Journal on Scientific Computing*, 38(6):B1009–B1031, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Phillips:2018:SPS

[PSC18]

Edward G. Phillips, John N. Shadid, and Eric C. Cyr.

Scalable preconditioners for structure preserving discretizations of Maxwell equations in first order form. *SIAM Journal on Scientific Computing*, 40(3):B723–B742, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Perrin:2012:IPC

[PSDF12]

G. Perrin, C. Soize, D. Duhamel, and C. Funfschilling. Identification of polynomial chaos representations in high dimension from a set of realizations. *SIAM Journal on Scientific Computing*, 34(6):A2917–A2945, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Popovici:2020:FFM

Doru Thom Popovici, Martin D. Schatz, Franz Franchetti, and Tze Meng Low. A flexible framework for multidimensional DFTs. *SIAM Journal on Scientific Computing*, 42(5):C245–C264, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pellikka:2013:HCC

[PSKG13]

M. Pellikka, S. Suuriniemi, L. Kettunen, and C. Geuzaine. Homology and cohomology computation in finite element modeling. *SIAM Journal on Scientific Computing*, 35(5):

B1195–B1214, ???? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Petra:2014:AIF

[PSLG14]

Cosmin G. Petra, Olaf Schenk, Miles Lubin, and Klaus Gäertner. An augmented incomplete factorization approach for computing the Schur complement in stochastic optimization. *SIAM Journal on Scientific Computing*, 36(2):C139–C162, ???? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Powell:2017:ERB

[PSS17]

C. E. Powell, D. Silvester, and V. Simoncini. An efficient reduced basis solver for stochastic Galerkin matrix equations. *SIAM Journal on Scientific Computing*, 39(1):A141–A163, ???? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Pinski:2015:AKL

[PSSW15]

F. J. Pinski, G. Simpson, A. M. Stuart, and H. Weber. Algorithms for Kullback–Leibler approximation of probability measures in infinite dimensions. *SIAM Journal on Scientific Computing*, 37(6):A2733–A2757, ???? 2015. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Porcelli:2015:PAS

[PST15]

Margherita Porcelli, Valeria Simoncini, and Mattia Tani. Preconditioning of active-set Newton methods for PDE-constrained optimal control problems. *SIAM Journal on Scientific Computing*, 37(5):S472–S502, ???? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Papakostas:1999:HPL

[PT99]

S. N. Papakostas and Ch. Tsitouras. High phase-lag-order Runge–Kutta and Nyström pairs. *SIAM Journal on Scientific Computing*, 21(2):747–763, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31550>.

Pernice:2001:MPN

[PT01]

M. Pernice and M. D. Tocci. A multigrid-preconditioned Newton–Krylov method for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 23(2):398–418, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37225>.

- [PT08] **Pryce:2008:FAD**
 John D. Pryce and Emmanuel M. Tadjouddine. Fast automatic differentiation Jacobians by compact LU factorization. *SIAM Journal on Scientific Computing*, 30(4):1659–1677, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PTSA23] **Pentland:2023:SPA**
 Kamran Pentland, Massimiliano Tamborrino, Debasmita Samaddar, and Lynton C. Appel. Stochastic parareal: an application of probabilistic methods to time-parallelization. *SIAM Journal on Scientific Computing*, 45(3):S82–S102, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1414231>.
- [PTT20a] **Peng:2020:ADP**
 Zhichao Peng, Qi Tang, and Xian-Zhu Tang. An adaptive discontinuous Petrov–Galerkin method for the Grad–Shafranov equation. *SIAM Journal on Scientific Computing*, 42(5):B1227–B1249, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PTT20b] **Petropavlovsky:2020:NSE**
 Sergey Petropavlovsky, Se-
- [PTvR+14] **Prins:2014:MAS**
 C. R. Prins, J. H. M. Ten Thije Boonkamp, J. van Roosmalen, W. L. Jzerman, and T. W. Tukker. A Monge–Ampère–Solver for free-form reflector design. *SIAM Journal on Scientific Computing*, 36(3):B640–B660, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pul08] **Pulch:2008:VMS**
 Roland Pulch. Variational methods for solving warped multirate partial differential algebraic equations. *SIAM Journal on Scientific Computing*, 31(2):1016–1034, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Pup99] **Puppo:1999:VGM**
 Gabriella Puppo. A vortex-grid method for Prandtl’s equations. *SIAM Journal on Scientific Computing*, 20(4):1229–1251, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- myon V. Tsynkov, and Eli Turkel. Numerical solution of 3D exterior unsteady wave propagation problems using boundary operators. *SIAM Journal on Scientific Computing*, 42(5):A3462–A3488, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29786>. [PV08]
- Puppo:2003:NEP**
- [Pup03] Gabriella Puppo. Numerical entropy production for central schemes. *SIAM Journal on Scientific Computing*, 25(4):1382–1415, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38671>. [PV15]
- Proskurowski:1994:PCM**
- [PV94] Włodek Proskurowski and Panayot S. Vassilevski. Preconditioning capacitance matrix problems in domain imbedding. *SIAM Journal on Scientific Computing*, 15(1):77–88, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [PVC17]
- Proskurowski:1995:PNI**
- [PV95] Włodzimierz Proskurowski and Panayot S. Vassilevski. Preconditioning nonsymmetric and indefinite capacitance matrix problems in domain imbedding. *SIAM Journal on Scientific Computing*, 16(2):414–430, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Pasciak:2008:ERS**
- Joseph E. Pasciak and Panayot S. Vassilevski. Exact de Rham sequences of spaces defined on macro-elements in two and three spatial dimensions. *SIAM Journal on Scientific Computing*, 30(5):2427–2446, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Praetorius:2015:DAB**
- Simon Praetorius and Axel Voigt. Development and analysis of a block-preconditioner for the phase-field crystal equation. *SIAM Journal on Scientific Computing*, 37(3):B425–B451, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Perić:2017:SAU**
- [PVC17] Nikola D. Perić, Mario E. Villanueva, and Benoît Chachuat. Sensitivity analysis of uncertain dynamic systems using set-valued integration. *SIAM Journal on Scientific Computing*, 39(6):A3014–A3039, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Polner:2017:STF**
- [PvdVvG17] Mónica Polner, J. J. W. van der Vegt, and S. A. van Gils. A space-time finite element method for neural field

equations with transmission delays. *SIAM Journal on Scientific Computing*, 39(5): B797–B818, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Perdikaris:2016:MIF

[PVK16]

Paris Perdikaris, Daniele Venturi, and George Em Karniadakis. Multifidelity information fusion algorithms for high-dimensional systems and massive data sets. *SIAM Journal on Scientific Computing*, 38(4):B521–B538, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Perego:2011:VAE

[PVV11]

Mauro Perego, Alessandro Veneziani, and Christian Vergara. A variational approach for estimating the compliance of the cardiovascular tissue: An inverse fluid-structure interaction problem. *SIAM Journal on Scientific Computing*, 33(3):1181–1211, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1181_s1

Pernice:1998:NNI

[PW98]

Michael Pernice and Homer F. Walker. NITSOL: A Newton iterative solver for non-

linear systems. *SIAM Journal on Scientific Computing*, 19(1):302–318, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30384>.

Patterson:2012:SWP

[PW12]

Robert I. A. Patterson and Wolfgang Wagner. A stochastic weighted particle method for Coagulation–Advection problems. *SIAM Journal on Scientific Computing*, 34(3): B290–B311, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Peherstorfer:2015:OAM

[PW15]

Benjamin Peherstorfer and Karen Willcox. Online adaptive model reduction for nonlinear systems via low-rank updates. *SIAM Journal on Scientific Computing*, 37(4): A2123–A2150, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Paganini:2018:HOM

[PWF18]

Alberto Paganini, Florian Wechsung, and Patrick E. Farrell. Higher-order moving mesh methods for PDE-constrained shape optimization. *SIAM Journal on Scientific Computing*, 40(4): A2356–A2382, 2018. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic).
- [PWZ10] **Peherstorfer:2016:OMM**
 Benjamin Peherstorfer, Karen Willcox, and Max Gunzburger. Optimal model management for multifidelity Monte Carlo estimation. *SIAM Journal on Scientific Computing*, 38(5):A3163–A3194, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PWG16] **Popp:2012:DQM**
 A. Popp, B. I. Wohlmuth, M. W. Gee, and W. A. Wall. Dual quadratic mortar finite element methods for 3D finite deformation contact. *SIAM Journal on Scientific Computing*, 34(4):B421–B446, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PXYY16] **Peng:2016:AAF**
 Zhimin Peng, Yangyang Xu, Ming Yan, and Wotao Yin. ARock: an algorithmic framework for asynchronous parallel coordinate updates. *SIAM Journal on Scientific Computing*, 38(5):A2851–A2879, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PYSG13] **Pisciuneri:2013:IPF**
 P. H. Pisciuneri, S. L. Yilmaz, P. A. Strakey, and P. Givi. An irregularly portioned FDF simulator. *SIAM Journal on Scientific Computing*, 35(4):C438–C452, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [PZPR07] **Pavarino:2007:OSM**
 L. F. Pavarino, E. Zampieri, R. Pasquetti, and F. Rapetti.
- [PVG16] **Pavarino:2010:BPS**
 Luca F. Pavarino, Olof B. Widlund, and Stefano Zampini. BDDC preconditioners for spectral element discretizations of almost incompressible elasticity in three dimensions. *SIAM Journal on Scientific Computing*, 32(6):3604–3626, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3604_s1.
- [PWM22] **Pachev:2022:CML**
 Benjamin Pachev, Jared P. Whitehead, and Shane A. McQuarrie. Concurrent MultiParameter learning demonstrated on the Kuramoto–Sivashinsky equation. *SIAM Journal on Scientific Computing*, 44(5):A2974–A2990, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1426109>.

- Overlapping Schwarz methods for Fekete and Gauss–Lobatto spectral elements. *SIAM Journal on Scientific Computing*, 29(3):1073–1092, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [QFW22]
- Peherstorfer:2015:MMA**
 [PZZB15] Benjamin Peherstorfer, Stefan Zimmer, Christoph Zenger, and Hans-Joachim Bungartz. A multigrid method for adaptive sparse grids. *SIAM Journal on Scientific Computing*, 37(5):S51–S70, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Qin:2021:DDL**
 [QCJX21] Tong Qin, Zhen Chen, John D. Jakeman, and Dongbin Xiu. Data-driven learning of nonautonomous systems. *SIAM Journal on Scientific Computing*, 43(3):A1607–A1624, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Quer:2018:AAI**
 [QDKW18] J. Quer, L. Donati, B. G. Keller, and M. Weber. An automatic adaptive importance sampling algorithm for molecular dynamics in reaction coordinates. *SIAM Journal on Scientific Computing*, 40(2):A653–A670, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [QL06]
- Qian:2022:ROI**
 Elizabeth Qian, Ionut-Gabriel Farcas, and Karen Willcox. Reduced operator inference for nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 44(4):A1934–A1959, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1393972>.
- Qian:2017:CTR**
 [QGVW17] Elizabeth Qian, Martin Grepl, Karen Veroy, and Karen Willcox. A certified trust region reduced basis approach to PDE-constrained optimization. *SIAM Journal on Scientific Computing*, 39(5):S434–S460, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Qian:2006:LLS**
 Jianliang Qian and Shingyu Leung. A local level set method for paraxial geometrical optics. *SIAM Journal on Scientific Computing*, 28(1):206–223, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60167.html.

- [QNNZ19] **Quaegelbeur:2019:SES**
 Samuel Quaegelbeur, Sivakumaran Nadarajah, Farshad Navah, and Philip Zwanenburg. Stability of energy stable flux reconstruction for the diffusion problem using compact numerical fluxes. *SIAM Journal on Scientific Computing*, 41(1): A643–A667, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QQSvdG01] **Quintana-Orti:1999:ESR**
 Gregorio Quintana-Ortí, Enrique S. Quintana-Ortí, and Antoine Petitot. Efficient solution of the rank-deficient linear least squares problem. *SIAM Journal on Scientific Computing*, 20(3): 1155–1163, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30483>.
- [QOSB98] **Quintana-Orti:1998:BVQ**
 Gregorio Quintana-Ortí, Xiaobai Sun, and Christian H. Bischof. A BLAS-3 version of the QR factorization with column pivoting. *SIAM Journal on Scientific Computing*, 19(5): 1486–1494, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29673>.
- [QQRV21] **Quintana:2001:NPM**
 Enrique S. Quintana, Gregorio Quintana, Xiaobai Sun, and Robert van de Geijn. A note on parallel matrix inversion. *SIAM Journal on Scientific Computing*, 22(5): 1762–1771, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34567>.
- [QQRV21] **Querales:2021:NAD**
 José Querales, Rodolfo Rodríguez, and Pablo Venegas. Numerical approximation of the displacement formulation of the axisymmetric acoustic vibration problem. *SIAM Journal on Scientific Computing*, 43(3):A1583–A1606, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QS03] **Qiu:2003:FDW**
 Jianxian Qiu and Chi-Wang Shu. Finite difference WENO schemes with Lax–Wendroff-type time discretizations. *SIAM Journal on Scientific Computing*, 24(6):2185–2198, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41250>.

- [QS05a] **Qiu:2005:CTC**
 Jianxian Qiu and Chi-Wang Shu. A comparison of troubled-cell indicators for Runge–Kutta discontinuous Galerkin methods using weighted essentially nonoscillatory limiters. *SIAM Journal on Scientific Computing*, 27(3):995–1013, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_61372.html.
- [QS05b] **Qiu:2005:RKD**
 Jianxian Qiu and Chi-Wang Shu. Runge–Kutta discontinuous Galerkin method using WENO limiters. *SIAM Journal on Scientific Computing*, 26(3):907–929, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42529>.
- [QS08a] **Qian:2008:SPD**
 Haifeng Qian and Sachin S. Sapatnekar. Stochastic preconditioning for diagonally dominant matrices. *SIAM Journal on Scientific Computing*, 30(3):1178–1204, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QS08b] **Qiu:2008:CHO**
 Jing-Mei Qiu and Chi-Wang Shu. Convergence of high order finite volume weighted essentially nonoscillatory scheme and discontinuous Galerkin method for nonconvex conservation laws. *SIAM Journal on Scientific Computing*, 31(1):584–607, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QS14] **Qiao:2014:TPF**
 Zhonghua Qiao and Shuyu Sun. Two-phase fluid simulation using a diffuse interface model with Peng–Robinson equation of state. *SIAM Journal on Scientific Computing*, 36(4):B708–B728, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QS18] **Qin:2018:IPP**
 Tong Qin and Chi-Wang Shu. Implicit positivity-preserving high-order discontinuous Galerkin methods for conservation laws. *SIAM Journal on Scientific Computing*, 40(1):A81–A107, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QSM19] **Quan:2019:DDM**
 Chaoyu Quan, Benjamin Stamm, and Yvon Maday. A domain decomposition method for the Poisson–Boltzmann solvation models. *SIAM Journal on Scientific Computing*, 41(1):A1–A20, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- tific Computing*, 41(2):B320–B350, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QSV06] **Quarteroni:2006:ISD** [QZZ14]
 Alfio Quarteroni, Marzio Sala, and Alberto Valli. An interface-strip domain decomposition preconditioner. *SIAM Journal on Scientific Computing*, 28(2):498–516, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61057.html.
- [QX08] **Qin:2008:OSM**
 Lizhen Qin and Xuejun Xu. Optimized Schwarz methods with Robin transmission conditions for parabolic problems. *SIAM Journal on Scientific Computing*, 31(1):608–623, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [QZT11] **Qiao:2011:ATS** [RAB⁺14]
 Zhonghua Qiao, Zhengru Zhang, and Tao Tang. An adaptive time-stepping strategy for the molecular beam epitaxy models. *SIAM Journal on Scientific Computing*, 33(3):1395–1414, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Qin:2014:FEF**
 Lizhen Qin, Shangyou Zhang, and Zhimin Zhang. Finite element formulation in flat coordinate spaces to solve elliptic problems on general closed Riemannian manifolds. *SIAM Journal on Scientific Computing*, 36(5):A2149–A2165, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Qu:2019:NIE**
 Fenglong Qu, Bo Zhang, and Haiwen Zhang. A novel integral equation for scattering by locally rough surfaces and application to the inverse problem: The Neumann case. *SIAM Journal on Scientific Computing*, 41(6):A3673–A3702, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Rankin:2014:CLC**
 James Rankin, Daniele Avitabile, Javier Baladron, Gregory Faye, and David J. B. Lloyd. Continuation of localized coherent structures in nonlocal neural field equations. *SIAM Journal on Scientific Computing*, 36(1):B70–B93, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [Rad16] **Rademacher:2016:NFB**
 A. Rademacher. NCP function-based dual weighted residual error estimators for Signorini's problem. *SIAM Journal on Scientific Computing*, 38(3):A1743–A1769, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rag95] **Raghavan:1995:DSG**
 Padma Raghavan. Distributed sparse Gaussian elimination and orthogonal factorization. *SIAM Journal on Scientific Computing*, 16(6):1462–1477, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rah96] **Rahola:1996:SDS**
 Jussi Rahola. Solution of dense systems of linear equations in the discrete-dipole approximation. *SIAM Journal on Scientific Computing*, 17(1):78–89, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [Rah00] **Rahola:2000:EVI**
 Jussi Rahola. On the eigenvalues of the volume integral operator of electromagnetic scattering. *SIAM Journal on Scientific Computing*, 21(5):1740–1754, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33896>.
- [Rah13] **Rahman:2013:UQA**
 Sharif Rahman. Uncertainty quantification by alternative decompositions of multivariate functions. *SIAM Journal on Scientific Computing*, 35(6):A3024–A3051, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rak21] **Rakhuba:2021:RAD**
 M. Rakhuba. Robust alternating direction implicit solver in quantized tensor formats for a three-dimensional elliptic PDE. *SIAM Journal on Scientific Computing*, 43(2):A800–A827, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rán93] **Randez:1993:ONI**
 L. Rández. Optimizing the numerical integration of initial value problems in shooting methods for linear boundary value problems. *SIAM Journal on Scientific Computing*, 14(4):860–871, July 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RAT18] **Ruiz-Antolin:2018:NFF**
 Diego Ruiz-Antolín and Alex Townsend. A nonuniform Fast Fourier Transform based on low rank approximation. *SIAM Journal on Scientific Computing*, 40(1):A529–A547, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rav02] **Ravindran:2002:ARO**
 S. S. Ravindran. Adaptive reduced-order controllers for a thermal flow system using proper orthogonal decomposition. *SIAM Journal on Scientific Computing*, 23(6):1925–1943, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37471>.
- [Rav05] **Ravindran:2005:RTC**
 S. S. Ravindran. Real-time computational algorithm for optimal control of an MHD flow system. *SIAM Journal on Scientific Computing*, 26(4):1369–1388, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40053>.
- [RBG23] **Rodriguez:2023:AAD**
 Andrea Carracedo Rodriguez, Linus Balicki, and Serkan
- [RBH06] **Ren:2006:FDO**
 Kui Ren, Guillaume Bal, and Andreas H. Hielscher. Frequency domain optical tomography based on the equation of radiative transfer. *SIAM Journal on Scientific Computing*, 28(4):1463–1489, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RC06] **Rempe:2006:PCA**
 M. J. Rempe and D. L. Chopp. A predictor-corrector algorithm for reaction-diffusion equations associated with neural activity on branched structures. *SIAM Journal on Scientific Computing*, 28(6):2139–2161, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RC23] **Rodriguez:2023:GBA**
 A. Alonso Rodríguez and J. Camaño. A graph-based algorithm for the approximation of the spectrum of the
- Gugercin. The p -AAA algorithm for data-driven modeling of parametric dynamical systems. *SIAM Journal on Scientific Computing*, 45(3):A1332–A1358, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1322698>.

- curl operator. *SIAM Journal on Scientific Computing*, 45(1):A147–A169, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1460557>. [RDB16]
- [RCC18] Lars Ruthotto, Julianne Chung, and Matthias Chung. Optimal experimental design for inverse problems with state constraints. *SIAM Journal on Scientific Computing*, 40(4):B1080–B1100, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RCL018] Ernest K. Ryu, Yongxin Chen, Wuchen Li, and Stanley Osher. Vector and matrix optimal mass transport: Theory, algorithm, and applications. *SIAM Journal on Scientific Computing*, 40(5):A3675–A3698, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RD21] John P. Ryan and Anil Damle. Parallel skeletonization for integral equations in evolving multiply-connected domains. *SIAM Journal on Scientific Computing*, 43(3):A2320–A2351, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RDB16] Matthew J. Reynolds, Alireza Doostan, and Gregory Beylkin. Randomized alternating least squares for canonical tensor decompositions: Application to a PDE with random data. *SIAM Journal on Scientific Computing*, 38(5):A2634–A2664, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RDP08] Oliver Röhrle, John B. Davidson, and Andrew J. Pullan. Bridging scales: a three-dimensional electromechanical finite element model of skeletal muscle. *SIAM Journal on Scientific Computing*, 30(6):2882–2904, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RDW10] Tyrone Rees, H. Sue Dollar, and Andrew J. Wathen. Optimal solvers for PDE-constrained optimization. *SIAM Journal on Scientific Computing*, 32(1):271–298, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [Red99] **Redner:1999:CRU**
 Richard A. Redner. Convergence rates for uniform B-spline density estimators Part I: One dimension. *SIAM Journal on Scientific Computing*, 20(6):1929–1953, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29199>.
- [Reg96] **Reginska:1996:RPD**
 Teresa Regińska. A regularization parameter in discrete ill-posed problems. *SIAM Journal on Scientific Computing*, 17(3):740–749, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25267>.
- [Rei13] **Reich:2013:NET**
 Sebastian Reich. A non-parametric ensemble Transform method for Bayesian inference. *SIAM Journal on Scientific Computing*, 35(4):A2013–A2024, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rei18] **Reis:2018:CIS**
 T. Reis. A conservative interface sharpening lattice Boltzmann model. *SIAM Journal on Scientific Computing*, 40(6):B1495–B1516, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rei20] **Reis:2020:LBD**
 T. Reis. On the lattice Boltzmann deviatoric stress: Analysis, boundary conditions, and optimal relaxation times. *SIAM Journal on Scientific Computing*, 42(2):B397–B424, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rei21] **Reiss:2021:OBM**
 Julius Reiss. Optimization-based modal decomposition for systems with multiple transports. *SIAM Journal on Scientific Computing*, 43(3):A2079–A2101, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ren15] **Renka:2015:SEM**
 Robert J. Renka. A simple and efficient method for modeling constant mean curvature surfaces. *SIAM Journal on Scientific Computing*, 37(4):A2076–A2099, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Reu99] **Reusken:1999:ACR**
 Arnold Reusken. On the approximate cyclic reduction

- preconditioner. *SIAM Journal on Scientific Computing*, 21(2):565–590, March 1999. [RG94]
 CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33165>.
- [RF07] **Rollin:2007:IAG**
 S. Röllin and W. Fichtner. Improving the accuracy of GMRes with deflated restarting. *SIAM Journal on Scientific Computing*, 30(1):232–245, 2007. [RG98]
 CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RF10] **Richter:2010:DDF**
 Ronny Richter and Jörg Frauendiener. Discrete differential forms for $(1 + 1)$ -dimensional cosmological space-times. *SIAM Journal on Scientific Computing*, 32(3):1140–1158, 2010. [RG07]
 CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [rFS12] **Fang:2012:FLP**
 Haw ren Fang and Yousef Saad. A filtered Lanczos procedure for extreme and interior eigenvalue problems. *SIAM Journal on Scientific Computing*, 34(4):A2220–A2246, 2012. [RG09]
 CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Rothberg:1994:EBO**
 Edward Rothberg and Anoop Gupta. An efficient block-oriented approach to parallel sparse Cholesky factorization. *SIAM Journal on Scientific Computing*, 15(6):1413–1439, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Ressel:1998:QSL**
 Klaus J. Ressel and Martin H. Gutknecht. QMR smoothing for Lanczos-type product methods based on three-term recurrences. *SIAM Journal on Scientific Computing*, 19(1):55–73, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30481>.
- Rees:2007:PLS**
 Tim Rees and Chen Greif. A preconditioner for linear systems arising from interior point optimization methods. *SIAM Journal on Scientific Computing*, 29(5):1992–2007, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Restelli:2009:CDG**
 Marco Restelli and Francis X. Giraldo. A conservative discontinuous Galerkin semi-implicit formulation for

- the Navier–Stokes equations in nonhydrostatic mesoscale modeling. *SIAM Journal on Scientific Computing*, 31(3):2231–2257, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [RGG15]
- [RG13] **Ramage:2013:PNM**
Alison Ramage and Eugene C. Gartland, Jr. A preconditioned nullspace method for liquid crystal director modeling. *SIAM Journal on Scientific Computing*, 35(1):B226–B247, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RG20] **Robinson:2020:FTB**
Gregor Robinson and Ian Grooms. A fast tunable blurring algorithm for scattered data. *SIAM Journal on Scientific Computing*, 42(4):A2281–A2299, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [RGOY10]
- [RGG06] **Rodriguez:2006:NND**
Ana Alonso Rodriguez and Luca Gerardo-Giorda. New nonoverlapping domain decomposition methods for the harmonic Maxwell system. *SIAM Journal on Scientific Computing*, 28(1):102–122, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [RH06]
- Rossi:2015:PMC**
Ryan A. Rossi, David F. Gleich, and Assefaw H. Gebremedhin. Parallel maximum clique algorithms with applications to network analysis. *SIAM Journal on Scientific Computing*, 37(5):C589–C616, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60869.html.
- Rodrigo:2010:AMF**
Carmen Rodrigo, Francisco J. Gaspar, Cornelis W. Oosterlee, and Irad Yavneh. Accuracy measures and Fourier analysis for the full multigrid algorithm. *SIAM Journal on Scientific Computing*, 32(5):3108–3129, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Remaki:2006:DMA**
Lakhdar Remaki and Wagdi G. Habashi. 3-D mesh adaptation on multiple weak discontinuities and boundary layers. *SIAM Journal on Scientific Computing*, 28(4):1379–1397, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RH09] **Rodriguez:2009:IMS** Ana Alonso Rodríguez and Rafael Vázquez Hernández. Iterative methods for the saddle-point problem arising from the $\mathbf{H}_C/\mathbf{E}_I$ formulation of the eddy current problem. *SIAM Journal on Scientific Computing*, 31(4):3155–3178, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rim18] **Rim:2018:DSH** Donsub Rim. Dimensional splitting of hyperbolic partial differential equations using the Radon transform. *SIAM Journal on Scientific Computing*, 40(6):A4184–A4207, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RHL+21] **Rana:2021:NBP** Md. Masud Rana, Victoria E. Howle, Katharine Long, Ashley Meek, and William Milestone. A new block preconditioner for implicit Runge–Kutta methods for parabolic PDE problems. *SIAM Journal on Scientific Computing*, 43(5):S475–S495, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RJKLW20] **Rossinelli:2011:MMG** Diego Rossinelli, Babak Hezajialhosseini, Daniele G. Spampinato, and Petros Koumoutsakos. Multicore/multi-GPU accelerated simulations of multiphase compressible flows using wavelet adapted grids. *SIAM Journal on Scientific Computing*, 33(2):512–540, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p512_s1.
- [RKL09] **Rogness:2009:EAC** Marie E. Rogness, Robert C. Kirby, and Anders Logg. Efficient assembly of $H(\text{div})$ and $H(\text{curl})$ conforming finite elements. *SIAM Journal on*
- [RJKLW20] **Roy:2020:CPT** Thomas Roy, Tom B. Jönsthövel, Christopher Lemon, and Andrew J. Wathen. A constrained pressure-temperature residual (CPTR) method for non-isothermal multiphase flow in porous media. *SIAM Journal on Scientific Computing*, 42(4):B1014–B1040, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RJKLW20] **Roberts:2007:GTB** A. J. Roberts and I. G. Kevrekidis. General tooth boundary conditions for equation free modeling. *SIAM Journal on Scientific Computing*, 29(4):1495–1510, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- Scientific Computing*, 31(6): 4130–4151, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RKLM18] N. Rahimi, P. Kerfriden, F. C. Langbein, and R. R. Martin. CAD model simplification error estimation for electrostatics problems. *SIAM Journal on Scientific Computing*, 40(1):B196–B227, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rahimi:2018:CMS] [RKW20] Ernest K. Ryu, Seyoon Ko, and Joong-Ho Won. Splitting with near-circulant linear systems: Applications to total variation CT and PET. *SIAM Journal on Scientific Computing*, 42(1): B185–B206, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rahimi:2020:SNC]
- [Ray:2007:UHO] [RL10] Vineet Rawat and Jin-Fa Lee. Nonoverlapping domain decomposition with second order transmission condition for the time-harmonic Maxwell’s equations. *SIAM Journal on Scientific Computing*, 32(6): 3584–3603, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3584_s1
- [Rahimi:2010:NDD]
- [Rahimi:2013:AGO]
- [Rahimi:2014:SAI] [RL13] Marie E. Rognes and Anders Logg. Automated goal-oriented error control I: Stationary variational problems. *SIAM Journal on Scientific Computing*, 35(3):C173–C193, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rahimi:2014:SAI]
- [RKvdDA14] Farbod Roosta-Khorasani, Kees van den Doel, and Uri Ascher. Stochastic algorithms for inverse problems involving PDEs and many measurements. *SIAM Journal on Scientific Computing*, 36(5): S3–S22, 2014. CO-

- [RL17] **Rangarajan:2017:PRD**
 Ramsharan Rangarajan and Adrian J. Lew. Provably robust directional vertex relaxation for geometric mesh optimization. *SIAM Journal on Scientific Computing*, 39(6):A2438–A2471, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RL18] **Reberol:2018:CDB**
 Maxence Reberol and Bruno Lévy. Computing the distance between two finite element solutions defined on different 3D meshes on a GPU. *SIAM Journal on Scientific Computing*, 40(1):C131–C155, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RLC08] **Rostand:2008:KAD**
 Virgile Rostand, Daniel Y. Le Roux, and Graham Carey. Kernel analysis of the discretized finite difference and finite element shallow-water models. *SIAM Journal on Scientific Computing*, 31(1):531–556, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RLG98] **Restrepo:1998:CSL**
 Juan Mario Restrepo, Gary K. Leaf, and Andreas Griewank. Circumventing storage limitations in variational data assimilation studies. *SIAM Journal on Scientific Computing*, 19(5):1586–1605, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28550>.
- [RLM⁺00] **Ruge:2000:NMS**
 John W. Ruge, Yong Li, Steve McCormick, Achi Brandt, and J. R. Bates. A nonlinear multigrid solver for a semi-Lagrangian potential vorticity-based shallow-water model on the sphere. *SIAM Journal on Scientific Computing*, 21(6):2381–2395, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28484>.
- [RM08a] **Rommès:2008:CTF**
 Joost Rommès and Nelson Martins. Computing transfer function dominant poles of large-scale second-order dynamical systems. *SIAM Journal on Scientific Computing*, 30(4):2137–2157, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RM08b] **Ryland:2008:MPR**
 Brett N. Ryland and Robert I. McLachlan. On multisymplecticity of partitioned Runge–Kutta meth-

- ods. *SIAM Journal on Scientific Computing*, 30(3):1318–1340, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RMB00] **Reissig:2000:DAE**
 Gunther Reissig, Wade S. Martinson, and Paul I. Barton. Differential-algebraic equations of index 1 may have an arbitrarily high structural index. *SIAM Journal on Scientific Computing*, 21(6):1987–1990, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35385>.
- [RMC12] **Renac:2012:TIH**
 Florent Renac, Claude Marmignon, and Frédéric Coquel. Time implicit high-order discontinuous Galerkin method with reduced evaluation cost. *SIAM Journal on Scientific Computing*, 34(1):A370–A394, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA370_s1.
- [RMD08] **Romero:2008:LER**
 Louis A. Romero, Jeff Mason, and David M. Day. The large equal radius conditions and time of arrival geolocation algorithms. *SIAM Journal on Scientific Computing*, 31(1):254–272, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RMR15] **Rabina:2015:ETI**
 Jukka Rabinä, Sanna Mönkölä, and Tuomo Rossi. Efficient time integration of Maxwell’s equations with generalized finite differences. *SIAM Journal on Scientific Computing*, 37(6):B834–B854, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RN95] **Renka:1995:MSS**
 R. J. Renka and J. W. Neuberger. Minimal surfaces and Sobolev gradients. *SIAM Journal on Scientific Computing*, 16(6):1412–1427, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RN14] **Rubensson:2014:IED**
 Emanuel H. Rubensson and Anders M. N. Niklasson. Interior eigenvalues from density matrix expansions in quantum mechanical molecular dynamics. *SIAM Journal on Scientific Computing*, 36(2):B147–B170, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RNR13] **Robey:2013:HBA**
 Rachel N. Robey, David Nicholaeff, and Robert W. Robey. Hash-based algorithms for discretized data. *SIAM Journal on Scientific Computing*, 35(4):C346–C368, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RNR16] **Riesinger:2016:SRO**
 Christoph Riesinger, Tobias Neckel, and Florian Rupp. Solving random ordinary differential equations on GPU clusters using multiple levels of parallelism. *SIAM Journal on Scientific Computing*, 38(4):C372–C402, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RNV17] **Robbe:2017:MIQ**
 Pieterjan Robbe, Dirk Nuyens, and Stefan Vandewalle. A multi-index quasi-Monte Carlo algorithm for lognormal diffusion problems. *SIAM Journal on Scientific Computing*, 39(5):S851–S872, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RNV19] **Robbe:2019:RSM**
 Pieterjan Robbe, Dirk Nuyens, and Stefan Vandewalle. Recycling samples in the multi-grid multilevel (quasi-)Monte Carlo method. *SIAM Journal on Scientific Computing*, 41(5):S37–S60, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RO12] **Ruijter:2012:TDF**
 M. J. Ruijter and C. W. Oosterlee. Two-dimensional Fourier cosine series expansion method for pricing financial options. *SIAM Journal on Scientific Computing*, 34(5):B642–B671, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RO15a] **Rakhuba:2015:FMC**
 M. V. Rakhuba and I. V. Oseledets. Fast multidimensional convolution in low-rank tensor formats via cross approximation. *SIAM Journal on Scientific Computing*, 37(2):A565–A582, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RO15b] **Ruijter:2015:FCM**
 M. J. Ruijter and C. W. Oosterlee. A Fourier cosine method for an efficient computation of solutions to BSDEs. *SIAM Journal on Scientific Computing*, 37(2):A859–A889, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RO18] **Rakhuba:2018:JDM**
 M. V. Rakhuba and I. V. Oseledets. Jacobi–Davidson method on low-rank matrix manifolds. *SIAM Journal on Scientific Computing*, 40(2): A1149–A1170, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Roe98] **Roe:1998:LBS**
 Philip Roe. Linear bicharacteristic schemes without dissipation. *SIAM Journal on Scientific Computing*, 19(5): 1405–1427, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27278>.
- [ROM18] **Reisner:2018:SSM**
 Andrew Reisner, Luke N. Olson, and J. David Moulton. Scaling structured multigrid to 500k+ cores through coarse-grid redistribution. *SIAM Journal on Scientific Computing*, 40(4): C581–C604, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ROO08a] **Rump:2008:AFP a**
 Siegfried M. Rump, Takeshi Ogita, and Shin’ichi Oishi. Accurate floating-point summation. Part I: Faithful rounding. *SIAM Journal on Scientific Computing*, 31(1): 189–224, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ROO08b] **Rump:2008:AFP b**
 Siegfried M. Rump, Takeshi Ogita, and Shin’ichi Oishi. Accurate floating-point summation. Part II: Sign, K -fold faithful and rounding to nearest. *SIAM Journal on Scientific Computing*, 31(2): 1269–1302, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ros96] **Rossi:1996:RCS**
 Louis F. Rossi. Resurrecting core spreading vortex methods: a new scheme that is both deterministic and convergent. *SIAM Journal on Scientific Computing*, 17(2):370–397, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25439>.
- [Ros97] **Rossi:1997:MCE**
 Louis F. Rossi. Merging computational elements in vortex simulations. *SIAM Journal on Scientific Computing*, 18(4):1014–1027, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- /epubs.siam.org/sam-bin/dbq/article/28528.
- [Ros05a] **Rossi:2005:AHO**
 Louis F. Rossi. Achieving high-order convergence rates with deforming basis functions. *SIAM Journal on Scientific Computing*, 26(3):885–906, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42528>.
- [Ros05b] **Rossi:2005:CSL**
 Louis F. Rossi. A comparative study of Lagrangian methods using axisymmetric and deforming blobs. *SIAM Journal on Scientific Computing*, 27(4):1168–1180, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60067.html.
- [Ros06a] **Rossi:2006:EBS**
 Louis F. Rossi. Evaluation of the Biot–Savart integral for deformable elliptical Gaussian vortex elements. *SIAM Journal on Scientific Computing*, 28(4):1509–1532, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ros06b] **Rossmanith:2006:UHR**
 James A. Rossmanith. An unstaggered, high-resolution constrained transport method for magnetohydrodynamic flows. *SIAM Journal on Scientific Computing*, 28(5):1766–1797, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ros15] **Rostami:2015:NAC**
 Minghao W. Rostami. New algorithms for computing the real structured pseudospectral abscissa and the real stability radius of large and sparse matrices. *SIAM Journal on Scientific Computing*, 37(5):S447–S471, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rot96] **Rothberg:1996:PPB**
 Edward Rothberg. Performance of panel and block approaches to sparse Cholesky factorization on the iPSC/860 and Paragon multicomputers. *SIAM Journal on Scientific Computing*, 17(3):699–713, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26715>.
- [RP01] **Raha:2001:CPS**
 Soumyendu Raha and Linda R. Petzold. Constraint partitioning for stability in path-constrained dynamic optimization problems. *SIAM*

Journal on Scientific Computing, 22(6):2051–2074, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37239>.

Raissi:2018:NGP

- [RPK18] Maziar Raissi, Paris Perdikaris, and George Em Karniadakis. Numerical Gaussian processes for time-dependent and nonlinear partial differential equations. *SIAM Journal on Scientific Computing*, 40(1):A172–A198, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [RR98]

Rim:2023:MAT

- [RPM23] Donsub Rim, Benjamin Peherstorfer, and Kyle T. Mandli. Manifold approximations via transported subspaces: Model reduction for transport-dominated problems. *SIAM Journal on Scientific Computing*, 45(1):A170–A199, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1316998>. [RRR03]

Roberts:2022:FTS

- [RPSS22] Steven Roberts, Andrey A. Popov, Arash Sarshar, and Adrian Sandu. A fast time-stepping strategy for dynamical systems equipped with

a surrogate model. *SIAM Journal on Scientific Computing*, 44(3):A1405–A1427, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1386281>.

Recchioni:1998:HBN

Maria Cristina Recchioni and Giovanni Russo. Hamilton-based numerical methods for a fluid-membrane interaction in two and three dimensions. *SIAM Journal on Scientific Computing*, 19(3):861–892, May 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28973>.

Ramachandran:2003:FTD

Prabhu Ramachandran, S. C. Rajan, and M. Ramakrishna. A fast, two-dimensional panel method. *SIAM Journal on Scientific Computing*, 24(6):1864–1878, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37466>.

Ramachandran:2005:FMM

Prabhu Ramachandran, S. C. Rajan, and M. Ramakrishna. A fast multipole method for higher order vortex panels in two dimen-

- sions. *SIAM Journal on Scientific Computing*, 26(5): 1620–1642, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42071>.
- [RS99] Edward Rothberg and Robert Schreiber. Efficient methods for out-of-core sparse Cholesky factorization. *SIAM Journal on Scientific Computing*, 21(1):129–144, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32297>.
- [RS00] Giovanni Russo and Peter Smereka. A level-set method for the evolution of faceted crystals. *SIAM Journal on Scientific Computing*, 21(6): 2073–2095, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35192>.
- [RS02] Marielba Rojas and Danny C. Sorensen. A trust-region approach to the regularization of large-scale discrete forms of ill-posed problems. *SIAM Journal on Scientific Computing*, 23(6): 1843–1861, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37816>.
- [RS03] G. J. Rodin and O. Steinbach. Boundary element preconditioners for problems defined on slender domains. *SIAM Journal on Scientific Computing*, 24(4): 1450–1464, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37206>.
- [RS13] Benjamin Rosenbaum and Volker Schulz. Efficient response surface methods based on generic surrogate models. *SIAM Journal on Scientific Computing*, 35(2):B529–B550, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RS16] Daniel Ruprecht and Robert Speck. Spectral deferred corrections with fast-wave slow-wave splitting. *SIAM Journal on Scientific Computing*, 38(4):A2535–A2557, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rothberg:1999:EMC**Rodin:2003:BEP****Russo:2000:LSM****Rosenbaum:2013:ERS****Rojas:2002:TRA****Ruprecht:2016:SDC**

- [RSA05] **Ryan:2005:EPP** Jennifer Ryan, Chi-Wang Shu, and Harold Atkins. Extension of a post processing technique for the discontinuous Galerkin method for hyperbolic equations with application to an aeroacoustic problem. *SIAM Journal on Scientific Computing*, 26(3):821–843, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42399>.
- [RSD⁺20] **Ranocha:2020:RRK** Hendrik Ranocha, Mohammed Sayyari, Lisandro Dalcin, Matteo Parsani, and David I. Ketcheson. Relaxation Runge–Kutta methods: Fully discrete explicit entropy-stable schemes for the compressible Euler and Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 42(2):A612–A638, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RSG17] **Rudi:2017:WBP** Johann Rudi, Georg Stadler, and Omar Ghattas. Weighted BFBT preconditioner for Stokes flow problems with highly heterogeneous viscosity. *SIAM Journal on Scientific Computing*, 39(5):S272–S297, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RSNNR17] **Rao:2017:RDA** Vishwas Rao, Adrian Sandu, Michael Ng, and Elias D. Nino-Ruiz. Robust data assimilation using L_1 and Huber norms. *SIAM Journal on Scientific Computing*, 39(3):B548–B570, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RSS20] **Roberts:2020:CMI** Steven Roberts, Arash Sarshar, and Adrian Sandu. Coupled multirate infinitesimal GARK schemes for stiff systems with multiple time scales. *SIAM Journal on Scientific Computing*, 42(3):A1609–A1638, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RSSM18] **Reiss:2018:SPO** J. Reiss, P. Schulze, J. Sesterhenn, and V. Mehrmann. The shifted proper orthogonal decomposition: a mode decomposition for multiple transport phenomena. *SIAM Journal on Scientific Computing*, 40(3):A1322–A1344, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RSSZ08] **Ruprecht:2008:TBC**
 Daniel Ruprecht, Achim Schädle, Frank Schmidt, and Lin Zschiedrich. Transparent boundary conditions for time-dependent problems. *SIAM Journal on Scientific Computing*, 30(5):2358–2385, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RST93] **Russell:1993:SNA**
 Robert D. Russell, David M. Sloan, and Manfred R. Trummer. Some numerical aspects of computing inertial manifolds. *SIAM Journal on Scientific Computing*, 14(1):19–43, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RSW10] **Reynolds:2010:OBP**
 Daniel R. Reynolds, Ravi Samtaney, and Carol S. Woodward. Operator-based preconditioning of stiff hyperbolic systems. *SIAM Journal on Scientific Computing*, 32(1):150–170, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RT99] **Rossi:1999:PFD**
 Tuomo Rossi and Jari Toivanen. A parallel fast direct solver for block tridiagonal systems with separable matrices of arbitrary dimension. *SIAM Journal on Scientific Computing*, 20(5):1778–1793, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31701>.
- [RT01] **Rapetti:2001:FPT**
 Francesca Rapetti and Andrea Toselli. A FETI preconditioner for two dimensional edge element approximations of Maxwell’s equations on nonmatching grids. *SIAM Journal on Scientific Computing*, 23(1):92–108, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36699>.
- [RT05] **Rokhlin:2005:FAS**
 Vladimir Rokhlin and Mark Tygert. Fast algorithms for spherical harmonic expansions. *SIAM Journal on Scientific Computing*, 27(6):1903–1928, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_62307.html.
- [RT10] **Raghavan:2010:PHP**
 Padma Raghavan and Keita Teranishi. Parallel hybrid preconditioning: Incomplete factorization with selective sparse approximate inversion.

SIAM Journal on Scientific Computing, 32(3):1323–1345, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Richardson:2011:SFA

[RT11]

Mark Richardson and Lloyd N. Trefethen. A sinc function analogue of Chebfun. *SIAM Journal on Scientific Computing*, 33(5):2519–2535, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2519_s1

Ruthotto:2017:JFJ

[RTH17]

Lars Ruthotto, Eran Treister, and Eldad Haber. jInv — a flexible Julia package for PDE parameter estimation. *SIAM Journal on Scientific Computing*, 39(5):S702–S722, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rupp:2016:VLA

[RTR⁺16]

Karl Rupp, Philippe Tillet, Florian Rudolf, Josef Weinbub, Andreas Morhammer, Tibor Grasser, Ansgar Jüngel, and Siegfried Selberherr. ViennaCL — linear algebra library for multi- and many-core architectures. *SIAM Journal on Scientific Computing*, 38(5):S412–S439, 2016. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Romijn:2021:ILS

[RtTBAI21]

L. B. Romijn, J. H. M. ten Thije Boonkamp, M. J. H. Anthonissen, and W. L. IJzerman. An iterative least-squares method for generated Jacobian equations in freeform optical design. *SIAM Journal on Scientific Computing*, 43(2):B298–B322, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rizwan-Uddin:2001:CNI

[RU01]

Rizwan-Uddin. Comparison of the nodal integral method and nonstandard finite-difference schemes for the Fisher equation. *SIAM Journal on Scientific Computing*, 22(6):1926–1942, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32546>.

Rubensson:2012:CER

[Rub12]

Emanuel H. Rubensson. Controlling errors in recursive Fermi–Dirac operator expansions with applications in electronic structure theory. *SIAM Journal on Scientific Computing*, 34(1):B1–B23, 2012. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pB1_s1. [RV10]
- [Rüd94] U. Rüd. On the multilevel adaptive iterative method. *SIAM Journal on Scientific Computing*, 15(3):577–586, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Also available as TU-Bericht I-9216, and published in the Preliminary Proceedings of the 2nd Copper Mountain Conference on Iterative Methods, April 9–14, 1992, ed. T. Manteuffel, University of Colorado at Denver.
- [Ruh98] Axel Ruhe. Rational Krylov: a practical algorithm for large sparse nonsymmetric matrix pencils. *SIAM Journal on Scientific Computing*, 19(5):1535–1551, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28559>.
- [Rum09] Siegfried M. Rump. Ultimately fast accurate summation. *SIAM Journal on Scientific Computing*, 31(5):3466–3502, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [RW97]
- [Rosseel:2010:ISS] Eveline Rosseel and Stefan Vandewalle. Iterative solvers for the stochastic finite element method. *SIAM Journal on Scientific Computing*, 32(1):372–397, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Romani:2022:CEP] Lucia Romani and Alberto Viscardi. Construction and evaluation of Pythagorean hodograph curves in exponential-polynomial spaces. *SIAM Journal on Scientific Computing*, 44(6):A3515–A3535, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1455711>.
- [Renaut:2017:HIR] Rosemary A. Renaut, Saeed Vatankeh, and Vahid E. Ardestani. Hybrid and iteratively reweighted regularization by unbiased predictive risk and weighted GCV for projected systems. *SIAM Journal on Scientific Computing*, 39(2):B221–B243, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Rosinski:1997:ARE] James M. Rosinski and

- David L. Williamson. The accumulation of rounding errors and port validation for global atmospheric models. *SIAM Journal on Scientific Computing*, 18(2):552–564, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27553>. [RW07]
- Garry Rodrigue and Daniel White. A vector finite element time-domain method for solving Maxwell’s equations on unstructured hexahedral grids. *SIAM Journal on Scientific Computing*, 23(3):683–706, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34382>. [RW01]
- Werner Römisch and Renate Winkler. Stepsize control for mean-square numerical methods for stochastic differential equations with small noise. *SIAM Journal on Scientific Computing*, 28(2):604–625, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60142.html. [RW06]
- Christoph Reisinger and Gabriel Wittum. Efficient hierarchical approximation of high-dimensional option pricing problems. *SIAM Journal on Scientific Computing*, 29(1):440–458, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Reisinger:2007:EHA]
- Tyrone Rees and Andrew J. Wathen. Preconditioning iterative methods for the optimal control of the Stokes equations. *SIAM Journal on Scientific Computing*, 33(5):2903–2926, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2903_s1. [Rees:2011:PIM]
- T. Richter and T. Wick. Optimal control and parameter estimation for stationary fluid-structure interaction problems. *SIAM Journal on Scientific Computing*, 35(5):B1085–B1104, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Richter:2013:OCP]
- Tyrone Rees and Michael Wathen. An element-based preconditioner for mixed finite [RW21]

element problems. *SIAM Journal on Scientific Computing*, 43(5):S884–S907, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rhebergen:2022:PPR

[RW22]

Sander Rhebergen and Garth N. Wells. Preconditioning for a pressure-robust HDG discretization of the Stokes equations. *SIAM Journal on Scientific Computing*, 44(1):A583–A604, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1420964>.

Reichelt:1995:OCS

[RWA95]

Mark W. Reichelt, Jacob K. White, and Jonathan Allen. Optimal convolution SOR acceleration of waveform relaxation with application to parallel simulation of semiconductor devices. *SIAM Journal on Scientific Computing*, 16(5):1137–1158, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rahimi:2019:SIA

[RWDL19]

Yaghoub Rahimi, Chao Wang, Hongbo Dong, and Yifei Lou. A scale-invariant approach for sparse signal recovery. *SIAM Journal on Scientific Computing*, 41(6):A3649–A3672, 2019.

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rhebergen:2014:ABP

[RWKW14]

Sander Rhebergen, Garth N. Wells, Richard F. Katz, and Andrew J. Wathen. Analysis of block preconditioners for models of coupled magma/mantle dynamics. *SIAM Journal on Scientific Computing*, 36(4):A1960–A1977, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rude:2014:NNS

[RWW14]

U. Rude, C. Waluga, and B. Wohlmuth. Nested Newton strategies for energy-corrected finite element methods. *SIAM Journal on Scientific Computing*, 36(4):A1359–A1383, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Rhebergen:2015:TFB

[RWWK15]

Sander Rhebergen, Garth N. Wells, Andrew J. Wathen, and Richard F. Katz. Three-field block preconditioners for models of coupled magma/mantle dynamics. *SIAM Journal on Scientific Computing*, 37(5):A2270–A2294, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [RWX07] **Russell:2007:MMM**
 R. D. Russell, J. F. Williams, and X. Xu. MOVCOL4: a moving mesh code for fourth-order time-dependent partial differential equations. *SIAM Journal on Scientific Computing*, 29(1):197–220, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RX17] **Rebholz:2017:IAA**
 Leo G. Rebholz and Mengying Xiao. Improved accuracy in algebraic splitting methods for Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 39(4):A1489–A1513, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RX18] **Rostami:2018:RLS**
 Minghao W. Rostami and Fei Xue. Robust linear stability analysis and a new method for computing the action of the matrix exponential. *SIAM Journal on Scientific Computing*, 40(5):A3344–A3370, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [RY03] **Rasch:2003:ESS**
 J. Rasch and A. C. H. Yu. Efficient storage scheme for precalculated Wigner $3-j$, $6-j$ and Gaunt coefficients. *SIAM Journal on Scientific Computing*, 25(4):1416–1428, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42293>.
- [RZ03] **Recchioni:2003:UWO**
 Maria Cristina Recchioni and Francesco Zirilli. The use of wavelets in the operator expansion method for time-dependent acoustic obstacle scattering. *SIAM Journal on Scientific Computing*, 25(4):1158–1186, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39301>.
- [RZTB22] **Rohrig-Zollner:2022:PLR**
 Melven Röhrig-Zöllner, Jonas Thies, and Achim Basermann. Performance of the low-rank TT-SVD for large dense tensors on modern MultiCore CPUs. *SIAM Journal on Scientific Computing*, 44(4):C287–C309, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1395545>.
- [RZTK⁺15] **Rohrig-Zollner:2015:IPJ**
 Melven Röhrig-Zöllner, Jonas Thies, Moritz Kreutzer, Andreas Alvermann, Andreas Pieper, Achim Baser-

- mann, Georg Hager, Gerhard Wellein, and Holger Fehske. Increasing the performance of the Jacobi–Davidson method by blocking. *SIAM Journal on Scientific Computing*, 37(6):C697–C722, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Saa96]
- [SA97] Nejjib Smaoui and Dieter Armbruster. Timely communication: Symmetry and the Karhunen–Loève analysis. *SIAM Journal on Scientific Computing*, 18(5):1526–1532, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30969>. [Saa03]
- [SA99] Richard Saurel and Rémi Abgrall. A simple method for compressible multifluid flows. *SIAM Journal on Scientific Computing*, 21(3):1115–1145, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32374>. [Saa05]
- [Saa93] Youcef Saad. A flexible inner-outer preconditioned GMRES algorithm. *SIAM Journal on Scientific Computing*, 14(2):461–469, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Saad:1996:IME**
- Y. Saad. ILUM: a multi-elimination ILU preconditioner for general sparse matrices. *SIAM Journal on Scientific Computing*, 17(4):830–847, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Saad:2003:FEA**
- Yousef Saad. Finding exact and approximate block structures for ILU preconditioning. *SIAM Journal on Scientific Computing*, 24(4):1107–1123, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39339>.
- Saad:2005:MIR**
- Yousef Saad. Multilevel ILU with reorderings for diagonal dominance. *SIAM Journal on Scientific Computing*, 27(3):1032–1057, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_60273.html.
- Smaoui:1997:TCS**
- Saurel:1999:SMC**
- Saad:1993:FIO**

- [SAB14] **Stolk:2014:MMH**
 Christiaan C. Stolk, Mostak Ahmed, and Samir Kumar Bhowmik. A multigrid method for the Helmholtz equation with optimized coarse Grid corrections. *SIAM Journal on Scientific Computing*, 36(6):A2819–A2841, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SAE10] **Strychalski:2010:SBS**
 Wanda Strychalski, David Adalsteinsson, and Timothy C. Elston. Simulating biochemical signaling networks in complex moving geometries. *SIAM Journal on Scientific Computing*, 32(5):3039–3070, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sai20] **Saibaba:2020:RDE**
 Arvind K. Saibaba. Randomized discrete empirical interpolation method for nonlinear model reduction. *SIAM Journal on Scientific Computing*, 42(3):A1582–A1608, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [San10] **Santarelli:2010:FRO**
 Keith R. Santarelli. A framework for reduced order modeling with mixed moment matching and peak error objectives. *SIAM Journal on Scientific Computing*, 32(2):745–773, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sar97] **Sartenaer:1997:ADI**
 A. Sartenaer. Automatic determination of an initial trust region in nonlinear programming. *SIAM Journal on Scientific Computing*, 18(6):1788–1803, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28695>.
- [Sar98] **Sartoris:1998:RMF**
 Guido E. Sartoris. A 3D rectangular mixed finite element method to solve the stationary semiconductor equations. *SIAM Journal on Scientific Computing*, 19(2):387–403, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27509>.
- [SAY03] **Smaoui:2003:ADC**
 Nejib Smaoui and Salem Al-Yakoob. Analyzing the dynamics of cellular flames using Karhunen–Loève decomposition and autoassociative neural networks. *SIAM Journal on Sci-*

- tific Computing*, 24(5):1790–1808, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38620>. [SB10]
- Saye:2015:HOQ**
- [Say15] R. I. Saye. High-order quadrature methods for implicitly defined surfaces and volumes in hyperrectangles. *SIAM Journal on Scientific Computing*, 37(2):A993–A1019, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SB13]
- Sand:1998:JWR**
- [SB98] J. Sand and K. Burrage. A Jacobi waveform relaxation method for ODEs. *SIAM Journal on Scientific Computing*, 20(2):534–552, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30656>. [SB15]
- Singer:2005:BSF**
- [SB05] Adam B. Singer and Paul I. Barton. Bounding the solutions of parameter dependent nonlinear ordinary differential equations. *SIAM Journal on Scientific Computing*, 27(6):2167–2182, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60438.html. [SB10]
- Sampath:2010:PGM**
- Rahul S. Sampath and George Biros. A parallel geometric multigrid method for finite elements on octree meshes. *SIAM Journal on Scientific Computing*, 32(3):1361–1392, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sorensen:2013:LPS**
- Torquil Macdonald Sørensen and Fred Espen Benth. Levy process simulation by stochastic step functions. *SIAM Journal on Scientific Computing*, 35(5):A2207–A2224, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Stoll:2015:LRT**
- Martin Stoll and Tobias Breiten. A low-rank in time approach to PDE-Constrained optimization. *SIAM Journal on Scientific Computing*, 37(1):B1–B29, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Saarinen:1993:ICN**
- [SBC93] S. Saarinen, R. Bramley, and G. Cybenko. Ill-conditioning in neural network training

problems. *SIAM Journal on Scientific Computing*, 14(3): 693–714, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Serino:2019:SAM

[SBM07]

[SBHS19]

Daniel A. Serino, Jeffrey W. Banks, William D. Henshaw, and Donald W. Schwendeman. A stable added-mass partitioned (AMP) algorithm for elastic solids and incompressible flow: Model problem analysis. *SIAM Journal on Scientific Computing*, 41(4):A2464–A2484, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Saibaba:2013:FKS

[SBK13]

Arvind K. Saibaba, Tania Bakhos, and Peter K. Kitani-dis. A flexible Krylov solver for shifted systems with application to oscillatory hydraulic tomography. *SIAM Journal on Scientific Computing*, 35(6):A3001–A3023, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sargsyan:2018:OIP

[SBK18]

Syuzanna Sargsyan, Steven L. Brunton, and J. Nathan Kutz. Online interpolation point refinement for reduced-order models using a genetic algorithm. *SIAM Journal on Scientific Computing*, 40(1):

B283–B304, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sidje:2007:IUM

Roger B. Sidje, Kevin Burrage, and Shev MacNamara. Inexact uniformization method for computing transient distributions of Markov chains. *SIAM Journal on Scientific Computing*, 29(6): 2562–2580, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Strazzullo:2018:MRP

[SBMR18]

Maria Strazzullo, Francesco Ballarin, Renzo Mosetti, and Gianluigi Rozza. Model reduction for parametrized optimal control problems in environmental marine sciences and engineering. *SIAM Journal on Scientific Computing*, 40(4):B1055–B1079, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sonday:2011:EJG

[SBND11]

Benjamin E. Sonday, Robert D. Berry, Habib N. Najm, and Bert J. Debuschere. Eigenvalues of the Jacobian of a galerkin-projected uncertain ODE system. *SIAM Journal on Scientific Computing*, 33(3):1212–1233, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

- (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1212_s1
- Sauer-Budge:2004:CBL**
- [SBP04] A. M. Sauer-Budge and J. Peraire. Computing bounds for linear functionals of exact weak solutions to the advection-diffusion-reaction equation. *SIAM Journal on Scientific Computing*, 26(2):636–652, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42712>.
- Schenk:2006:LSD**
- [SBR06] Olaf Schenk, Matthias Bollhöfer, and Rudolf A. Römer. On large-scale diagonalization techniques for the Anderson model of localization. *SIAM Journal on Scientific Computing*, 28(3):963–983, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_63764.html.
- Schulz:1998:EIN**
- [SBS98] Volker H. Schulz, Hans Georg Bock, and Marc C. Steinbach. Exploiting invariants in the numerical solution of multi-point boundary value problems for DAEs. *SIAM Journal on Scientific Computing*, 19(2):440–467, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26191>.
- Shu:2008:MPM**
- [SBX+08] Shi Shu, Ivo Babuška, Yingxiong Xiao, Jinchao Xu, and Ludmil Zikatanov. Multi-level preconditioning methods for discrete models of lattice block materials. *SIAM Journal on Scientific Computing*, 31(1):687–707, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Spotz:1998:IPP**
- W. F. Spotz and G. F. Carey. Iterative and parallel performance of high-order compact systems. *SIAM Journal on Scientific Computing*, 19(1):1–14, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30379>.
- Song:2002:TOA**
- [SC02] Song-He Song and Mao-Zhang Chen. Third order accurate large-particle finite volume method on unstructured triangular meshes. *SIAM Journal on Scientific Computing*, 23(5):1456–1463, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30379>.

- epubs.siam.org/sam-bin/dbq/article/35310.
- [SC03] **Serra-Capizzano:2003:NAB** S. Serra-Capizzano. A note on antireflective boundary conditions and fast deblurring models. *SIAM Journal on Scientific Computing*, 25(4):1307–1325, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41024>.
- [SCG07] **St-Cyr:2007:OMA** A. St-Cyr, M. J. Gander, and S. J. Thomas. Optimized multiplicative, additive, and restricted additive Schwarz preconditioning. *SIAM Journal on Scientific Computing*, 29(6):2402–2425, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SCC17] **Santos:2017:DTI** Juan E. Santos, Robiel Martínez Corredor, and José M. Carcione. Determination of a transversely isotropic medium equivalent to a fractured fluid-saturated poroelastic medium. A finite element approach. *SIAM Journal on Scientific Computing*, 39(2):B244–B271, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sch93] **Schlick:1993:MCF** Tamar Schlick. Modified Cholesky factorizations for sparse preconditioners. *SIAM Journal on Scientific Computing*, 14(2):424–445, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sch94] **Schmitt:1994:CDF** H. Schmitt. Contour dynamics and the fast multipole method. *SIAM Journal on Scientific Computing*, 15(4):997–1001, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SCDM⁺10] **Sanchez:2010:SCA** P. Barrera Sánchez, J. J. Cortés, F. J. Domínguez-Mota, G. González Flores, and J. G. Tinoco-Ruiz. Smoothness and convex area functionals — revisited. *SIAM Journal on Scientific Computing*, 32(4):1913–1928, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sch96] **Schatzman:1996:ADF** James C. Schatzman. Accuracy of the discrete Fourier transform and the fast Fourier transform. *SIAM Journal on Scientific Computing*, 17(5):1150–1166, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- [Sch98] [//epubs.siam.org/sam-bin/dbq/article/24702](http://epubs.siam.org/sam-bin/dbq/article/24702).
Schaffer:1998:SMM [Sch05]
 Steve Schaffer. A semi-coarsening multigrid method for elliptic partial differential equations with highly discontinuous and anisotropic coefficients. *SIAM Journal on Scientific Computing*, 20(1):228–242, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28158>. [Sch09]
- [Sch02] **Scheichl:2002:DTD**
 Robert Scheichl. Decoupling three-dimensional mixed problems using divergence-free finite elements. *SIAM Journal on Scientific Computing*, 23(5):1752–1776, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37588>. [Sch10]
- [Sch03] **Schmidt:2003:PEE**
 Jens Georg Schmidt. An *A Posteriori* error estimator for the FEM in nonlinear elastostatics. *SIAM Journal on Scientific Computing*, 24(6):2038–2057, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38423>. [Sch13]
- Schaffer:2005:SAD**
 Andrei Schaffer. Stability of the adjoint differential-algebraic equation of the index-3 multibody system equation of motion. *SIAM Journal on Scientific Computing*, 26(4):1432–1448, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60198>.
- Schweitzer:2009:ATE**
 Marc Alexander Schweitzer. An algebraic treatment of essential boundary conditions in the particle-partition of unity method. *SIAM Journal on Scientific Computing*, 31(2):1581–1602, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Schaeffer:2010:SUG**
 Satu Elisa Schaeffer. Scalable uniform graph sampling by local computation. *SIAM Journal on Scientific Computing*, 32(5):2937–2963, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Schweitzer:2013:VML**
 Marc Alexander Schweitzer. Variational mass lumping in the partition of unity method. *SIAM Journal on Scientific Computing*, 35(2):

- A1073–A1097, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Sco17]
- Schmidt:2018:WSF**
- [Sch18] Stephan Schmidt. Weak and strong form shape Hessians and their automatic generation. *SIAM Journal on Scientific Computing*, 40(2):C210–C233, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Schmitzer:2019:SSS** [SCS04]
- [Sch19] Bernhard Schmitzer. Stabilized sparse scaling algorithms for entropy regularized transport problems. *SIAM Journal on Scientific Computing*, 41(3):A1443–A1481, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sharma:2010:NIS**
- [SCM10] Prateek Sharma, Phillip Colella, and Daniel F. Martin. Numerical implementation of streaming down the gradient: Application to fluid modeling of cosmic rays and saturated conduction. *SIAM Journal on Scientific Computing*, 32(6):3564–3583, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3564_s1
- Scott:2017:UCB**
- Jennifer Scott. On using Cholesky-based factorizations and regularization for solving rank-deficient sparse linear least-squares problems. *SIAM Journal on Scientific Computing*, 39(4):C319–C339, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Subbey:2004:IUC**
- Sam Subbey, Mike Christie, and Malcolm Sambridge. The impact of uncertain centrifuge capillary pressure on reservoir simulation. *SIAM Journal on Scientific Computing*, 26(2):537–557, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42674>.
- Serra-Capizzano:2004:MMM**
- [SCTP04] Stefano Serra-Capizzano and Cristina Tablino-Possio. Multigrid methods for multilevel circulant matrices. *SIAM Journal on Scientific Computing*, 26(1):55–85, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38850>.

- [SCW⁺17] **Spantini:2017:GOO** Alessio Spantini, Tiangang Cui, Karen Willcox, Luis Tenorio, and Youssef Marzouk. Goal-oriented optimal approximations of Bayesian linear inverse problems. *SIAM Journal on Scientific Computing*, 39(5):S167–S196, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SD11] **Suhov:2011:ABC** Alexander Y. Suhov and Adi Ditkowski. Artificial boundary conditions for the simulation of the heat equation in an infinite domain. *SIAM Journal on Scientific Computing*, 33(4):1765–1784, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1765_s1.
- [SCW23] **Sharon:2023:MQI** Nir Sharon, Rafael Sherbu Cohen, and Holger Wendland. On multiscale quasi-interpolation of scattered scalar- and manifold-valued functions. *SIAM Journal on Scientific Computing*, 45(5):A2458–A2482, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1528306>.
- [SDH21] **Stauffert:2021:SSA** Maxime Stauffert and Régis Duvigneau. Shape sensitivity analysis in aerodynamics using an isogeometric discontinuous Galerkin method. *SIAM Journal on Scientific Computing*, 43(5):B1081–B1104, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SD10] **Soize:2010:CAC** C. Soize and C. Desceliers. Computational aspects for constructing realizations of polynomial chaos in high dimension. *SIAM Journal on Scientific Computing*, 32(5):2820–2831, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SDNC20] **Solomonik:2021:CLB** Edgar Solomonik, James Demmel, and Torsten Hoefler. Communication lower bounds of bilinear algorithms for symmetric tensor contractions. *SIAM Journal on Scientific Computing*, 43(5):A3328–A3356, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SDNC20] **Singer:2020:LME** Sanja Singer, Edoardo Di Napoli, Vedran Novaković,

and Gayatri Caklović. The LAPW method with eigen-decomposition based on the Hari–Zimmermann generalized hyperbolic SVD. *SIAM Journal on Scientific Computing*, 42(5):C265–C293, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sargsyan:2010:SRR

[SDNL10]

Khachik Sargsyan, Bert Debuschere, Habib Najm, and Olivier Le Maître. Spectral representation and reduced order modeling of the dynamics of stochastic reaction networks via adaptive data partitioning. *SIAM Journal on Scientific Computing*, 31(6):4395–4421, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[SE16]

Shakourifar:2011:RAS

[SE11]

M. Shakourifar and W. H. Enright. Reliable approximate solution of systems of Volterra integro-differential equations with time-dependent delays. *SIAM Journal on Scientific Computing*, 33(3):1134–1158, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1134_s1

[Sei95]

[Sei23]

Shakourifar:2013:CRT

[SE13]

M. Shakourifar and W. H.

Enright. The cost/reliability trade-off in verifying approximate solutions to differential equations with distributed delays. *SIAM Journal on Scientific Computing*, 35(2):A1011–A1023, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sorensen:2016:DIC

D. C. Sorensen and Mark Embree. A DEIM induced CUR factorization. *SIAM Journal on Scientific Computing*, 38(3):A1454–A1482, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sei:1995:FNS

Alain Sei. A family of numerical schemes for the computation of elastic waves. *SIAM Journal on Scientific Computing*, 16(4):898–916, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Seibel:2023:ACA

Daniel Seibel. Almost complete analytical integration in Galerkin boundary element methods. *SIAM Journal on Scientific Computing*, 45(4):A2075–A2100, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1534857>.

- [Sem10] **Semplice:2010:PIS**
 Matteo Semplice. Preconditioned implicit solvers for nonlinear PDEs in monument conservation. *SIAM Journal on Scientific Computing*, 32(5):3071–3091, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ser06] **Serna:2006:CEL**
 Susana Serna. A class of extended limiters applied to piecewise hyperbolic methods. *SIAM Journal on Scientific Computing*, 28(1):123–140, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61181.html.
- [SF99] **Sussman:1999:EIP**
 Mark Sussman and Emad Fatemi. An efficient, interface-preserving level set redistancing algorithm and its application to interfacial incompressible fluid flow. *SIAM Journal on Scientific Computing*, 20(4):1165–1191, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29824>.
- [SF08] **Stiller:2008:FTN**
 Jörg Stiller and Uwe Fladrich. Factorization techniques for nodal spectral elements in curved domains. *SIAM Journal on Scientific Computing*, 30(5):2286–2301, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SFM20] **Syed:2020:BPT**
 H. Bin Zubair Syed, C. Farquharson, and S. MacLachlan. Block preconditioning techniques for geophysical electromagnetics. *SIAM Journal on Scientific Computing*, 42(3):B696–B721, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SG95] **Simoncini:1995:IMN**
 V. Simoncini and E. Gallopoulos. An iterative method for nonsymmetric systems with multiple right-hand sides. *SIAM Journal on Scientific Computing*, 16(4):917–933, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SG04] **Soize:2004:PSR**
 Christian Soize and Roger Ghanem. Physical systems with random uncertainties: Chaos representations with arbitrary probability measure. *SIAM Journal on Scientific Computing*, 26(2):395–410, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

- [/epubs.siam.org/sam-bin/dbq/article/42450](http://epubs.siam.org/sam-bin/dbq/article/42450). [SH14]
- [SG11] **Scheben:2011:IMN**
Fynn Scheben and Ivan G. Graham. Iterative methods for neutron transport eigenvalue problems. *SIAM Journal on Scientific Computing*, 33(5):2785–2804, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2785_s1 [SH20]
- [SGS22] **Schmidt:2022:SNS**
Stephan Schmidt, Melanie Gräßer, and Hans-Joachim Schmid. A shape Newton scheme for deforming shells with application to capillary bridges. *SIAM Journal on Scientific Computing*, 44(4):B1175–B1194, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1389054>. [Sha99]
- [SH01] **Skeel:2001:PCM**
Robert D. Skeel and David J. Hardy. Practical construction of modified Hamiltonians. *SIAM Journal on Scientific Computing*, 23(4):1172–1188, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38318>. [Sha03]
- Sorensen:2014:MPB**
Hans Henrik B. Sørensen and Per Christian Hansen. Multicore performance of block algebraic iterative reconstruction methods. *SIAM Journal on Scientific Computing*, 36(5):C524–C546, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sun:2020:LMD**
Zheng Sun and Cory D. Hauck. Low-memory, discrete ordinates, discontinuous Galerkin methods for radiative transport. *SIAM Journal on Scientific Computing*, 42(4):B869–B893, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shapira:1999:MLR**
Yair Shapira. Multigrid for locally refined meshes. *SIAM Journal on Scientific Computing*, 21(3):1168–1190, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31656>.
- Shardlow:2003:SDP**
Tony Shardlow. Splitting for dissipative particle dynamics. *SIAM Journal on Scientific Computing*, 24(4):1267–1282, July 2003.

- CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39287>. [She94]
- Shapeev:2012:CEB**
- [Sha12] Alexander V. Shapeev. Consistent energy-based atomistic/continuum coupling for two-body potentials in three dimensions. *SIAM Journal on Scientific Computing*, 34(3):B335–B360, 2012. [She95] CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shahbazi:2021:PPF**
- [Sha21a] Khosro Shahbazi. Positivity preservation of a first-order scheme for a quasi-conservative compressible two-material model. *SIAM Journal on Scientific Computing*, 43(4):B1029–B1055, 2021. [She97] CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shang:2021:AES**
- [Sha21b] Xiaocheng Shang. Accurate and efficient splitting methods for dissipative particle dynamics. *SIAM Journal on Scientific Computing*, 43(3):A1929–A1949, 2021. [She99] CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shen:1994:ESG**
- Jie Shen. Efficient spectral-Galerkin method. I. direct solvers of second- and fourth-order equations using Legendre polynomials. *SIAM Journal on Scientific Computing*, 15(6):1489–1505, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shen:1995:ESG**
- Jie Shen. Efficient spectral-Galerkin method. II. direct solvers of second- and fourth-order equations using Chebyshev polynomials. *SIAM Journal on Scientific Computing*, 16(1):74–87, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shen:1997:ESG**
- Jie Shen. Efficient spectral-Galerkin methods. III. Polar and cylindrical geometries. *SIAM Journal on Scientific Computing*, 18(6):1583–1604, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29530>.
- Shen:1999:ESG**
- Jie Shen. Efficient spectral-Galerkin methods IV. spherical geometries. *SIAM Journal on Scientific Computing*,

- 20(4):1438–1455, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31702>. [SIS96]
- [SHP07] Radu Serban, Chris Home-
scu, and Linda R. Petzold. The effect of problem perturbations on nonlinear dynamical systems and their reduced-order models. *SIAM Journal on Scientific Computing*, 29(6):2621–2643, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SIDR15] J. Sastre, J. Ibánñez, E. De-
fez, and P. Ruiz. New scaling-
squaring Taylor algorithms
for computing the matrix ex-
ponential. *SIAM Journal on
Scientific Computing*, 37(1):
A439–A455, ??? 2015. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic).
- [Sim07] V. Simoncini. A new iterative
method for solving large-scale
Lyapunov matrix equations. *SIAM Journal on Scientific
Computing*, 29(3):1268–1288,
??? 2007. CODEN SJOCE3.
ISSN 1064-8275 (print), 1095-
7197 (electronic).
- [SJD14] Jean-Piero Suarez, Gus-
taaf B. Jacobs, and Wai-Sun
Don. A high-order Dirac-
delta regularization with op-
timal scaling in the spectral
solution of one-dimensional
singular hyperbolic conserva-
tion laws. *SIAM Journal on
Scientific Computing*, 36(4):
A1831–A1849, ??? 2014.
CODEN SJOCE3. ISSN
1064-8275 (print), 1095-7197
(electronic).
- [SJR09] Amel Sboui, Jérôme Jaffré,
and Jean Roberts. A com-
posite mixed finite element
for hexahedral grids. *SIAM
Journal on Scientific Com-
puting*, 31(4):2623–2645, ???
2009. CODEN SJOCE3.
ISSN 1064-8275 (print), 1095-
7197 (electronic).
- Shapira:1996:TAM**
- Yair Shapira, Moshe Israeli,
and Avram Sidi. Towards
automatic multigrid algo-
rithms for SPD, nonsym-
metric and indefinite prob-
lems. *SIAM Journal on
Scientific Computing*, 17(2):
439–453, March 1996. CO-
DEN SJOCE3. ISSN 1064-
8275 (print), 1095-7197 (elec-
tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25883>.
- Serban:2007:EPP**
- Sastre:2015:NSS**
- Simoncini:2007:NIM**
- Sboui:2009:CMF**
- Suarez:2014:HOD**

- [SK05] **Smyrlis:2005:MFS**
 Yiorgos-Sokratis Smyrlis and Andreas Karageorghis. The method of fundamental solutions for stationary heat conduction problems in rotationally symmetric domains. *SIAM Journal on Scientific Computing*, 27(4):1493–1512, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61521.html.
- [SK19] **Slak:2019:GND**
 Jure Slak and Gregor Kosec. On generation of node distributions for meshless PDE discretizations. *SIAM Journal on Scientific Computing*, 41(5):A3202–A3229, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SK23] **Song:2023:DFB**
 Chenxiao Song and Reiichiro Kawai. Dynamic finite-budget allocation of stratified sampling with adaptive variance reduction by strata. *SIAM Journal on Scientific Computing*, 45(2):A898–A932, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430996>.
- [Ske00] **Skelboe:2000:ADI**
 Stig Skelboe. Accuracy of de-
- [Ske09] **Skeel:2009:WMM**
 Robert D. Skeel. What makes molecular dynamics work? *SIAM Journal on Scientific Computing*, 31(2):1363–1378, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SKF18] **Shankar:2018:RNG**
 Varun Shankar, Robert M. Kirby, and Aaron L. Fogelson. Robust node generation for mesh-free discretizations on irregular domains and surfaces. *SIAM Journal on Scientific Computing*, 40(4):A2584–A2608, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SKJ⁺13] **Song:2013:ABE**
 Yizhuang Song, Hyeuknam Kwon, Kiwan Jeon, Yoon Mo Jung, Jin Keun Seo, and Eung Je Woo. Analysis and blocking of error propagation by region-dependent noisy data in MREIT. *SIAM Journal on Scientific Computing*, 35(4):B912–B924, ??? 2013. CODEN SJOCE3. ISSN
- coupled implicit integration formulas. *SIAM Journal on Scientific Computing*, 21(6):2206–2224, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33791>.

1064-8275 (print), 1095-7197 (electronic).

Saibaba:2015:FAH

[SKMF15]

Arvind K. Saibaba, Misha Kilmer, Eric L. Miller, and Sergio Fantini. Fast algorithms for hyperspectral diffuse optical tomography. *SIAM Journal on Scientific Computing*, 37(5):B712–B743, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Smirnov:2019:ISP

[SKN19]

Alexey V. Smirnov, Michael V. Klibanov, and Loc H. Nguyen. On an inverse source problem for the full radiative transfer equation with incomplete data. *SIAM Journal on Scientific Computing*, 41(5):B929–B952, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Schafer:2021:SCF

[SKO21]

Florian Schäfer, Matthias Katzfuss, and Houman Owhadi. Sparse Cholesky factorization by Kullback–Leibler minimization. *SIAM Journal on Scientific Computing*, 43(3):A2019–A2046, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[SKP22]

Southworth:2022:FSFb

Ben S. Southworth, Oliver Krzysik, and Will Pazner. Fast solution of fully implicit Runge–Kutta and discontinuous Galerkin in time for numerical PDEs, part II: Nonlinearities and DAEs. *SIAM Journal on Scientific Computing*, 44(2):A636–A663, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1390438>.

Southworth:2022:FSFa

[SKPD22]

Ben S. Southworth, Oliver Krzysik, Will Pazner, and Hans De Sterck. Fast solution of fully implicit Runge–Kutta and discontinuous Galerkin in time for numerical PDEs, part i: the linear setting. *SIAM Journal on Scientific Computing*, 44(1):A416–A443, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1389742>.

Schoeder:2018:EET

[SKWK18]

S. Schoeder, K. Kormann, W. A. Wall, and M. Kronbichler. Efficient explicit time stepping of high order discontinuous Galerkin schemes for waves. *SIAM Journal on Scientific Computing*, 40(6):C803–C826, 2018. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shapeev:2009:AFF

[SL09a]

Alexander V. Shapeev and Ping Lin. An asymptotic fitting finite element method with exponential mesh refinement for accurate computation of corner eddies in viscous flows. *SIAM Journal on Scientific Computing*, 31(3):1874–1900, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sun:2009:LCF

[SL09b]

Shuyu Sun and Jiangguo Liu. A locally conservative finite element method based on piecewise constant enrichment of the continuous Galerkin method. *SIAM Journal on Scientific Computing*, 31(4):2528–2548, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Savas:2010:QNM

[SL10]

Berkant Savas and Lek-Heng Lim. Quasi-Newton methods on Grassmannians and multilinear approximations of tensors. *SIAM Journal on Scientific Computing*, 32(6):3352–3393, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v32/i6/p3352_s1

[siam.org/sisc/resource/1/sjoce3/v32/i6/p3352_s1](http://epubs.siam.org/sisc/resource/1/sjoce3/v32/i6/p3352_s1)

Saran:2011:AES

[SL11]

Haseena Saran and Hailiang Liu. Alternating evolution schemes for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 33(6):3210–3240, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i6/p3210_s1

Seol:2020:SA

[SL20]

Yunchang Seol and Ming-Chih Lai. Spectrally accurate algorithm for points redistribution on closed curves. *SIAM Journal on Scientific Computing*, 42(5):A3030–A3054, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sun:2022:KBM

[SL22]

Zhengjie Sun and Leevan Ling. A kernel-based meshless conservative Galerkin method for solving Hamiltonian wave equations. *SIAM Journal on Scientific Computing*, 44(4):A2789–A2807, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1436981>

- [SLC01] **Sun:2001:CNO** Din-Kow Sun, Jin-Fa Lee, and Zoltan Cendes. Construction of nearly orthogonal Nedelec bases for rapid convergence with multi-level preconditioned solvers. *SIAM Journal on Scientific Computing*, 23(4):1053–1076, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36753>.
- [SLO13] **Stathopoulos:2013:HPE** Andreas Stathopoulos, Jesse Laeuchli, and Kostas Orginos. Hierarchical probing for estimating the trace of the matrix inverse on toroidal lattices. *SIAM Journal on Scientific Computing*, 35(5):S299–S322, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SLFL06] **Schadle:2006:FOC** Achim Schädle, María López-Fernández, and Christian Lubich. Fast and oblivious convolution quadrature. *SIAM Journal on Scientific Computing*, 28(2):421–438, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62313.html.
- [SLvdGK14] **Schatz:2014:EST** Martin D. Schatz, Tze Meng Low, Robert A. van de Geijn, and Tamara G. Kolda. Exploiting symmetry in tensors for high performance: Multiplication with symmetric tensors. *SIAM Journal on Scientific Computing*, 36(5):C453–C479, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Slo02] **Slodicka:2002:REL** Marián Slodicka. A robust and efficient linearization scheme for doubly nonlinear and degenerate parabolic problems arising in flow in porous media. *SIAM Journal on Scientific Computing*, 23(5):1593–1614, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-23/art_1593.html.
- [SM94] **Sherman:1994:GRW** Arthur Sherman and Michael Mascagni. A gradient random walk method for two-dimensional reaction-diffusion equations. *SIAM Journal on Scientific Computing*, 15(6):1280–1293, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [SM07] **Stathopoulos:2007:NOPb**
 Andreas Stathopoulos and James R. McCombs. Nearly optimal preconditioned methods for Hermitian eigenproblems under limited memory. Part II: Seeking many eigenvalues. *SIAM Journal on Scientific Computing*, 29(5):2162–2188, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SM15] **Stavropoulou:2015:PRV**
 Faidra Stavropoulou and Johannes Müller. Parametrization of random vectors in polynomial chaos expansions via optimal transportation. *SIAM Journal on Scientific Computing*, 37(6):A2535–A2557, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SM17] **Scheufele:2017:RMQ**
 Klaudius Scheufele and Miriam Mehl. Robust multisecond quasi-Newton variants for parallel fluid-structure simulations — and other multiphysics applications. *SIAM Journal on Scientific Computing*, 39(5):S404–S433, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SM18] **Sifuentes:2018:PMT**
 Josef A. Sifuentes and Shari Moskow. Preconditioning methods for thin scattering structures based on asymptotic results. *SIAM Journal on Scientific Computing*, 40(4):B1007–B1019, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SM19] **Scott:2019:MAN**
 C. B. Scott and Eric Mjølness. Multilevel artificial neural network training for spatially correlated learning. *SIAM Journal on Scientific Computing*, 41(5):S297–S320, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sma01] **Smaoui:2001:MUM**
 Nejib Smaoui. A model for the unstable manifold of the bursting behavior in the 2D Navier–Stokes flow. *SIAM Journal on Scientific Computing*, 23(3):824–839, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35501>.
- [Sma04] **Smaoui:2004:LVN**
 Nejib Smaoui. Linear versus nonlinear dimensionality reduction of high-dimensional dynamical systems. *SIAM Journal on Scientific Computing*, 25(6):2107–2125, November 2004. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41272>. [SMR01]
- [Smi93] **Smith:1993:PII**
Barry F. Smith. A parallel implementation of an iterative substructuring algorithm for problems in three dimensions. *SIAM Journal on Scientific Computing*, 14(2):406–423, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Smi97] **Smith:1997:GML**
Ralph C. Smith. A Galerkin method for linear PDE systems in circular geometries with structural acoustic applications. *SIAM Journal on Scientific Computing*, 18(2):371–402, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26853>. [SMR16]
- [SMN10] **Steiner:2010:ATC**
Christina Steiner, Siegfried Müller, and Sebastian Noelle. Adaptive timestep control for nonstationary solutions of the Euler equations. *SIAM Journal on Scientific Computing*, 32(3):1617–1651, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Stockie:2001:MMM**
John M. Stockie, John A. Mackenzie, and Robert D. Russell. A moving mesh method for one-dimensional hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 22(5):1791–1813, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36442>.
- Slota:2016:CNP**
George M. Slota, Kamesh Madduri, and Sivasankaran Rajamanickam. Complex network partitioning using label propagation. *SIAM Journal on Scientific Computing*, 38(5):S620–S645, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SMYS21] **Singh:2021:CAS**
Navjot Singh, Linjian Ma, Hongru Yang, and Edgar Solomonik. Comparison of accuracy and scalability of Gauss–Newton and alternating least squares for CANDECOM/PARAFAC decomposition. *SIAM Journal on Scientific Computing*, 43(4):C290–C311, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [SMZ18] **Safin:2018:PFE**
 Artur Safin, Susan Minkoff, and John Zweck. A preconditioned finite element solution of the coupled pressure-temperature equations used to model trace gas sensors. *SIAM Journal on Scientific Computing*, 40(5):B1470–B1493, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SO09]
- [SNB08] **Stals:2008:SAT**
 L. Stals, R. Numata, and R. Ball. Stability analysis of time stepping for prolonged plasma fluid simulations. *SIAM Journal on Scientific Computing*, 31(2):961–986, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SO10]
- [SNB16] **Schreiber:2016:EES**
 Martin Schreiber, Tobias Neckel, and Hans-Joachim Bungartz. Evaluation of an efficient stack-RLE clustering concept for dynamically adaptive grids. *SIAM Journal on Scientific Computing*, 38(6):C678–C712, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SO15]
- [SO97] **Stotland:1997:OPC**
 S. A. Stotland and J. M. Ortega. Orderings for parallel conjugate gradient preconditioners. *SIAM Journal on Scientific Computing*, 18(3):854–868, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25624>. [SO09]
- Sussman:2009:SEM**
 Mark Sussman and Mitsuhiro Ohta. A stable and efficient method for treating surface tension in incompressible two-phase flow. *SIAM Journal on Scientific Computing*, 31(4):2447–2471, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SO10]
- Stathopoulos:2010:CDE**
 Andreas Stathopoulos and Konstantinos Orginos. Computing and deflating eigenvalues while solving multiple right-hand side linear systems with an application to quantum chromodynamics. *SIAM Journal on Scientific Computing*, 32(1):439–462, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SO15]
- Slevinsky:2015:UCM**
 Richard Mikael Slevinsky and Sheehan Olver. On the use of conformal maps for the acceleration of convergence of the trapezoidal rule and sinc numerical meth-

- ods. *SIAM Journal on Scientific Computing*, 37(2):A676–A700, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SO18] **Sushnikova:2018:CES**
Daria A. Sushnikova and Ivan V. Oseledets. “Compress and eliminate” solver for symmetric positive definite sparse matrices. *SIAM Journal on Scientific Computing*, 40(3):A1742–A1762, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SP02] **Simoncini:2002:NSA**
V. Simoncini and F. Perotti. On the numerical solution of $(\lambda^2 A + \lambda B + C)x = b$ and application to structural dynamics. *SIAM Journal on Scientific Computing*, 23(6):1876–1898, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38337>.
- [Son12] **Sonneveld:2012:CBI**
Peter Sonneveld. On the convergence behavior of $\text{IDR}(s)$ and related methods. *SIAM Journal on Scientific Computing*, 34(5):A2576–A2598, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SP03] **Soodhalter:2016:BKS**
Kirk M. Soodhalter. Block Krylov subspace recycling for shifted systems with unrelated right-hand sides. *SIAM Journal on Scientific Computing*, 38(1):A302–A324, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Soo16] **Soodhalter:2016:BKS**
Kirk M. Soodhalter. Block Krylov subspace recycling for shifted systems with unrelated right-hand sides. *SIAM Journal on Scientific Computing*, 38(1):A302–A324, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SOTB21] **Seboldt:2021:NMF**
Anyastassia Seboldt, Oyekola Oyekole, Josip Tambaca, and Martina Bukac. Numerical modeling of the fluid-porohyperelastic structure interaction. *SIAM Journal on Scientific Computing*, 43(4):A2923–A2948, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SP16] **Smetana:2016:OLA**
Kathrin Smetana and Anthony T. Patera. Optimal local approximation spaces for component-based static con-

- densation procedures. *SIAM Journal on Scientific Computing*, 38(5):A3318–A3356, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SQO02]
- [Spi16] Nicole Spillane. An adaptive MultiPreconditioned conjugate gradient algorithm. *SIAM Journal on Scientific Computing*, 38(3):A1896–A1918, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SPKB13] A. Schmidt, A. Potschka, S. Körkel, and H. G. Bock. Derivative-extended POD reduced-order modeling for parameter estimation. *SIAM Journal on Scientific Computing*, 35(6):A2696–A2717, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SPS18] Johannes Semmler, Lukas Pflug, and Michael Stingl. Material optimization in transverse electromagnetic scattering applications. *SIAM Journal on Scientific Computing*, 40(1):B85–B109, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SR16]
- [Sun:2002:GNI] Xiaobai Sun and Enrique S. Quintana-Ortí. The generalized Newton iteration for the matrix sign function. *SIAM Journal on Scientific Computing*, 24(2):669–683, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34869>.
- [Shampine:1997:MOS] Lawrence F. Shampine and Mark W. Reichelt. The MATLAB ODE suite. *SIAM Journal on Scientific Computing*, 18(1):1–22, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27642>. Dedicated to C. William Gear on the occasion of his 60th birthday.
- [Schornbaum:2016:MPA] Florian Schornbaum and Ulrich Rude. Massively parallel algorithms for the lattice Boltzmann method on nonuniform grids. *SIAM Journal on Scientific Computing*, 38(2):C96–C126, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (3):C101–C130, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M146079X>. [SS93c]
- Sukys:2018:MCV**
- [SRW⁺18] Jonas Sukys, Ursula Rasthofer, Fabian Wermelinger, Panagiotis Hadjidoukas, and Petros Koumoutsakos. Multilevel control variates for uncertainty quantification in simulations of cloud cavitation. *SIAM Journal on Scientific Computing*, 40(5): B1361–B1390, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SS95]
- Sharp:1993:ERK**
- [SS93a] P. W. Sharp and E. Smart. Explicit Runge–Kutta pairs with one more derivative evaluation than the minimum. *SIAM Journal on Scientific Computing*, 14(2): 338–348, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [SS98]
- Steinthorsson:1993:MRA**
- [SS93b] Erlendur Steinthorsson and Tom I-P. Shih. Methods for reducing approximate-factorization errors in two- and three-factored schemes. *SIAM Journal on Scientific Computing*, 14(5):1214–1236, September 1993. CO-
- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Strikwerda:1993:DDM**
- John C. Strikwerda and Carl D. Scarnick. A domain decomposition method for incompressible viscous flow. *SIAM Journal on Scientific Computing*, 14(1):49–67, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Stell:1995:FDM**
- L. L. Stell and S. F. Shen. A fixed domain method for injection governed by the Stokes equations. *SIAM Journal on Scientific Computing*, 16(4):798–818, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sarin:1998:EIM**
- Vivek Sarin and Ahmed Sameh. An efficient iterative method for the generalized Stokes problem. *SIAM Journal on Scientific Computing*, 19(1):206–226, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30365>.
- Saad:1999:DSC**
- Yousef Saad and Maria Sosonkina. Distributed Schur complement techniques for

- general sparse linear systems. *SIAM Journal on Scientific Computing*, 21(4):1337–1356, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32899>.
- [SS03] **Simoncini:2003:TIK**
Valeria Simoncini and Daniel B. Szyld. Theory of inexact Krylov subspace methods and applications to scientific computing. *SIAM Journal on Scientific Computing*, 25(2):454–477, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40641>.
- [SS10a] **Shitrit:2010:TAA**
Shlomy Shitrit and David Sidilkover. Toward applying algebraic multigrid to transonic flow problem. *SIAM Journal on Scientific Computing*, 32(4):2007–2028, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SS10b] **Simoncini:2010:IIP**
Valeria Simoncini and Daniel B. Szyld. Interpreting IDR as a Petrov–Galerkin method. *SIAM Journal on Scientific Computing*, 32(4):1898–1912, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSB08] **Sundar:2008:BCB**
Hari Sundar, Rahul S. Sampath, and George Biros. Bottom-up construction and 2:1 balance refinement of linear octrees in parallel. *SIAM Journal on Scientific Computing*, 30(5):2675–2708, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSC⁺15] **Spantini:2015:OLR**
Alessio Spantini, Antti Solonen, Tiangang Cui, James Martin, Luis Tenorio, and Youssef Marzouk. Optimal low-rank approximations of Bayesian linear inverse problems. *SIAM Journal on Scientific Computing*, 37(6):A2451–A2487, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSDN12] **Sargsyan:2012:UQG**
Khachik Sargsyan, Cosmin Safta, Bert Debusschere, and Habib Najm. Uncertainty quantification given discontinuous model response and a limited number of model runs. *SIAM Journal on Scientific Computing*, 34(1):B44–B64, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32899>.

- siam.org/sisc/resource/1/sjoc3/v34/i1/pB44_s1. [SSM16]
- [SSF16] Lina Song, Haiyan Su, and Xinlong Feng. Recovery-based error estimator for stabilized finite element method for the stationary Navier–Stokes problem. *SIAM Journal on Scientific Computing*, 38(6):A3758–A3772, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSH06] Róbert Szalai, Gábor Stépán, and S. John Hogan. Continuation of bifurcations in periodic delay-differential equations using characteristic matrices. *SIAM Journal on Scientific Computing*, 28(4):1301–1317, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSJB17] K. Simon, S. Sheorey, D. W. Jacobs, and R. Basri. A hyperelastic two-scale optimization model for shape matching. *SIAM Journal on Scientific Computing*, 39(1):B165–B189, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSM+20] Klaudius Scheufele, Shashank Subramanian, Andreas Mang, George Biros, and Miriam Mehl. Image-driven biophysical tumor growth model calibration. *SIAM Journal on Scientific Computing*, 42(3):B549–B580, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSN19] Yuya Suzuki, Gowri Suryanarayana, and Dirk Nuyens. Strang splitting in combination with rank-1 and rank- r lattices for the time-dependent Schrödinger equation. *SIAM Journal on Scientific Computing*, 41(6):B1254–B1283, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SSR21] A. A. Sivas, B. S. Southworth, and S. Rhebergen. AIR algebraic multigrid for

Sanan:2016:PFK

P. Sanan, S. M. Schnepf, and D. A. May. Pipelined, flexible Krylov subspace methods. *SIAM Journal on Scientific Computing*, 38(5):C441–C470, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Scheufele:2020:IDB

Klaudius Scheufele, Shashank Subramanian, Andreas Mang, George Biros, and Miriam Mehl. Image-driven biophysical tumor growth model calibration. *SIAM Journal on Scientific Computing*, 42(3):B549–B580, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Suzuki:2019:SSC

Yuya Suzuki, Gowri Suryanarayana, and Dirk Nuyens. Strang splitting in combination with rank-1 and rank- r lattices for the time-dependent Schrödinger equation. *SIAM Journal on Scientific Computing*, 41(6):B1254–B1283, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sivas:2021:AAM

A. A. Sivas, B. S. Southworth, and S. Rhebergen. AIR algebraic multigrid for

a space-time hybridizable discontinuous Galerkin discretization of advection(-diffusion). *SIAM Journal on Scientific Computing*, 43(5): A3393–A3416, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Switzer:2022:PTE

[SSR+22]

Heather M. Switzer, Andreas Stathopoulos, Eloy Romero, Jesse Laeuchli, and Kostas Organos. Probing for the trace estimation of a permuted matrix inverse corresponding to a lattice displacement. *SIAM Journal on Scientific Computing*, 44(4):B1096–B1121, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1422495>.

[SSW98]

Schleuss:2023:RQO

[SStM23]

Julia Schleuß, Kathrin Smetana, and Lukas ter Maat. Randomized quasi-optimal local approximation spaces in time. *SIAM Journal on Scientific Computing*, 45(3): A1066–A1096, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1481002>.

[SSW12]

Sudhakar:2017:UCP

[SSVW17]

Y. Sudhakar, Alvis Sommariva, Marco Vianello, and

Wolfgang A. Wall. On the use of compressed polyhedral quadrature formulas in embedded interface methods. *SIAM Journal on Scientific Computing*, 39(3):B571–B587, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Stathopoulos:1998:DTR

Andreas Stathopoulos, Yousef Saad, and Kesheng Wu. Dynamic thick restarting of the Davidson, and the implicitly restarted Arnoldi methods. *SIAM Journal on Scientific Computing*, 19(1):227–245, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30416>.

Schury:2012:ETS

Fabian Schury, Michael Stingl, and Fabian Wein. Efficient two-scale optimization of manufacturable graded structures. *SIAM Journal on Scientific Computing*, 34(6): B711–B733, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Schmidt:2018:ENS

[SSW18]

Stephan Schmidt, Maria Schütte, and Andrea Walther. Efficient numerical solution of geometric inverse problems

- involving Maxwell's equations using shape derivatives and automatic code generation. *SIAM Journal on Scientific Computing*, 40(2): B405–B428, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST97]
- [SSW21] Anton Schiela, Matthias Stöcklein, and Martin Weiser. A primal-dual projection algorithm for efficient constraint preconditioning. *SIAM Journal on Scientific Computing*, 43(6):A4095–A4120, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST98]
- [ST94] John N. Shadid and Ray S. Tuminaro. A comparison of preconditioned nonsymmetric Krylov methods on a large-scale MIMD machine. *SIAM Journal on Scientific Computing*, 15(2): 440–459, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992). [ST00]
- [ST96] Huosheng Sun and Wei-Pai Tang. An overdetermined Schwarz alternating method. *SIAM Journal on Scientific Computing*, 17(4):884–905, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Simon:1997:HGR]
- Horst D. Simon and Shang-Hua Teng. How good is recursive bisection? *SIAM Journal on Scientific Computing*, 18(5):1436–1445, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25513>.
- [Stephan:1998:DDA] Ernst P. Stephan and Thanh Tran. Domain decomposition algorithms for indefinite hypersingular integral equations: The h and p versions. *SIAM Journal on Scientific Computing*, 19(4):1139–1153, July 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29616>.
- [Sirotkin:2000:OSM] V. Sirotkin and P. Tarvainen. Overlapping Schwarz methods for a singularly perturbed semilinear elliptic problem and their parallel implementation. *SIAM Journal on Scientific Computing*, 21(4):1587–1608, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31799>. [ST14a]
- [ST03] **Sasakawa:2003:OMS**
Takashi Sasakawa and Takashi Tsuchiya. Optimal magnetic shield design with second-order cone programming. *SIAM Journal on Scientific Computing*, 24(6):1930–1950, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38035>. [ST14b]
- [ST08] **Sala:2008:NPG**
Marzio Sala and Raymond S. Tuminaro. A new Petrov–Galerkin smoothed aggregation preconditioner for non-symmetric linear systems. *SIAM Journal on Scientific Computing*, 31(1):143–166, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST16a]
- [ST11] **Strakos:2011:ENA**
Zdenek Strakos and Petr Tichý. On efficient numerical approximation of the bilinear form $c^*A^{-1}b$. *SIAM Journal on Scientific Computing*, 33(2):565–587, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p565_s1. [ST16b]
- Scott:2014:PSM**
Jennifer Scott and Miroslav Tuma. On positive semidefinite modification schemes for incomplete Cholesky factorization. *SIAM Journal on Scientific Computing*, 36(2):A609–A633, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Scott:2014:SIC**
Jennifer Scott and Miroslav Tuma. On signed incomplete Cholesky factorization preconditioners for saddle-point systems. *SIAM Journal on Scientific Computing*, 36(6):A2984–A3010, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sangalli:2016:IPB**
Giancarlo Sangalli and Mattia Tani. Isogeometric preconditioners based on fast solvers for the Sylvester equation. *SIAM Journal on Scientific Computing*, 38(6):A3644–A3671, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Scott:2016:PLL**
Jennifer Scott and Miroslav Tuma. Preconditioning of linear least squares by robust incomplete factorization for implicitly held normal equations. *SIAM Journal on*

- Scientific Computing*, 38(6): C603–C623, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST22a]
- [ST17a] Birte Schmidtman and Manuel Torrilhon. A hybrid Riemann solver for large hyperbolic systems of conservation laws. *SIAM Journal on Scientific Computing*, 39(6):A2911–A2934, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST22b]
- [ST17b] Jennifer Scott and Miroslav Tuma. Solving mixed sparse-dense linear least-squares problems by preconditioned iterative methods. *SIAM Journal on Scientific Computing*, 39(6):A2422–A2437, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ST23]
- [ST19] Jennifer A. Scott and Miroslav Tuma. Sparse stretching for solving sparse-dense linear least-squares problems. *SIAM Journal on Scientific Computing*, 41(3):A1604–A1625, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Shi:2022:PCE**
Wenjie Shi and Daniel M. Tartakovsky. Polynomial chaos expansions for stiff random ODEs. *SIAM Journal on Scientific Computing*, 44(3):A1021–A1046, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432545>.
- Song:2022:IMS**
Zexi Song and Zhiqiang Tan. On irreversible Metropolis sampling related to Langevin dynamics. *SIAM Journal on Scientific Computing*, 44(4):A2089–A2120, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1423701>.
- Smetana:2023:LMR**
Kathrin Smetana and Tommaso Taddei. Localized model reduction for nonlinear elliptic partial differential equations: Localized training, partition of unity, and adaptive enrichment. *SIAM Journal on Scientific Computing*, 45(3):A1300–A1331, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M148402X>.
- Scott:2017:HRS**
- Scott:2017:SMS**
- Scott:2019:SSS**

- [Sta94] **Starke:1994:ADP** Gerhard Starke. Alternating direction preconditioning for nonsymmetric systems of linear equations. *SIAM Journal on Scientific Computing*, 15(2):369–384, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- [Sta07] **Starke:1997:SOS** Gerhard Starke. Subspace orthogonalization for substructuring preconditioners for non-self-adjoint elliptic problems. *SIAM Journal on Scientific Computing*, 18(4):1108–1121, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25908>.
- [Sta00] **Starke:2000:LSM** Gerhard Starke. Least-squares mixed finite element solution of variably saturated subsurface flow problems. *SIAM Journal on Scientific Computing*, 21(5):1869–1885, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33938>.
- [STCK21] **Stathopoulos:2007:NOPa** Andreas Stathopoulos. Nearly optimal preconditioned methods for Hermitian eigenproblems under limited memory. Part I: Seeking one eigenvalue. *SIAM Journal on Scientific Computing*, 29(2):481–514, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ste99] **Sandu:2021:CHO** Adrian Sandu, Vladimir Tomov, Lenka Cervena, and Tzanio Kolev. Conservative high-order time integration for Lagrangian hydrodynamics. *SIAM Journal on Scientific Computing*, 43(1):A221–A241, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ste00] **Stewart:1999:QAS** G. W. Stewart. The QLP approximation to the singular value decomposition. *SIAM Journal on Scientific Computing*, 20(4):1336–1348, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31951>.
- [Ste00] **Steinbach:2000:ABE** O. Steinbach. Adaptive boundary element methods based on computational

- schemes for Sobolev norms. *SIAM Journal on Scientific Computing*, 22(2):604–616, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35299>. [Ste11]
- Stefanica:2001:NSF**
- [Ste01] Dan Stefanica. A numerical study of FETI algorithms for mortar finite element methods. *SIAM Journal on Scientific Computing*, 23(4):1135–1160, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37882>. [Ste16]
- Stewart:2002:ARQ**
- [Ste02] G. W. Stewart. Adjusting the Rayleigh quotient in semiorthogonal Lanczos methods. *SIAM Journal on Scientific Computing*, 24(1):201–207, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38898>. [Sto21]
- Stewart:2008:BGS**
- [Ste08] G. W. Stewart. Block Gram-Schmidt orthogonalization. *SIAM Journal on Scientific Computing*, 31(1):761–775, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Str93]
- Stefanov:2011:DCR**
- Stefan K. Stefanov. On DSMC calculations of rarefied gas flows with small number of particles in cells. *SIAM Journal on Scientific Computing*, 33(2):677–702, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p677_s1.
- Steinlechner:2016:ROH**
- Michael Steinlechner. Riemannian optimization for high-dimensional tensor completion. *SIAM Journal on Scientific Computing*, 38(5):S461–S484, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Stolk:2021:TDP**
- Christiaan C. Stolk. A time-domain preconditioner for the Helmholtz equation. *SIAM Journal on Scientific Computing*, 43(5):A3469–A3502, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Stromberg:1993:CEL**
- Arnold Stromberg. Computing the exact least median of squares estimate and stability diagnostics in

multiple linear regression. *SIAM Journal on Scientific Computing*, 14(6):1289–1299, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://locus.siam.org/SISC/volume-14/art_0914076.html.

Strain:1994:FAM

[Str94]

John Strain. Fast adaptive methods for the free-space heat equation. *SIAM Journal on Scientific Computing*, 15(1):185–206, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Strain:1995:LCM

[Str95]

John Strain. Locally corrected multidimensional quadrature rules for singular functions. *SIAM Journal on Scientific Computing*, 16(4):992–1017, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Strand:1999:SAW

[Str99]

Bo Strand. Simulations of acoustic wave phenomena using high-order finite difference approximations. *SIAM Journal on Scientific Computing*, 20(5):1585–1604, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31252>.

[/epubs.siam.org/sam-bin/dbq/article/31252](http://epubs.siam.org/sam-bin/dbq/article/31252).

Strohmer:2000:LGA

[Str00a]

Thomas Strohmer. A Levinson–Galerkin algorithm for regularized trigonometric approximation. *SIAM Journal on Scientific Computing*, 22(4):1160–1183, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32925>.

Struckmeier:2000:SSP

[Str00b]

Jens Struckmeier. A steady-state particle method for the Boltzmann equation. *SIAM Journal on Scientific Computing*, 21(4):1435–1457, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33317>.

Sun:2021:ECP

[STY21]

Hongpeng Sun, Xue-Cheng Tai, and Jing Yuan. Efficient and convergent preconditioned ADMM for the Potts models. *SIAM Journal on Scientific Computing*, 43(2):B455–B478, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [SU15] **Springer:2015:ABO**
 Julia Springer and Karsten Urban. Adjoint-based optimization for rigid body motion in multiphase Navier–Stokes flow. *SIAM Journal on Scientific Computing*, 37(2): B185–B214, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sun93] **Sun:1993:SPA**
 Jia Yang Sun. Some practical aspects of exploratory projection pursuit. *SIAM Journal on Scientific Computing*, 14(1):68–80, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sun95] **Sun:1995:IAO**
 W. Sun. Iterative algorithms for orthogonal spline collocation linear systems. *SIAM Journal on Scientific Computing*, 16(3):720–737, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Sun96] **Sun:1996:PSO**
 Chunguang Sun. Parallel sparse orthogonal factorization on distributed-memory multiprocessors. *SIAM Journal on Scientific Computing*, 17(3):666–685, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26044>.
- [Sur00] **Suresh:2000:PPS**
 Ambady Suresh. Positivity-preserving schemes in multidimensions. *SIAM Journal on Scientific Computing*, 22(4):1184–1198, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36044>.
- [SV00] **Simoens:2000:WRF**
 Jo Simoens and Stefan Vandewalle. Waveform relaxation with fast direct methods as preconditioner. *SIAM Journal on Scientific Computing*, 21(5):1755–1773, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33898>.
- [SV01] **Szyld:2001:FFQ**
 Daniel B. Szyld and Judith A. Vogel. FQMR: a flexible quasi-minimal residual method with inexact preconditioning. *SIAM Journal on Scientific Computing*, 23(2):363–380, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37336>.

- [SV03] **Simoens:2003:SLC**
 Jo Simoens and Stefan Vandewalle. A stabilized lifting construction of wavelets on irregular meshes on the interval. *SIAM Journal on Scientific Computing*, 24(4):1356–1378, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37657>. [SV13]
- [SV08a] **Schmich:2008:ADM**
 Michael Schmich and Boris Vexler. Adaptivity with dynamic meshes for space–time finite element discretizations of parabolic equations. *SIAM Journal on Scientific Computing*, 30(1):369–393, ??? [SV21] 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SV08b] **Srijuntongsiri:2008:CNA**
 Gun Srijuntongsiri and Stephen A. Vavasis. A condition number analysis of a line-surface intersection algorithm. *SIAM Journal on Scientific Computing*, 30(2):1064–1081, ??? [SV23] 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SV11] **Srijuntongsiri:2011:CNA**
 Gun Srijuntongsiri and Stephen A. Vavasis. A condition number analysis of an algorithm for solving a system of polynomial equations with one degree of freedom. *SIAM Journal on Scientific Computing*, 33(1):433–454, ??? 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p433_s1.
- Sadiq:2013:BHI**
 Burhan Sadiq and Divakar Viswanath. Barycentric Hermite interpolation. *SIAM Journal on Scientific Computing*, 35(3):A1254–A1270, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Sutti:2021:RML**
 Marco Sutti and Bart Vandereycken. Riemannian multigrid line search for low-rank problems. *SIAM Journal on Scientific Computing*, 43(3):A1803–A1831, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Schwerdtner:2023:SSO**
 Paul Schwerdtner and Matthias Voigt. SOBMOR: Structured optimization-based model order reduction. *SIAM Journal on Scientific Computing*, 45(2):A502–A529, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1380235>.

- [SvdGP16] **Schatz:2016:PMM**
 Martin D. Schatz, Robert A. van de Geijn, and Jack Poulson. Parallel matrix multiplication: a systematic journey. *SIAM Journal on Scientific Computing*, 38(6):C748–C781, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SvG08] **Sonneveld:2008:IFS**
 Peter Sonneveld and Martin B. van Gijzen. IDR(s): a family of simple and fast algorithms for solving large non-symmetric systems of linear equations. *SIAM Journal on Scientific Computing*, 31(2):1035–1062, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SvG10a] **Sleijpen:2010:EB**
 Gerard L. G. Sleijpen and Martin B. van Gijzen. Exploiting BiCGstab(ℓ) strategies to induce dimension reduction. *SIAM Journal on Scientific Computing*, 32(5):2687–2709, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SVG10b] **Spivak:2010:FGG**
 Marina Spivak, Shravan K. Veerapaneni, and Leslie Greengard. The fast generalized Gauss transform. *SIAM Journal on Scientific Computing*, 32(5):3092–3107, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SVX15] **Szyld:2015:PEL**
 Daniel B. Szyld, Eugene Vecharynski, and Fei Xue. Preconditioned eigensolvers for large-scale nonlinear Hermitian eigenproblems with variational characterizations. II. interior eigenvalues. *SIAM Journal on Scientific Computing*, 37(6):A2969–A2997, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SW01] **Schneider:2001:KSE**
 Michael K. Schneider and Alan S. Willsky. Krylov subspace estimation. *SIAM Journal on Scientific Computing*, 22(5):1840–1864, September 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35729>.
- [SW03] **Sleijpen:2003:EMP**
 Gerard L. G. Sleijpen and Fred W. Wubs. Exploiting multilevel preconditioning techniques in eigenvalue computations. *SIAM Journal on Scientific Computing*, 25(4):1249–1272, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/36105.

Stumm:2009:MSA

- [SW09] Philipp Stumm and Andrea Walther. Multi-stage approaches for optimal offline checkpointing. *SIAM Journal on Scientific Computing*, 31(3):1946–1967, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Stumm:2010:NAO

- [SW10a] Philipp Stumm and Andrea Walther. New algorithms for optimal online checkpointing. *SIAM Journal on Scientific Computing*, 32(2):836–854, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Szusz:2010:LTA

- [SW10b] Emily K. Szusz and Allan R. Willms. A linear time algorithm for near minimax continuous piecewise linear representations of discrete data. *SIAM Journal on Scientific Computing*, 32(5):2584–2602, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Stoyanov:2015:NAF

- [SW15] Miroslav Stoyanov and Clayton Webster. Numerical analysis of fixed point algorithms in the presence of hardware faults. *SIAM Journal on*

Scientific Computing, 37(5):C532–C553, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shen:2016:MGM

- [SW16] Jie Shen and Yingwei Wang. Müntz–Galerkin methods and applications to mixed Dirichlet–Neumann boundary value problems. *SIAM Journal on Scientific Computing*, 38(4):A2357–A2381, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Siebenborn:2017:AAM

- [SW17] Martin Siebenborn and Kathrin Welker. Algorithmic aspects of multigrid methods for optimization in shape spaces. *SIAM Journal on Scientific Computing*, 39(6):B1156–B1177, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sliwiak:2022:SSA

- [SW22a] Adam A. Sliwiak and Qiqi Wang. Space-split algorithm for sensitivity analysis of discrete chaotic systems with multidimensional unstable manifolds. *SIAM Journal on Scientific Computing*, 44(5):A3290–A3316, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://>

[//epubs.siam.org/doi/10.1137/21M1452135](https://epubs.siam.org/doi/10.1137/21M1452135).

Sliwiak:2022:TDA

- [SW22b] Adam A. Sliwiak and Qiqi Wang. A trajectory-driven algorithm for differentiating SRB measures on unstable manifolds. *SIAM Journal on Scientific Computing*, 44(1):A312–A336, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1431916>.

Swarztrauber:2002:CPW

- [Swa02] Paul N. Swarztrauber. On computing the points and weights for Gauss–Legendre quadrature. *SIAM Journal on Scientific Computing*, 24(3):945–954, May 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37969>.

Schmidt:2016:LST

- [SWB16] Stephan Schmidt, Eddie Wadbro, and Martin Berggren. Large-scale three-dimensional acoustic horn optimization. *SIAM Journal on Scientific Computing*, 38(6):B917–B940, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shankar:2020:RHF

- [SWN20] Varun Shankar, Grady B. Wright, and Akil Narayan. A robust hyperviscosity formulation for stable RBF-FD discretizations of advection–diffusion–reaction equations on manifolds. *SIAM Journal on Scientific Computing*, 42(4):A2371–A2401, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sheu:2000:EEP

- [SWT00] Tony W. H. Sheu, Morten M. T. Wang, and S. F. Tsai. Element-by-element parallel computation of incompressible Navier–Stokes equations in three dimensions. *SIAM Journal on Scientific Computing*, 21(4):1387–1400, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33541>.

Storath:2016:EAT

- [SWU16] Martin Storath, Andreas Weinmann, and Michael Unser. Exact algorithms for L^1 -TV regularization of real-valued or circle-valued signals. *SIAM Journal on Scientific Computing*, 38(1):A614–A630, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [SWW08] **Schenk:2008:IRP**
 Olaf Schenk, Andreas Wächter, and Martin Weiser. Inertia-revealing preconditioning for large-scale nonconvex constrained optimization. *SIAM Journal on Scientific Computing*, 31(2):939–960, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SWX16] **Shen:2016:FSD**
 Jie Shen, Yingwei Wang, and Jianlin Xia. Fast structured direct spectral methods for differential equations with variable coefficients, I. The one-dimensional case. *SIAM Journal on Scientific Computing*, 38(1):A28–A54, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SX11] **Sun:2011:USB**
 Yuanchang Sun and Jack Xin. Underdetermined sparse blind source separation of nonnegative and partially overlapped data. *SIAM Journal on Scientific Computing*, 33(4):2063–2094, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p2063_s1
- [SX16a] **Shin:2016:CDC**
 Yeonjong Shin and Dongbin Xiu. Correcting data corruption errors for multivariate function approximation. *SIAM Journal on Scientific Computing*, 38(4):A2492–A2511, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SX16b] **Shin:2016:NQO**
 Yeonjong Shin and Dongbin Xiu. Nonadaptive quasi-optimal points selection for least squares linear regression. *SIAM Journal on Scientific Computing*, 38(1):A385–A411, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SX17] **Shin:2017:RAM**
 Yeonjong Shin and Dongbin Xiu. A randomized algorithm for multivariate function approximation. *SIAM Journal on Scientific Computing*, 39(3):A983–A1002, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SXX17] **Song:2017:CFL**
 Fangying Song, Chuanju Xu, and George Em Karniadakis. Computing fractional Laplacians on complex-geometry domains: Algorithms and simulations. *SIAM Journal on Scientific Computing*, 39(4):A1320–A1344, 2017. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Shen:2022:ESF

[SXL⁺22]

Lingyue Shen, Zhiliang Xu, Ping Lin, Huaxiong Huang, and Shixin Xu. An energy stable C^0 finite element scheme for a phase-field model of vesicle motion and deformation. *SIAM Journal on Scientific Computing*, 44(1):B122–B145, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416631>.

Shi:2022:AFD

[SXXN22]

Hao-Jun Michael Shi, Yuchen Xie, Melody Qiming Xuan, and Jorge Nocedal. Adaptive finite-difference interval estimation for noisy derivative-free optimization. *SIAM Journal on Scientific Computing*, 44(4):A2302–A2321, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452470>.

Sheng:2008:NPS

[SY08]

Zhiqiang Sheng and Guangwei Yuan. A nine point scheme for the approximation of diffusion operators on distorted quadrilateral meshes. *SIAM Journal on Scientific Computing*, 30(3):1341–1361, 2008. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Shen:2010:PFM

[SY10a]

Jie Shen and Xiaofeng Yang. A phase-field model and its numerical approximation for two-phase incompressible flows with different densities and viscosities. *SIAM Journal on Scientific Computing*, 32(3):1159–1179, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shen:2010:ESS

[SY10b]

Jie Shen and Haijun Yu. Efficient spectral sparse grid methods and applications to high-dimensional elliptic problems. *SIAM Journal on Scientific Computing*, 32(6):3228–3250, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Shen:2012:ESS

[SY12]

Jie Shen and Haijun Yu. Efficient spectral sparse grid methods and applications to high-dimensional elliptic equations II. Unbounded domains. *SIAM Journal on Scientific Computing*, 34(2):A1141–A1164, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [SY14] **Shen:2014:DES**
 Jie Shen and Xiaofeng Yang. Decoupled energy stable schemes for phase-field models of two-phase complex fluids. *SIAM Journal on Scientific Computing*, 36(1):B122–B145, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SY18] **Sheng:2018:CNW**
 Zhiqiang Sheng and Guangwei Yuan. Construction of nonlinear weighted method for finite volume schemes preserving maximum principle. *SIAM Journal on Scientific Computing*, 40(1):A607–A628, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SYEG00] **Saad:2000:DVC**
 Y. Saad, M. Yeung, J. Erhel, and F. Guyomarc’h. A deflated version of the conjugate gradient algorithm. *SIAM Journal on Scientific Computing*, 21(5):1909–1926, September 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33976>.
- [SYY09] **Sheng:2009:MFV**
 Zhiqiang Sheng, Jingyan Yue, and Guangwei Yuan. Monotone finite volume schemes of nonequilibrium radiation diffusion equations on distorted meshes. *SIAM Journal on Scientific Computing*, 31(4):2915–2934, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SYZO15] **Schaeffer:2015:RTA**
 Hayden Schaeffer, Yi Yang, Hongkai Zhao, and Stanley Osher. Real-time adaptive video compression. *SIAM Journal on Scientific Computing*, 37(6):B980–B1001, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [SZ99] **Saad:1999:BBV**
 Yousef Saad and Jun Zhang. BILUM: Block versions of multielimination and multi-level ILU preconditioner for general sparse linear systems. *SIAM Journal on Scientific Computing*, 20(6):2103–2121, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32753>.
- [SZ00] **Simon:2000:LRM**
 Horst D. Simon and Hongyuan Zha. Low-rank matrix approximation using the Lanczos bidiagonalization process with applications. *SIAM Journal on Scientific Computing*, 21(6):2257–

2274, November 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32730>.

Shen:2006:DCS

[SZ06]

Lihua Shen and Aihui Zhou. A defect correction scheme for finite element eigenvalues with applications to quantum chemistry. *SIAM Journal on Scientific Computing*, 28(1):321–338, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61401.html.

[SZW20]

Smetana:2019:RRB

[SZP19]

Kathrin Smetana, Olivier Zahm, and Anthony T. Patera. Randomized residual-based error estimators for parametrized equations. *SIAM Journal on Scientific Computing*, 41(2):A900–A926, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[SZZ21]

Skeel:1997:FSI

[SZS97]

Robert D. Skeel, Guihua Zhang, and Tamar Schlick. A family of symplectic integrators: Stability, accuracy, and molecular dynamics applications. *SIAM Journal on Scientific Computing*, 18(1):203–222, January 1997. CODEN SJOCE3. ISSN

[Tad20]

1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28235>. Dedicated to C. William Gear on the occasion of his 60th birthday.

Su:2020:FCA

Wei Su, Lianhua Zhu, and Lei Wu. Fast convergence and asymptotic preserving of the general synthetic iterative scheme. *SIAM Journal on Scientific Computing*, 42(6):B1517–B1540, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Sheng:2021:DEG

Wancheng Sheng, Qinglong Zhang, and Yuxi Zheng. A direct Eulerian GRP scheme for a blood flow model in arteries. *SIAM Journal on Scientific Computing*, 43(3):A1975–A1996, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Taddei:2020:RMM

Tommaso Taddei. A registration method for model order reduction: Data compression and geometry reduction. *SIAM Journal on Scientific Computing*, 42(2):A997–A1027, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [TAHR15] **Tumblin:2015:PCH**
 Rebecka Tumblin, Peter Ahrens, Sara Hartse, and Robert W. Robey. Parallel compact hash algorithms for computational meshes. *SIAM Journal on Scientific Computing*, 37(1):C31–C53, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tal15] **Talischi:2015:FFE**
 Cameron Talischi. A family of $H(\text{div})$ finite element approximations on polygonal meshes. *SIAM Journal on Scientific Computing*, 37(2):A1067–A1088, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tan93] **Tang:1993:HSM**
 Tao Tang. The Hermite spectral method for Gaussian-type functions. *SIAM Journal on Scientific Computing*, 14(3):594–606, May 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tao22] **Tao:2022:MSS**
 Min Tao. Minimization of L_1 over L_2 for sparse signal recovery with convergence guarantee. *SIAM Journal on Scientific Computing*, 44(2):A770–A797, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M136801X>.
- [Tap22] **Tapley:2022:GIO**
 Benjamin K. Tapley. Geometric integration of ODEs using multiple quadratic auxiliary variables. *SIAM Journal on Scientific Computing*, 44(4):A2651–A2668, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1442644>.
- [Tau96] **Tausch:1996:EPB**
 Johannes Tausch. Equivariant preconditioners for boundary element methods. *SIAM Journal on Scientific Computing*, 17(1):90–99, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [TAY+19] **Thomas:2019:CCA**
 S. J. Thomas, S. Ananthan, S. Yellapantula, J. J. Hu, M. Lawson, and M. A. Sprague. A comparison of classical and aggregation-based algebraic multigrid preconditioners for high-fidelity simulation of wind turbine incompressible flows. *SIAM Journal on Scientific Computing*, 41(5):S196–S219, 2019. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Tang:1999:UAF

[TB99a]

Lei Tang and James D. Baeder. Uniformly accurate finite difference schemes for p -refinement. *SIAM Journal on Scientific Computing*, 20(3):1115–1131, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30835>.

Tolsma:1999:ECS

[TB99b]

John E. Tolsma and Paul I. Barton. Efficient calculation of sparse Jacobians. *SIAM Journal on Scientific Computing*, 20(6):2282–2296, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31655>.

Tolsma:2002:HDP

[TB02]

John E. Tolsma and Paul I. Barton. Hidden discontinuities and parametric sensitivity calculations. *SIAM Journal on Scientific Computing*, 23(6):1862–1875, November 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37281>.

Tuminaro:2011:SSC

[TBC⁺11]

Ray Tuminaro, Michele Benzi, Xiao-Chuan Cai, Iain Duff, Howard Elman, Roland Freund, Kirk Jordan, Tim Kelley, David Keyes, Misha Kilmer, Sven Leyffer, Tom Manteuffel, Steve McCormick, David Silvester, and Homer Walker. Special section: 2010 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 33(5):2685, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2685_s1.

Thompson:2023:LFA

[TBH23]

Jeremy L. Thompson, Jed Brown, and Yunhui He. Local Fourier analysis of p -multigrid for high-order finite element operators. *SIAM Journal on Scientific Computing*, 45(3):S351–S370, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1431199>.

Thanh:2014:RRI

[TBKF14]

Nguyen Trung Thành, Larisa Beilina, Michael V. Klibanov, and Michael A. Fiddy. Reconstruction of the refractive index from experimental backscattering data using a globally convergent inverse method. *SIAM Journal on*

- Scientific Computing*, 36(3): B273–B293, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TC12]
- [TBM21] **Tamstorf:2021:DEA**
Rasmus Tamstorf, Joseph Benzaken, and Stephen F. McCormick. Discretization-error-accurate mixed-precision multigrid solvers. *SIAM Journal on Scientific Computing*, 43(5):S420–S447, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TCCK18]
- [TBO10] **Turner:2010:EBL**
Ian W. Turner, John A. Belward, and Moa’ath N. Oqielat. Error bounds for least squares gradient estimates. *SIAM Journal on Scientific Computing*, 32(4): 2146–2166, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TCDS21]
- [TC99] **Torres:1999:PST**
D. J. Torres and E. A. Coutsias. Pseudospectral solution of the two-dimensional Navier–Stokes equations in a disk. *SIAM Journal on Scientific Computing*, 21(1):378–403, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33015>. [TCWW20]
- Thuburn:2012:FMD**
J. Thuburn and C. J. Cotter. A framework for mimetic discretization of the rotating shallow-water equations on arbitrary polygonal grids. *SIAM Journal on Scientific Computing*, 34(3):B203–B225, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Tsantili:2018:CSM**
Ivi C. Tsantili, Min Hyung Cho, Wei Cai, and George Em Karniadakis. A computational stochastic methodology for the design of random meta-materials under geometric constraints. *SIAM Journal on Scientific Computing*, 40(2):B353–B378, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Tendero:2021:ASC**
Yohann Tendero, Igor Ciril, Jérôme Darbon, and Susana Serna. An algorithm solving compressive sensing problem based on maximal monotone operators. *SIAM Journal on Scientific Computing*, 43(6): A4067–A4094, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Tian:2020:GSS**
Tonghua Tian, Yongyong Cai, Xinming Wu, and Zai-

wen Wen. Ground states of spin- F Bose–Einstein condensates. *SIAM Journal on Scientific Computing*, 42(4): B983–B1013, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tao:2019:SGC

[TCZC19]

Zhanjing Tao, Anqi Chen, Mengping Zhang, and Yingda Cheng. Sparse grid central discontinuous Galerkin method for linear hyperbolic systems in high dimensions. *SIAM Journal on Scientific Computing*, 41(3): A1626–A1651, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[TE07]

preconditioner for the cubed-sphere. *SIAM Journal on Scientific Computing*, 25(2): 442–453, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40942>.

Tal-Ezer:2007:REE

Hillel Tal-Ezer. On restart and error estimation for Krylov approximation of $w = f(A)v$. *SIAM Journal on Scientific Computing*, 29(6): 2426–2441, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Toth:2017:LIR

[TD99]

Françoise Tisseur and Jack Dongarra. A parallel divide and conquer algorithm for the symmetric eigenvalue problem on distributed memory architectures. *SIAM Journal on Scientific Computing*, 20(6): 2223–2236, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33695>.

[TEE⁺17]

Alex Toth, J. Austin Ellis, Tom Evans, Steven Hamilton, C. T. Kelley, Roger Pawlowski, and Stuart Slatery. Local improvement results for Anderson acceleration with inaccurate function evaluations. *SIAM Journal on Scientific Computing*, 39(5):S47–S65, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

tenVregelaar:1995:COF

[TDTF03]

Stephen J. Thomas, John M. Dennis, Henry M. Tufo, and Paul F. Fischer. A Schwarz

[ten95]

Jan M. ten Vregelaar. On computing objective function and gradient in the context of least squares fitting a dynamic errors-in-variables model. *SIAM Journal on*

Scientific Computing, 16(3): 738–753, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Teng:1998:PGP

[Ten98]

Shang-Hua Teng. Provably good partitioning and load balancing algorithms for parallel adaptive N-body simulation. *SIAM Journal on Scientific Computing*, 19(2):635–656, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28894>.

Tal-Ezer:2010:ISR

[TET10]

Hillel Tal-Ezer and Eli Turkel. The iterative solver RISOLV with application to the exterior Helmholtz problem. *SIAM Journal on Scientific Computing*, 32(1):463–475, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tartakovsky:2004:EPR

[TG04]

Daniel M. Tartakovsky and Alberto Guadagnini. Effective properties of random composites. *SIAM Journal on Scientific Computing*, 26(2):625–635, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42711>.

[/epubs.siam.org/sam-bin/dbq/article/42711](http://epubs.siam.org/sam-bin/dbq/article/42711).

Taijeron:1994:SIS

[TGC94]

H. J. Taijeron, A. G. Gibson, and C. Chandler. Spline interpolation and smoothing on hyperspheres. *SIAM Journal on Scientific Computing*, 15(5):1111–1125, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Torda:2023:ETR

[TGPK23]

Miloslav Torda, John Y. Goulermas, Roland Púcek, and Vitaliy Kurlin. Entropic trust region for densest crystallographic symmetry group packings. *SIAM Journal on Scientific Computing*, 45(4):B493–B522, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M147983X>.

Tomita:2008:NAA

[TGS08]

Hirofumi Tomita, Koji Goto, and Masaki Satoh. A new approach to atmospheric general circulation model: Global cloud resolving model NICAM and its computational performance. *SIAM Journal on Scientific Computing*, 30(6):2755–2776, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [TH17] **Treister:2017:FWI**
 Eran Treister and Eldad Haber. Full waveform inversion guided by travel time tomography. *SIAM Journal on Scientific Computing*, 39(5): S587–S609, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TK13]
- [Tie18] **Tierens:2018:ULC**
 Wouter Tierens. Unification of leapfrog and Crank–Nicolson finite difference time domain methods. *SIAM Journal on Scientific Computing*, 40(1):A306–A330, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TKCC13]
- [Til15] **Tillenius:2015:SSM**
 Martin Tillenius. SuperGlue: a shared memory framework using data versioning for dependency-aware task-based parallelization. *SIAM Journal on Scientific Computing*, 37(6):C617–C642, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tim19] **Timonov:2019:NSR**
 Alexandre Timonov. Numerical solution of a regularized weighted mean curvature flow problem for electrical conductivity imaging. *SIAM Journal on Scientific Computing*, 41(5):B1137–B1154, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [TKK16]
- Tauriello:2013:CRP**
 Gerardo Tauriello and Petros Koumoutsakos. Coupling remeshed particle and phase field methods for the simulation of reaction-diffusion on the surface and the interior of deforming geometries. *SIAM Journal on Scientific Computing*, 35(6):B1285–B1303, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Taitano:2013:DCS**
 William T. Taitano, Dana A. Knoll, Luis Chacón, and Guangye Chen. Development of a consistent and stable fully implicit moment method for Vlasov–Ampère Particle in Cell (PIC) system. *SIAM Journal on Scientific Computing*, 35(5):S126–S149, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Touma:2016:WBU**
 R. Touma, U. Koley, and C. Klingenberg. Well-balanced unstaggered central schemes for the Euler equations with gravitation. *SIAM Journal on Scientific Computing*, 38(5):B773–B807, 2016. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Tan:2008:LSB

[TKW08]

K. L. Tan, B. C. Khoo, and J. K. White. A level set-boundary element method for the simulation of underwater bubble dynamics. *SIAM Journal on Scientific Computing*, 30(2):549–571, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tryoen:2012:AAS

[TLE12]

J. Tryoen, O. Le Maître, and A. Ern. Adaptive anisotropic spectral stochastic methods for uncertain scalar conservation laws. *SIAM Journal on Scientific Computing*, 34(5):A2459–A2481, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tominec:2021:LSR

[TLH21]

Igor Tominec, Elisabeth Larsson, and Alfa Heryudono. A least squares radial basis function finite difference method with improved stability properties. *SIAM Journal on Scientific Computing*, 43(2):A1441–A1471, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tan:2009:IIM

[TLLK09]

Zhijun Tan, D. V. Le, K. M. Lim, and B. C. Khoo. An im-

mersed interface method for the incompressible Navier–Stokes equations with discontinuous viscosity across the interface. *SIAM Journal on Scientific Computing*, 31(3):1798–1819, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tian:2023:BSC

[TLLL23]

Heng Tian, Tiexiang Li, Xing-Long Lyu, and Wen-Wei Lin. Band structure calculations of three-dimensional anisotropic photonic crystals in the oblique coordinate system. *SIAM Journal on Scientific Computing*, 45(4):B440–B466, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1507863>.

Tamellini:2014:MRB

[TLN14]

L. Tamellini, O. Le Maître, and A. Nouy. Model reduction based on proper generalized decomposition for the stochastic steady incompressible Navier–Stokes equations. *SIAM Journal on Scientific Computing*, 36(3):A1089–A1117, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tokman:2012:NAE

[TLL12]

M. Tokman, J. Loffeld, and

- P. Tranquilli. New adaptive exponential propagation iterative methods of Runge–Kutta type. *SIAM Journal on Scientific Computing*, 34(5):A2650–A2669, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TM14] Eleuterio F. Toro and Gino I. Montecinos. Advection-diffusion-reaction equations: Hyperbolization and high-order ADER discretizations. *SIAM Journal on Scientific Computing*, 36(5):A2423–A2457, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TMA18] F. Sukru Torun, Murat Manguglu, and Cevdet Aykanat. A novel partitioning method for accelerating the block Cimmino algorithm. *SIAM Journal on Scientific Computing*, 40(6):C827–C850, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TMA23] F. Sukru Torun, Murat Manguglu, and Cevdet Aykanat. Enhancing block Cimmino for sparse linear systems with dense columns via Schur complement. *SIAM Journal on Scientific Computing*, 45(2):C49–C72, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1453475>.
- [TMM20] X. T. Tong, M. Morzfeld, and Y. M. Marzouk. MALA-within-Gibbs samplers for high-dimensional distributions with sparse conditional structure. *SIAM Journal on Scientific Computing*, 42(3):A1765–A1788, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TN16] Alexandra Tcheng and Jean-Christophe Nave. A fast-marching algorithm for non-monotonically evolving fronts. *SIAM Journal on Scientific Computing*, 38(4):A2307–A2333, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TO15] Viktoria Taroudaki and Dianne P. O’Leary. Near-optimal spectral filtering and error estimation for solving ill-posed problems. *SIAM Journal on Scientific Computing*, 37(6):A2947–A2968, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Toro:2014:ADR**Tong:2020:MWG****Torun:2018:NPM****Tcheng:2016:FMA****Torun:2023:EBC****Taroudaki:2015:NOS**

- [Toi96] **Toint:1996:ANL**
 Philippe L. Toint. An assessment of nonmonotone linesearch techniques for unconstrained optimization. *SIAM Journal on Scientific Computing*, 17(3): 725–739, May 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27021>.
- [Toi08] Jari Toivanen. Numerical valuation of European and American options under Kou’s jump-diffusion model. *SIAM Journal on Scientific Computing*, 30(4):1949–1970, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ton94] **Tong:1994:FQM**
 Charles H. Tong. A family of quasi-minimal residual methods for nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 15(1): 89–105, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tor05] **Torrilhon:2005:LDP**
 Manuel Torrilhon. Locally divergence-preserving upwind finite volume schemes for magnetohydrodynamic equations. *SIAM Journal on Scientific Computing*, 26(4): 1166–1191, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42640>.
- [Tor12] **Torrilhon:2012:KRS**
 Manuel Torrilhon. Krylov–Riemann solver for large hyperbolic systems of conservation laws. *SIAM Journal on Scientific Computing*, 34(4):A2072–A2091, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tou22] **Toulopoulos:2022:NSQ**
 Ioannis Toulopoulos. Numerical solutions of quasilinear parabolic problems by a continuous space-time finite element scheme. *SIAM Journal on Scientific Computing*, 44(5):A2944–A2973, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1403722>.
- [TP99] **Tsitouras:1999:CEE**
 Ch. Tsitouras and S. N. Papakostas. Cheap error estimation for Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 20(6): 2067–2088, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42640>.

/epubs.siam.org/sam-bin/dbq/article/30223.

Trask:2017:HOS

- [TP09] Joseph M. Teran and Charles S. Peskin. Tether force constraints in Stokes flow by the immersed boundary method on a periodic domain. *SIAM Journal on Scientific Computing*, 31(5):3404–3416, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TPB17] **Teran:2009:TFC** Nathaniel Trask, Mauro Perego, and Pavel Bochev. A high-order staggered meshless method for elliptic problems. *SIAM Journal on Scientific Computing*, 39(2):A479–A502, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TP18] Tommaso Taddei and Anthony T. Patera. A localization strategy for data assimilation; application to state estimation and parameter estimation. *SIAM Journal on Scientific Computing*, 40(2):B611–B636, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TPQD22] **Taddei:2018:LSD** Riccardo Tenderini, Stefano Pagani, Alfio Quarteroni, and Simone Deparis. PDE-aware deep learning for inverse problems in cardiac electrophysiology. *SIAM Journal on Scientific Computing*, 44(3):B605–B639, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1438529>.
- [TP21] John Tencer and Kevin Potter. A tailored convolutional neural network for nonlinear manifold learning of computational physics data using unstructured spatial discretizations. *SIAM Journal on Scientific Computing*, 43(4):A2581–A2613, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TPT⁺16] **Tencer:2021:TCN** R. Tuminaro, M. Perego, I. Tezaur, A. Salinger, and S. Price. A matrix dependent/algebraic multigrid approach for extruded meshes with applications to ice sheet modeling. *SIAM Journal on Scientific Computing*, 38(5):C504–C532, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Tuminaro:2016:MDA**

- [TPW09] **Trazzi:2009:ART**
Stefano Trazzi, Lorenzo Pareschi, and Bernt Wennberg. Adaptive and recursive time relaxed Monte Carlo methods for rarefied gas dynamics. *SIAM Journal on Scientific Computing*, 31(2):1379–1398, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TR93] **Tang:1993:NAS**
Dalin Tang and Samuel Rankin. Numerical and asymptotic solutions for peristaltic motion of nonlinear viscous flows with elastic free boundaries. *SIAM Journal on Scientific Computing*, 14(6):1300–1319, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tra95] **Trangenstein:1995:AMR**
John A. Trangenstein. Adaptive mesh refinement for wave propagation in nonlinear solids. *SIAM Journal on Scientific Computing*, 16(4):819–839, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tre93] **Trench:1993:NCE**
William F. Trench. A note on computing eigenvalues of banded Hermitian Toeplitz matrices. *SIAM Journal on Scientific Computing*, 14(1):248–252, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tre97] **Trench:1997:NSI**
William F. Trench. Numerical solution of the inverse eigenvalue problem for real symmetric Toeplitz matrices. *SIAM Journal on Scientific Computing*, 18(6):1722–1736, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28067>.
- [TS11] **Tang:2011:DDT**
Jok M. Tang and Yousef Saad. Domain-decomposition-type methods for computing the diagonal of a matrix inverse. *SIAM Journal on Scientific Computing*, 33(5):2823–2847, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2823_s1.
- [TS14] **Tranquilli:2014:RKM**
Paul Tranquilli and Adrian Sandu. Rosenbrock–Krylov methods for large systems of differential equations. *SIAM Journal on Scientific Computing*, 36(3):A1313–A1338, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [TSK09] **Tian:2009:CBM**
 Hongjiong Tian, Kaiting Shan, and Jiaoxun Kuang. Continuous block θ -methods for ordinary and delay differential equations. *SIAM Journal on Scientific Computing*, 31(6):4266–4280, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TSX17] **Tang:2017:FPS**
 Xiaojun Tang, Yang Shi, and Heyong Xu. Fractional pseudospectral schemes with equivalence for fractional differential equations. *SIAM Journal on Scientific Computing*, 39(3):A966–A982, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Tsy97] **Tsynkov:1997:ABC**
 S. V. Tsynkov. Artificial boundary conditions for computation of oscillating external flows. *SIAM Journal on Scientific Computing*, 18(6):1612–1656, November 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29114>.
- [Tsy99] **Tsynkov:1999:EBC**
 Semyon V. Tsynkov. External boundary conditions for three-dimensional problems of computational aerodynamics. *SIAM Journal on Scientific Computing*, 21(1):166–206, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31875>.
- [TT96a] **Tang:1996:BLR**
 Tao Tang and Manfred R. Trummer. Boundary layer resolving pseudospectral methods for singular perturbation problems. *SIAM Journal on Scientific Computing*, 17(2):430–438, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23412>.
- [TT96b] **Toh:1996:CPA**
 Kim-Chuan Toh and Lloyd N. Trefethen. Calculation of pseudospectra by the Arnoldi iteration. *SIAM Journal on Scientific Computing*, 17(1):1–15, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).
- [TT06] **Tee:2006:RSC**
 T. W. Tee and Lloyd N. Trefethen. A rational spectral collocation method with adaptively transformed Chebyshev grid points. *SIAM Journal on Scientific Computing*,

puting, 28(5):1798–1811, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tebbens:2007:EPS

[TT07]

Jurjen Duintjer Tebbens and Miroslav Tůma. Efficient preconditioning of sequences of nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 29(5):1918–1941, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Townsend:2013:ECT

[TT13]

Alex Townsend and Lloyd N. Trefethen. An extension of Chebfun to two dimensions. *SIAM Journal on Scientific Computing*, 35(6):C495–C518, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Throwe:2020:HOC

[TT20]

William Throwe and Saul Teukolsky. A high-order, conservative integrator with local time-stepping. *SIAM Journal on Scientific Computing*, 42(6):A3730–A3760, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Torun:2022:PRS

[TTMA22]

Tugba Torun, F. Sukru Torun, Murat Manguoglu, and Cevdet Aykanat. Partitioning and reordering

for spike-based distributed-memory parallel Gauss–Seidel. *SIAM Journal on Scientific Computing*, 44(2):C99–C123, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1411603>.

Tartakovsky:2008:HSR

[TTSM08]

A. M. Tartakovsky, D. M. Tartakovsky, T. D. Scheibe, and P. Meakin. Hybrid simulations of reaction-diffusion systems in porous media. *SIAM Journal on Scientific Computing*, 30(6):2799–2816, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Treister:2016:MFS

[TTY16]

Eran Treister, Javier S. Turek, and Irad Yavneh. A multilevel framework for sparse optimization with application to inverse covariance estimation and logistic regression. *SIAM Journal on Scientific Computing*, 38(5):S566–S592, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tu:2007:TLB

[Tu07]

Xuemin Tu. Three-level BDDC in three dimensions. *SIAM Journal on Scientific Computing*, 29(4):1759–1780, 2007. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Tuminaro:2010:SIC

[Tum10]

Ray Tuminaro. Special issue: 2008 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 32(1):vii, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tonn:2010:OCP

[TUV10]

Timo Tonn, Karsten Urban, and Stefan Volkwein. Optimal control of parameter-dependent convection-diffusion problems around rigid bodies. *SIAM Journal on Scientific Computing*, 32(3):1237–1260, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Trompert:1993:AIE

[TV93]

R. A. Trompert and J. G. Verwer. Analysis of the implicit Euler local uniform grid refinement method. *SIAM Journal on Scientific Computing*, 14(2):259–278, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Terlaky:1998:CML

[TV98a]

T. Terlaky and J.-Ph. Vial. Computing maximum likelihood estimators of convex density functions. *SIAM Journal on Scientific Computing*, 19(2):675–694, March

1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28657>.

Tsompanopoulou:1998:AMC

[TV98b]

P. Tsompanopoulou and E. Vavalis. ADI methods for cubic spline collocation discretizations of elliptic PDEs. *SIAM Journal on Scientific Computing*, 19(2):341–363, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28179>.

Tocino:2002:WSO

[TVA02]

A. Tocino and J. Vigo-Aguiar. Weak second order conditions for stochastic Runge–Kutta methods. *SIAM Journal on Scientific Computing*, 24(2):507–523, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38781>.

Catalyurek:2010:TDS

[tVÇAU10]

Üm t V. Çatalyürek, Cevdet Aykanat, and Bora Uçar. On two-dimensional sparse matrix partitioning: Models, methods, and a recipe. *SIAM Journal on Scientific Computing*, 32(2):656–683, 2010. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Terragni:2011:LPP

[TVV11]

Filippo Terragni, Eusebio Valero, and José M. Vega. Local POD plus Galerkin projection in the unsteady lid-driven cavity problem. *SIAM Journal on Scientific Computing*, 33(6):3538–3561, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3538_s1

[TW95]

Tveito:1995:SNH

Aslak Tveito and Ragnar Winther. The solution of non-strictly hyperbolic conservation laws may be hard to compute. *SIAM Journal on Scientific Computing*, 16(2):320–329, March 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Turkington:1996:SEC

[TW96]

Bruce Turkington and Nathaniel Whitaker. Statistical equilibrium computations of coherent structures in turbulent shear layers. *SIAM Journal on Scientific Computing*, 17(6):1414–1433, November 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/25170>.

Telen:2020:RNP

[TVV20]

Simon Telen, Marc Van Barel, and Jan Verschelde. A robust numerical path tracking algorithm for polynomial homotopy continuation. *SIAM Journal on Scientific Computing*, 42(6):A3610–A3637, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tuminaro:1993:AMF

[TW93]

Ray S. Tuminaro and David E. Womble. Analysis of the multigrid FMV cycle on large-scale parallel machines. *SIAM Journal on Scientific Computing*, 14(5):1159–1173, September 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[TW03]

Tausch:2003:MBS

Johannes Tausch and Jacob White. Multiscale bases for the sparse representation of boundary integral operators on complex geometry. *SIAM Journal on Scientific Computing*, 24(5):1610–1629, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36945>.

- [TW05] **Tang:2005:CHR**
 Huazhong Tang and Gerald Warnecke. A class of high resolution difference schemes for nonlinear Hamilton–Jacobi equations with varying time and space grids. *SIAM Journal on Scientific Computing*, 26(4):1415–1431, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42812>.
- [TW09] **Tausch:2009:MFG**
 Johannes Tausch and Alexander Weckiewicz. Multidimensional fast Gauss transforms by Chebyshev expansions. *SIAM Journal on Scientific Computing*, 31(5):3547–3565, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TW12] **Tadmor:2012:ASV**
 Eitan Tadmor and Knut Waagan. Adaptive spectral viscosity for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 34(2):A993–A1009, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TW13a] **Tanner:2013:NIH**
 Jared Tanner and Ke Wei. Normalized iterative hard thresholding for matrix completion. *SIAM Journal on Scientific Computing*, 35(5):S104–S125, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TW13b] **Tavener:2013:ABP**
 Simon Tavener and Tim Wildey. Adjoint based *A Posteriori* analysis of multi-scale mortar discretizations with multinumerics. *SIAM Journal on Scientific Computing*, 35(6):A2621–A2642, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TW17] **Toulopoulos:2017:NMP**
 Ioannis Toulopoulos and Thomas Wick. Numerical methods for power-law diffusion problems. *SIAM Journal on Scientific Computing*, 39(3):A681–A710, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TWJ+23] **Teng:2023:LSL**
 Yuankai Teng, Zhu Wang, Lili Ju, Anthony Gruber, and Guannan Zhang. Level set learning with pseudoreversible neural networks for nonlinear dimension reduction in function approximation. *SIAM Journal on Scientific Computing*, 45(3):A1148–A1171, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://>

//epubs.siam.org/doi/10.1137/21M1459198.

Tenetov:2018:FER

- [TWK18] Evgeny Tenetov, Gershon Wolansky, and Ron Kimmel. Fast entropic regularized optimal transport using semidiscrete cost approximation. *SIAM Journal on Scientific Computing*, 40(5): A3400–A3422, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Thicke:2021:CES

- [TWL21] Kyle Thicke, Alexander B. Watson, and Jianfeng Lu. Computing edge states without hard truncation. *SIAM Journal on Scientific Computing*, 43(2):B323–B353, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Townsend:2016:CFS

- [TWW16] Alex Townsend, Heather Wilber, and Grady B. Wright. Computing with functions in spherical and polar geometries I. The sphere. *SIAM Journal on Scientific Computing*, 38(4):C403–C425, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tang:2020:RSM

- [TWCYZ20] Tao Tang, Li-Lian Wang, Huifang Yuan, and Tao Zhou.

Rational spectral methods for PDEs involving fractional Laplacian in unbounded domains. *SIAM Journal on Scientific Computing*, 42(2): A585–A611, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tang:2021:AFC

- [TZW21] Min Tang, Li Wang, and Xiaojiang Zhang. Accurate front capturing asymptotic preserving scheme for nonlinear Gray radiative transfer equation. *SIAM Journal on Scientific Computing*, 43(3): B759–B783, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tang:2017:LMM

- [TX17] Shibing Tang and Xuejun Xu. Local multilevel methods with rectangular finite elements for the biharmonic problem. *SIAM Journal on Scientific Computing*, 39(6): A2592–A2615, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Tang:2022:SAN

- [TXZZ22] Qinglin Tang, Manting Xie, Yong Zhang, and Yuqing Zhang. A spectrally accurate numerical method for computing the Bogoliubov–de Gennes excitations of dipolar Bose–Einstein con-

- densates. *SIAM Journal on Scientific Computing*, 44(1):B100–B121, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1401048>.
- [TY00] Dalin Tang and Jun Yang. A free moving boundary model and boundary iteration method for unsteady viscous flow in stenotic elastic tubes. *SIAM Journal on Scientific Computing*, 21(4):1370–1386, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31568>. **Tang:2000:FMB** [TY15]
- [TY08] Tomoya Takeuchi and Masahiro Yamamoto. Tikhonov regularization by a reproducing kernel Hilbert space for the Cauchy problem for an elliptic equation. *SIAM Journal on Scientific Computing*, 31(1):112–142, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Takeuchi:2008:TRR** [TYUC19]
- [TY11] Eran Treister and Irad Yavneh. On-the-fly adaptive smoothed aggregation multigrid for Markov chains. *SIAM Journal on Scientific Computing*, 33(5):2927–2949, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2927_s1. **Treister:2015:NGM**
- Eran Treister and Irad Yavneh. Non-Galerkin multigrid based on sparsified smoothed aggregation. *SIAM Journal on Scientific Computing*, 37(1):A30–A54, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Treister:2015:NGM**
- Joel A. Tropp, Alp Yurtsever, Madeleine Udell, and Volkan Cevher. Streaming low-rank matrix approximation with an application to scientific simulation. *SIAM Journal on Scientific Computing*, 41(4):A2430–A2463, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Tropp:2019:SLR**
- Tao Tang, Haijun Yu, and Tao Zhou. On energy dissipation theory and numerical stability for time-fractional phase-field equations. *SIAM Journal on Scientific Computing*, 41(6):A3757–A3778, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Tang:2019:EDT** [TYZ19]

- [TZ95] **Taasan:1995:MWR**
Shlomo Ta'asan and Hong Zhang. On the multigrid waveform relaxation method. *SIAM Journal on Scientific Computing*, 16(5):1092–1104, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [TZ14] **Tang:2014:DLS**
Tao Tang and Tao Zhou. On discrete least-squares projection in unbounded domain with random evaluations and its application to parametric uncertainty quantification. *SIAM Journal on Scientific Computing*, 36(5):A2272–A2295, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [UA07]
- [TZ18] **Tchrakian:2018:FDD**
Tigran T. Tchrakian and Sergiy Zhuk. A fast distributed data-assimilation algorithm for divergence-free advection. *SIAM Journal on Scientific Computing*, 40(5):A3038–A3066, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [UDH23]
- [UA04] **Ucar:2004:EMC**
Bora Uçar and Cevdet Aykanat. Encapsulating multiple communication-cost metrics in partitioning sparse rectangular matrices for parallel matrix-vector multiplies. *SIAM Journal on Scientific Computing*, 25(6):1837–1859, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41046>.
- Ucar:2007:PSM**
Bora Uçar and Cevdet Aykanat. Partitioning sparse matrices for parallel preconditioned iterative methods. *SIAM Journal on Scientific Computing*, 29(4):1683–1709, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Uribe:2023:HPE**
Felipe Uribe, Yiqiu Dong, and Per Christian Hansen. Horseshoe priors for edge-preserving linear Bayesian inversion. *SIAM Journal on Scientific Computing*, 45(3):B337–B365, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1510364>.
- [UEE12] **Ullmann:2012:EIS**
Elisabeth Ullmann, Howard C. Elman, and Oliver G. Ernst. Efficient iterative solvers for stochastic Galerkin discretizations of log-transformed random diffusion problems.

- [UW94] *SIAM Journal on Scientific Computing*, 34(2):A659–A682, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [UG19] Wayne Isaac T. Uy and Mircea Grigoriu. Specification of additional information for solving stochastic inverse problems. *SIAM Journal on Scientific Computing*, 41(5):A2880–A2910, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ull10] Elisabeth Ullmann. A Kronecker product preconditioner for stochastic Galerkin finite element discretizations. *SIAM Journal on Scientific Computing*, 32(2):923–946, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Ush01] Olga V. Ushakova. Conditions of nondegeneracy of three-dimensional cells. A formula of a volume of cells. *SIAM Journal on Scientific Computing*, 23(4):1274–1290, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38070>.
- [Ulrich:1994:PCQ] Gary Ulrich and Layne T. Watson. Positivity conditions for quartic polynomials. *SIAM Journal on Scientific Computing*, 15(3):528–544, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [UWWP23] Wayne Isaac Tan Uy, Yuepeng Wang, Yuxiao Wen, and Benjamin Peherstorfer. Active operator inference for learning low-dimensional dynamical system models from noisy data. *SIAM Journal on Scientific Computing*, 45(4):A1462–A1490, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1439729>.
- [UWY+15] Michael Ulbrich, Zaiwen Wen, Chao Yang, Dennis Klöckner, and Zhaosong Lu. A proximal gradient method for ensemble density functional theory. *SIAM Journal on Scientific Computing*, 37(4):A1975–A2002, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Van95] Erik S. Van Vleck. Numerical shadowing near hyperbolic

- trajectories. *SIAM Journal on Scientific Computing*, 16(5):1177–1189, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Vas07]
- [Van00] Erik S. Van Vleck. Numerical shadowing using componentwise bounds and a sharper fixed point result. *SIAM Journal on Scientific Computing*, 22(3):787–801, May 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35345>. [Vas10]
- [Van20] Field G. Van Zee. Implementing high-performance complex matrix multiplication via the 1M method. *SIAM Journal on Scientific Computing*, 42(5):C221–C244, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VB07]
- [Vas05] Panayot Vassilevski. 2004 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 27(5):ix–x, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_97419.html. [VBA18]
- Vassilevski:2007:CMS**
Panayot S. Vassilevski. Copper Mountain special issue on iterative methods. *SIAM Journal on Scientific Computing*, 29(5):ix–x, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vassilevski:2010:GCE**
Panayot S. Vassilevski. General constrained energy minimization interpolation mappings for AMG. *SIAM Journal on Scientific Computing*, 32(1):1–13, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Veerapaneni:2007:HOS**
Shravan K. Veerapaneni and George Biros. A high-order solver for the heat equation in 1D domains with moving boundaries. *SIAM Journal on Scientific Computing*, 29(6):2581–2606, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vakilzadeh:2018:UAB**
Majid K. Vakilzadeh, James L. Beck, and Thomas Abrahamsson. Using approximate Bayesian computation by subset simulation for efficient posterior assessment of dynamic state-space model classes. *SIAM Journal on*

Scientific Computing, 40(1): B168–B195, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

vanBrummelen:2005:NSF

- [vBdB05] E. H. van Brummelen and R. de Borst. On the non-normality of subiteration for a fluid-structure-interaction problem. *SIAM Journal on Scientific Computing*, 27(2):599–621, March 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43143>. [vd97]

Vanek:1999:TGM

- [VBT99] Petr Vanek, Marian Brezina, and Radek Tezaur. Two-grid method for linear elasticity on unstructured meshes. *SIAM Journal on Scientific Computing*, 21(3):900–923, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29711>. [vD03]

VanDaele:2000:SDC

- [VC00] Marnix Van Daele and Jeff R. Cash. Superconvergent deferred correction methods for first order systems of nonlinear two-point boundary value problems. *SIAM Journal on Scientific Computing*, 22(5): 1697–1716, September 2000. [VD10]

CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/36200>.

vanderHouwen:1997:TII

- P. J. van der Houwen and J. J. B. de Swart. Triangularly implicit iteration methods for ODE-IVP solvers. *SIAM Journal on Scientific Computing*, 18(1):41–55, January 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28745>. Dedicated to C. William Gear on the occasion of his 60th birthday.

vanDorsselaer:2003:SCI

- Jos L. M. van Dorsselaer. Several concepts to investigate strongly nonnormal eigenvalue problems. *SIAM Journal on Scientific Computing*, 24(3):1031–1053, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38274>.

Vandebril:2010:IMA

- Raf Vandebril and Gianna M. Del Corso. An implicit multishift *QR*-algorithm for Hermitian plus low rank matrices. *SIAM Journal on Scien-*

tific Computing, 32(4):2190–2212, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Vermeersch:2023:RAU

[VD23]

Christof Vermeersch and Bart De Moor. Recursive algorithms to update a numerical basis matrix of the null space of the block row, (banded) block Toeplitz, and block Macaulay matrix. *SIAM Journal on Scientific Computing*, 45(2):A596–A620, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1495858>.

vandenBerg:2008:PPF

[vdBF08]

Ewout van den Berg and Michael P. Friedlander. Probing the Pareto frontier for basis pursuit solutions. *SIAM Journal on Scientific Computing*, 31(2):890–912, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Vervliet:2019:EER

[VDD19]

Nico Vervliet, Otto Debals, and Lieven De Lathauwer. Exploiting efficient representations in large-scale tensor decompositions. *SIAM Journal on Scientific Computing*, 41(2):A789–A815, 2019. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

vandenDoel:2012:ASA

[vdDA12]

Kees van den Doel and Uri M. Ascher. Adaptive and stochastic algorithms for electrical impedance tomography and DC resistivity problems with piecewise constant solutions and many measurements. *SIAM Journal on Scientific Computing*, 34(1):A185–A205, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA185_s1

vandenEshof:2005:PLA

[vdEH05]

Jasper van den Eshof and Marlis Hochbruck. Preconditioning Lanczos approximations to the matrix exponential. *SIAM Journal on Scientific Computing*, 27(4):1438–1457, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60546.html.

vanderHerten:2015:FHS

[vdHCDD15]

J. van der Herten, I. Couckuyt, D. Deschrijver, and T. Dhaene. A fuzzy hybrid sequential design strategy for global surrogate modeling of high-dimensional computer experiments. *SIAM Journal on Scientific Computing*, 37

- (2):A1020–A1039, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [vdSF21] **vanderSande:2021:FVD** Kiera van der Sande and Bengt Fornberg. Fast variable density 3-D node generation. *SIAM Journal on Scientific Computing*, 43(1):A242–A257, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [vdV01] **vanderVorst:2001:CMC** Henk van der Vorst. 2000 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 23(2):vii, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97414>.
- [vdVDE+02] **vanderVorst:2002:CMC** Henk van der Vorst, Iain Duff, Howard Elman, Ronal Freund, Tim Kelley, Seymour Parter, Gerhard Starke, Nick Trefethen, Panayot Vassilevski, Homer Walker, and Olof Widlund. 2000 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 23(2):vii, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97414>.
- [vdVDE+03] **vanderVorst:2003:CMC** Henk van der Vorst, Iain Duff, Howard Elman, Ronal Freund, Tim Kelley, Seymour Parter, Gerhard Starke, Nick Trefethen, Panayot Vassilevski, Homer Walker, and Olof Widlund. 2002 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 25(2):vii, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/97415>.
- [vdVXX19] **vanderVegt:2019:PPL** J. J. W. van der Vegt, Yinhua Xia, and Yan Xu. Positivity preserving limiters for time-implicit higher order accurate discontinuous Galerkin discretizations. *SIAM Journal on Scientific Computing*, 41(3):A2037–A2063, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [vdVY00] **vanderVorst:2000:RRS** Henk A. van der Vorst and Qiang Ye. Residual replacement strategies for Krylov subspace iterative methods for the convergence of true residuals. *SIAM Journal on Scientific Computing*, 22(3):835–852, May 2000. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35386>. [Ver96]
- vanderZee:2010:GOEa**
- [vdZvBdB10a] K. G. van der Zee, E. H. van Brummelen, and R. de Borst. Goal-oriented error estimation and adaptivity for free-boundary problems: The domain-map linearization approach. *SIAM Journal on Scientific Computing*, 32(2):1064–1092, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VFGS23]
- vanderZee:2010:GOEb**
- [vdZvBdB10b] K. G. van der Zee, E. H. van Brummelen, and R. de Borst. Goal-oriented error estimation and adaptivity for free-boundary problems: The shape-linearization approach. *SIAM Journal on Scientific Computing*, 32(2):1093–1118, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [vGEV07]
- Verwer:1994:GSI**
- [Ver94] J. G. Verwer. Gauss–Seidel iteration for stiff ODEs from chemical kinetics. *SIAM Journal on Scientific Computing*, 15(5):1243–1250, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VGOR20]
- Verkama:1996:RRF**
- Markku Verkama. Random relaxation of fixed-point iteration. *SIAM Journal on Scientific Computing*, 17(4):906–912, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vargas:2023:MRT**
- D. A. Vargas, R. D. Falgout, S. Günther, and J. B. Schroder. Multigrid reduction in time for chaotic dynamical systems. *SIAM Journal on Scientific Computing*, 45(4):A2019–A2042, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1518335>.
- vanGijzen:2007:SAD**
- M. B. van Gijzen, Y. A. Erlangga, and C. Vuik. Spectral analysis of the discrete Helmholtz operator preconditioned with a shifted Laplacian. *SIAM Journal on Scientific Computing*, 29(5):1942–1958, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vico:2020:FBI**
- Felipe Vico, Leslie Greengard, Michael O’Neil, and Manas Rachh. A fast boundary integral method for high-

- order multiscale mesh generation. *SIAM Journal on Scientific Computing*, 42(2): A1380–A1401, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Vil09]
- vanHinsberg:2012:EAI**
- [vHBTC12] M. A. T. van Hinsberg, J. H. M. Thije Boonkamp, F. Toschi, and H. J. H. Clercx. On the efficiency and accuracy of interpolation methods for spectral codes. *SIAM Journal on Scientific Computing*, 34(4): B479–B498, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Vil14]
- VanderZee:2010:WCT**
- [VHGR10] Evan VanderZee, Anil N. Hirani, Damrong Guoy, and Edgar A. Ramos. Well-centered triangulation. *SIAM Journal on Scientific Computing*, 31(6):4497–4523, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Vil15]
- Valentin:2020:GBT**
- [VHSP20] Julian Valentin, Daniel Hübner, Michael Stingl, and Dirk Pflüger. Gradient-based two-scale topology optimization with B-splines on sparse grids. *SIAM Journal on Scientific Computing*, 42(4): B1092–B1114, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Vir07]
- Villa:2009:CWI**
- Andrea Villa. Convergence of weakly imposed boundary conditions: The one-dimensional hyperbolic case. *SIAM Journal on Scientific Computing*, 31(4):3116–3127, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vilmart:2014:WSO**
- Gilles Vilmart. Weak second order multirevolution composition methods for highly oscillatory stochastic differential equations with additive or multiplicative noise. *SIAM Journal on Scientific Computing*, 36(4):A1770–A1796, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vilmart:2015:PIH**
- Gilles Vilmart. Postprocessed integrators for the high order integration of ergodic SDEs. *SIAM Journal on Scientific Computing*, 37(1): A201–A220, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Virnik:2007:AMP**
- Elena Virnik. An algebraic multigrid preconditioner for a class of singular M -matrices. *SIAM Journal on Scientific*

- Computing*, 29(5):1982–1991, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [vLA21]
- [VK13] Eugene Vecharynski and Andrew V. Knyazev. Absolute value preconditioning for symmetric indefinite linear systems. *SIAM Journal on Scientific Computing*, 35(2):A696–A718, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [vLH14]
- [VK15] Eugene Vecharynski and Andrew Knyazev. Preconditioned locally harmonic residual method for computing interior eigenpairs of certain classes of Hermitian matrices. *SIAM Journal on Scientific Computing*, 37(5):S3–S29, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [vLHH21]
- [VL10] E. Vecharynski and J. Langou. The cycle-convergence of restarted GMRES for normal matrices is sublinear. *SIAM Journal on Scientific Computing*, 32(1):186–196, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VLM22]
- vanLeeuwen:2021:VPN**
- Tristan van Leeuwen and Aleksandr Y. Aravkin. Variable projection for NonSmooth problems. *SIAM Journal on Scientific Computing*, 43(5):S249–S268, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- vanLeeuwen:2014:FDS**
- Tristan van Leeuwen and Felix J. Herrmann. 3d frequency-domain seismic inversion with controlled sloppiness. *SIAM Journal on Scientific Computing*, 36(5):S192–S217, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- vanLith:2021:TEG**
- Bart S. van Lith, Per Christian Hansen, and Michiel E. Hochstenbach. A twin error gauge for Kaczmarz’s iterations. *SIAM Journal on Scientific Computing*, 43(5):S173–S199, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vogt:2022:MIP**
- Ryan H. Vogt, Sven Leyffer, and Todd S. Munson. A mixed-integer PDE-constrained optimization formulation for electromagnetic cloaking. *SIAM Journal*

on *Scientific Computing*, 44(1):B29–B50, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1315993>.

Vannieuwenhoven:2013:IIM

[VM13]

Nick Vannieuwenhoven and Karl Meerbergen. IMF: an incomplete multifrontal LU -factorization for element-structured sparse linear systems. *SIAM Journal on Scientific Computing*, 35(1):A270–A293, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Vdovina:2009:TSS

[VMG09]

Tetyana Vdovina, Susan E. Minkoff, and Sean M. L. Griffith. A two-scale solution algorithm for the elastic wave equation. *SIAM Journal on Scientific Computing*, 31(5):3356–3386, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

VanBeeumen:2013:RKM

[VMM13]

Roel Van Beeumen, Karl Meerbergen, and Wim Michiels. A rational Krylov method based on Hermite interpolation for nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 35(1):A327–A350, 2013. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Vannieuwenhoven:2015:CGO

[VMV15]

Nick Vannieuwenhoven, Karl Meerbergen, and Raf Vandebril. Computing the gradient in optimization algorithms for the CP decomposition in constant memory through tensor blocking. *SIAM Journal on Scientific Computing*, 37(3):C415–C438, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Valougeorgis:2003:ASD

[VN03]

D. Valougeorgis and S. Naris. Acceleration schemes of the discrete velocity method: Gaseous flows in rectangular microchannels. *SIAM Journal on Scientific Computing*, 25(2):534–552, March 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40650>.

vanNoorden:2004:BRU

[vNLB04]

T. L. van Noorden, S. M. Verduyn Lunel, and A. Blik. A Broyden rank $p + 1$ update continuation method with subspace iteration. *SIAM Journal on Scientific Computing*, 25(6):1921–1940, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39998>. [von97]
- [VO96] **Vogel:1996:IMT**
C. R. Vogel and M. E. Oman. Iterative methods for total variation denoising. *SIAM Journal on Scientific Computing*, 17(1):227–238, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994). [VP10]
- [VO19] **Viertel:2019:AQM**
Ryan Viertel and Braxton Osting. An approach to quad meshing based on harmonic cross-valued maps and the Ginzburg–Landau theory. *SIAM Journal on Scientific Computing*, 41(1):A452–A479, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VP11]
- [Vog16] **Vogl:2016:CAR**
Chris J. Vogl. A curvature-augmented, REA approach to the level set method. *SIAM Journal on Scientific Computing*, 38(2):A833–A855, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VP14]
- vonMatt:1997:OA**
Urs von Matt. The orthogonal qd -algorithm. *SIAM Journal on Scientific Computing*, 18(4):1163–1186, July 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27488>.
- Vallaghe:2010:TIF**
Sylvain Vallaghé and Théodore Papadopoulo. A trilinear immersed finite element method for solving the electroencephalography forward problem. *SIAM Journal on Scientific Computing*, 32(4):2379–2394, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vomel:2011:DLI**
Christof Vömel and Beresford N. Parlett. Detecting localization in an invariant subspace. *SIAM Journal on Scientific Computing*, 33(6):3447–3467, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3447_s1.
- Vallaghe:2014:SCR**
Sylvain Vallaghé and Anthony T. Patera. The static condensation reduced basis element method for a mixed-

- mean conjugate heat exchanger model. *SIAM Journal on Scientific Computing*, 36(3):B294–B320, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VS03]
- [VPP05] Darko Volkov, Demetrios T. Papageorgiou, and Peter G. Petropoulos. Accurate and efficient boundary integral methods for electrified liquid bridge problems. *SIAM Journal on Scientific Computing*, 26(6):2102–2132, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60435>. [VS04]
- [VR14] B. Vioreanu and V. Rokhlin. Spectra of multiplication operators as a numerical tool. *SIAM Journal on Scientific Computing*, 36(1):A267–A288, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [VR16] M. J. Vuik and J. K. Ryan. Automated parameters for troubled-cell indicators using outlier detection. *SIAM Journal on Scientific Computing*, 38(1):A84–A104, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Vukovic:2003:USE] Senka Vukovic and Luka Sopta. Upwind schemes with exact conservation property for one-dimensional open channel flow equations. *SIAM Journal on Scientific Computing*, 24(5):1630–1649, September 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39221>.
- [Verwer:2004:IER] J. G. Verwer and B. P. Sommeijer. An implicit-explicit Runge–Kutta–Chebyshev scheme for diffusion-reaction equations. *SIAM Journal on Scientific Computing*, 25(5):1824–1835, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42916>.
- [Veit:2017:UTT] Alexander Veit and L. Ridgway Scott. Using the tensor-train approach to solve the ground-state eigenproblem for hydrogen molecules. *SIAM Journal on Scientific Computing*, 39(1):B190–B220, 2017. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Vandecasteele:2023:MMM

[VS23]

Hannes S. Vandecasteele and Giovanni Samaey. A micro-macro Markov Chain Monte Carlo method for molecular dynamics using reaction coordinate proposals. *SIAM Journal on Scientific Computing*, 45(2):B107–B138, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1322443>.

Verwer:1999:SOR

[VSBH99]

J. G. Verwer, E. J. Spee, J. G. Blom, and W. Hundsdorfer. A second-order Rosenbrock method applied to photochemical dispersion problems. *SIAM Journal on Scientific Computing*, 20(4):1456–1480, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32665>.

vanSlingerland:2011:PDS

[vSRV11]

Paulien van Slingerland, Jennifer K. Ryan, and C. Vuik. Position-dependent Smoothness-Increasing Accuracy-Conserving (SIAC) filtering for improving discontinuous Galerkin solutions. *SIAM Journal on Scientific Computing*, 33(2):802–

825, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i2/p802_s1.

Vecharynski:2014:GPU

[VSS14]

Eugene Vecharynski, Yousef Saad, and Masha Sosonkina. Graph partitioning using matrix values for preconditioning symmetric positive definite systems. *SIAM Journal on Scientific Computing*, 36(1):A63–A87, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Vomel:2012:DCH

[VTD12]

Christof Vömel, Stanimire Tomov, and Jack Dongarra. Divide and conquer on hybrid GPU-accelerated multi-core systems. *SIAM Journal on Scientific Computing*, 34(2):C70–C82, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

VanLent:2005:MMI

[VV05]

Jan Van Lent and Stefan Vandewalle. Multigrid methods for implicit Runge–Kutta and boundary value method discretizations of parabolic PDEs. *SIAM Journal on Scientific Computing*, 27(1):67–92, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60114>. [VW94]
- Vassilevski:2013:BDA**
- [VV13] Panayot S. Vassilevski and Umberto Villa. A block-diagonal algebraic multigrid preconditioner for the Brinkman problem. *SIAM Journal on Scientific Computing*, 35(5):S3–S17, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- vanVeen:2011:MFC**
- [vVKA11] Lennaert van Veen, Genta Kawahara, and Matsumura Atsushi. On matrix-free computation of 2D unstable manifolds. *SIAM Journal on Scientific Computing*, 33(1):25–44, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p25_s1.
- Vannieuwenhoven:2012:NTS**
- [VVM12] Nick Vannieuwenhoven, Raf Vandebril, and Karl Meerbergen. A new truncation strategy for the higher-order singular value decomposition. *SIAM Journal on Scientific Computing*, 34(2):A1027–A1052, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [VXCB16]
- Vogel:1994:ISB**
- C. R. Vogel and J. G. Wade. Iterative SVD-based methods for ill-posed problems. *SIAM Journal on Scientific Computing*, 15(3):736–754, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).
- Vassilevski:1998:SHB**
- Panayot S. Vassilevski and Junping Wang. Stabilizing the hierarchical basis by approximate wavelets II: Implementation and numerical results. *SIAM Journal on Scientific Computing*, 20(2):490–514, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30066>.
- vonWinckel:2009:GNM**
- [vWBV09] G. von Winckel, A. Borzì, and S. Volkwein. A globalized Newton method for the accurate solution of a dipole quantum control problem. *SIAM Journal on Scientific Computing*, 31(6):4176–4203, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Vogel:2016:SDC**
- James Vogel, Jianlin Xia, Stephen Cauley, and Venkatara-

- manan Balakrishnan. Superfast divide-and-conquer method and perturbation analysis for structured eigenvalue solutions. *SIAM Journal on Scientific Computing*, 38(3):A1358–A1382, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [VY09] Danail Vassilev and Ivan Yotov. Coupling Stokes–Darcy flow with transport. *SIAM Journal on Scientific Computing*, 31(5):3661–3684, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [VYX16] Eugene Vecharynski, Chao Yang, and Fei Xue. Generalized preconditioned locally harmonic residual method for non-Hermitian eigenproblems. *SIAM Journal on Scientific Computing*, 38(1):A500–A527, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [VZA⁺23] Sachin Krishnan Thekke Veettil, Gentian Zavalani, Uwe Hernandez Acosta, Ivo F. Sbalzarini, and Michael Hecht. Global polynomial level sets for numerical differential geometry of smooth closed surfaces. *SIAM Journal on Scientific Computing*, 45(4):A1995–A2018, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1536510>.
- [Wab05] Markus Wabro. AMGe—coarsening strategies and application to the Oseen equations. *SIAM Journal on Scientific Computing*, 27(6):2077–2097, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_61035.html.
- [Wal99] Homer F. Walker. An adaptation of Krylov subspace methods to path following problems. *SIAM Journal on Scientific Computing*, 21(3):1191–1198, May 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31537>.
- [Wal13] Shawn W. Walker. Tetrahedralization of isosurfaces with guaranteed-quality by edge rearrangement (TIGER). *SIAM Journal on Scientific Computing*, 35(1):A294–A326, ??? 2013. CO-

- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wan01]
- Walker:2014:SUP**
- [Wal14] Stephen G. Walker. Sampling unnormalized probabilities: an alternative to the Metropolis–Hastings algorithm. *SIAM Journal on Scientific Computing*, 36(2): A482–A494, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Walker:2018:FMC**
- [Wal18] Shawn W. Walker. FELICITY: a Matlab/C++ toolbox for developing finite element methods and simulation modeling. *SIAM Journal on Scientific Computing*, 40(2): C234–C257, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wan07a]
- Wang:1997:RNN**
- [Wan97] Jun Wang. Recurrent neural networks for computing pseudoinverses of rank-deficient matrices. *SIAM Journal on Scientific Computing*, 18(5): 1479–1493, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26716>. [Wan07b]
- Wang:2001:SBQ**
- Weigang Wang. Special bilinear quadrilateral elements for locally refined finite element grids. *SIAM Journal on Scientific Computing*, 22(6): 2029–2050, November 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35891>.
- Wang:2004:JCC**
- [Wan04] Wei-Cheng Wang. A jump condition capturing finite difference scheme for elliptic interface problems. *SIAM Journal on Scientific Computing*, 25(5):1479–1496, September 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40598>.
- Wang:2007:TCI**
- [Wan07a] Quan-Fang Wang. Theoretical and computational issues of optimal control for distributed Hopfield neural network equations with diffusion term. *SIAM Journal on Scientific Computing*, 29(2): 890–911, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:2007:CRG**
- [Wan07b] Xiaoqun Wang. Constructing robust good lattice rules for

- computational finance. *SIAM Journal on Scientific Computing*, 29(2):598–621, ??? 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [War13]
- Wang:2012:EQM**
- [Wan12] Xiaogun Wang. Enhancing quasi-Monte Carlo methods by exploiting additive approximation for problems in finance. *SIAM Journal on Scientific Computing*, 34(1):A283–A308, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA283_s1 [WAS94]
- Wang:2013:ESAA**
- [Wan13] Ning Wang. An efficient search algorithm for minimum covering polygons on the sphere. *SIAM Journal on Scientific Computing*, 35(3):A1669–A1688, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wat94]
- Wang:2022:EUS**
- [Wan22] Dong Wang. An efficient unconditionally stable method for Dirichlet partitions in arbitrary domains. *SIAM Journal on Scientific Computing*, 44(4):A2061–A2088, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1443406>. [Warburton:2013:LSC]
- T. Warburton. A low-storage curvilinear discontinuous Galerkin method for wave problems. *SIAM Journal on Scientific Computing*, 35(4):A1987–A2012, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wu:1994:RWH**
- W. Wu, P. J. Aston, and A. Spence. Rotating waves from Hopf bifurcations in equations with $O(2)$ -symmetry. *SIAM Journal on Scientific Computing*, 15(3):495–510, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Watkins:1994:SSP**
- David S. Watkins. Shifting strategies for the parallel QR algorithm. *SIAM Journal on Scientific Computing*, 15(4):953–958, July 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Watson:1998:CLQ**
- [Wat98] G. A. Watson. On computing the least quantile of squares estimate. *SIAM Journal on Scientific Computing*, 19(4):1125–1138, July 1998. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28376>.
- [Wat04] **Watson:2004:RSG** G. A. Watson. Robust solutions to a general class of approximation problems. *SIAM Journal on Scientific Computing*, 25(4):1448–1460, July 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41249>.
- [WB99] **Wilders:1999:SSA** P. Wilders and E. Brakkee. Schwarz and Schur: an algebraical note on equivalence properties. *SIAM Journal on Scientific Computing*, 20(6):2297–2303, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30523>.
- [WB00] **Warming:2000:DMA** Robert F. Warming and Richard M. Beam. Discrete multiresolution analysis using Hermite interpolation: Biorthogonal multiwavelets. *SIAM Journal on Scientific Computing*, 22(4):1269–1317, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31523>.
- [WB08a] **Wadbro:2008:MTU** Eddie Wadbro and Martin Berggren. Microwave tomography using topology optimization techniques. *SIAM Journal on Scientific Computing*, 30(3):1613–1633, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WB08b] **Witteveen:2008:MCA** Jeroen A. S. Witteveen and Hester Bijl. A monomial chaos approach for efficient uncertainty quantification in nonlinear problems. *SIAM Journal on Scientific Computing*, 30(3):1296–1317, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WB12] **Wang:2012:FFD** Hong Wang and Treena S. Basu. A fast finite difference method for two-dimensional space-fractional diffusion equations. *SIAM Journal on Scientific Computing*, 34(5):A2444–A2458, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WBFA09] **Weiss:2009:EST** Pierre Weiss, Laure Blanc-Féraud, and Gilles Aubert. Efficient schemes for total variation minimization under

- constraints in image processing. *SIAM Journal on Scientific Computing*, 31(3):2047–2080, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WBS⁺17] Zheng Wang, Johnathan M. Bardsley, Antti Solonen, Tiangang Cui, and Youssef M. Marzouk. Bayesian inverse problems with l_1 priors: a randomize-then-optimize approach. *SIAM Journal on Scientific Computing*, 39(5):S140–S166, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WBTG18] Kainan Wang, Tan Bui-Thanh, and Omar Ghattas. A randomized maximum a posteriori method for posterior sampling of high dimensional nonlinear Bayesian inverse problems. *SIAM Journal on Scientific Computing*, 40(1):A142–A171, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WC00] C. Walshaw and M. Cross. Mesh partitioning: a multilevel balancing and refinement algorithm. *SIAM Journal on Scientific Computing*, 22(1):63–80, January 2000.
- [WC03] **Wang:2017:BIP** Zheng Wang, Johnathan M. Bardsley, Antti Solonen, Tiangang Cui, and Youssef M. Marzouk. Bayesian inverse problems with l_1 priors: a randomize-then-optimize approach. *SIAM Journal on Scientific Computing*, 39(5):S140–S166, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WC17] **Wang:2018:RMP** Kainan Wang, Tan Bui-Thanh, and Omar Ghattas. A randomized maximum a posteriori method for posterior sampling of high dimensional nonlinear Bayesian inverse problems. *SIAM Journal on Scientific Computing*, 40(1):A142–A171, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WC22] **Walshaw:2000:MPM** C. Walshaw and M. Cross. Mesh partitioning: a multilevel balancing and refinement algorithm. *SIAM Journal on Scientific Computing*, 22(1):63–80, January 2000.
- Wan:2003:PEA** W. L. Wan and Tony F. Chan. A phase error analysis of multigrid methods for hyperbolic equations. *SIAM Journal on Scientific Computing*, 25(3):857–880, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33737>.
- Wu:2017:PIA** Shu-Lin Wu and Xiaojun Chen. A parallel iterative algorithm for differential linear complementarity problems. *SIAM Journal on Scientific Computing*, 39(6):A3040–A3066, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:2022:DEB** Geshuo Wang and Zhenning Cai. Differential equation based path integral for open quantum systems. *SIAM Journal on Scientific Computing*, 44(3):B771–B804, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL

<https://epubs.siam.org/doi/10.1137/21M1439833>.

Wang:2023:STS

[WC23]

Xiaozhou Wang and Xiaojun Chen. Solving two-stage stochastic variational inequalities by a hybrid projection semismooth Newton algorithm. *SIAM Journal on Scientific Computing*, 45(4):A1741–A1765, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1475302>.

Wu:2023:OOD

[WCG23]

Keyi Wu, Peng Chen, and Omar Ghattas. An offline-online decomposition method for efficient linear Bayesian goal-oriented optimal experimental design: Application to optimal sensor placement. *SIAM Journal on Scientific Computing*, 45(1):B57–B77, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1466542>.

Wei:2014:AMR

[WCHZ14]

Huayi Wei, Long Chen, Yunqing Huang, and Bin Zheng. Adaptive mesh refinement and superconvergence for two-dimensional interface problems. *SIAM Journal on Scientific Computing*, 36(4):A1478–A1499, 2014. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Wang:2021:PEE

[WCL+21]

Yangshuai Wang, Huajie Chen, Mingjie Liao, Christoph Ortner, Hao Wang, and Lei Zhang. A posteriori error estimates for adaptive QM/MM coupling methods. *SIAM Journal on Scientific Computing*, 43(4):A2785–A2808, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wan:2000:EMI

[WCS00]

W. L. Wan, Tony F. Chan, and Barry Smith. An energy-minimizing interpolation for robust multigrid methods. *SIAM Journal on Scientific Computing*, 21(4):1632–1649, July 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33427>.

Wang:1999:ESA

[WDE⁺99]

Hong Wang, Helge K. Dahle, Richard E. Ewing, Magne S. Espedal, Robert C. Sharpley, and Shushuang Man. An EL-LAM scheme for advection-diffusion equations in two dimensions. *SIAM Journal on Scientific Computing*, 20(6):2160–2194, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

/epubs.siam.org/sam-bin/dbq/article/30939.

Wang:2018:HCW

[WDG+18]

B. S. Wang, W. S. Don, Z. Gao, Y. H. Wang, and X. Wen. Hybrid compact-WENO finite difference scheme with radial basis function based shock detection method for hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 40(6):A3699–A3714, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[WE06]

tronic). URL <https://epubs.siam.org/doi/10.1137/21M1420277>.

Wu:2006:ACG

Chin-Tien Wu and Howard C. Elman. Analysis and comparison of geometric and algebraic multigrid for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 28(6):2208–2228, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2013:PEO

[WDGK20]

Bao-Shan Wang, Wai Sun Don, Naveen K. Garg, and Alexander Kurganov. Fifth-order A-WENO finite-difference schemes based on a new adaptive diffusion central numerical flux. *SIAM Journal on Scientific Computing*, 42(6):A3932–A3956, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[WE13]

Bo Wang and Wayne Enright. Parameter estimation for ODEs using a cross-entropy approach. *SIAM Journal on Scientific Computing*, 35(6):A2718–A2737, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Weiss:1994:EMK

[WDT22]

Heather Wilber, Anil Damle, and Alex Townsend. Data-driven algorithms for signal processing with trigonometric rational functions. *SIAM Journal on Scientific Computing*, 44(3):C185–C209, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-

[Wei94]

Rüdiger Weiss. Error-minimizing Krylov subspace methods. *SIAM Journal on Scientific Computing*, 15(3):511–527, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Weideman:1999:APS

[Wei99]

J. A. C. Weideman. Algorithms for parameter selection in the Weeks method for inverting the Laplace

- transform. *SIAM Journal on Scientific Computing*, 21(1):111–128, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31243>. [Wen10]
- Welper:2017:IFP**
- [Wel17] G. Welper. Interpolation of functions with parameter dependent jumps by transformed snapshots. *SIAM Journal on Scientific Computing*, 39(4):A1225–A1250, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WFAP15]
- Welper:2020:TSI**
- [Wel20] G. Welper. Transformed snapshot interpolation with high resolution transforms. *SIAM Journal on Scientific Computing*, 42(4):A2037–A2061, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WFG⁺20]
- Wen:2008:HON**
- [Wen08] Xin Wen. High order numerical quadratures to one dimensional delta function integrals. *SIAM Journal on Scientific Computing*, 30(4):1825–1846, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WG00]
- Wen:2010:HON**
- Xin Wen. High order numerical methods to three dimensional delta function integrals in level set methods. *SIAM Journal on Scientific Computing*, 32(3):1288–1309, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wu:2015:SOS**
- Chen-Hung Wu, Thomas G. Fai, Paul J. Atzberger, and Charles S. Peskin. Simulation of osmotic swelling by the stochastic immersed boundary method. *SIAM Journal on Scientific Computing*, 37(4):B660–B688, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wargnier:2020:NTN**
- Quentin Wargnier, Sylvain Faure, Benjamin Graille, Thierry Magin, and Marc Massot. Numerical treatment of the nonconservative product in a multiscale fluid model for plasmas in thermal nonequilibrium: Application to solar physics. *SIAM Journal on Scientific Computing*, 42(2):B492–B519, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wasberg:2000:ODD**
- Carl Erik Wasberg and David Gottlieb. Optimal decom-

- position of the domain in spectral methods for wave-like phenomena. *SIAM Journal on Scientific Computing*, 22(2):617–632, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32230>. [WG20]
- Weiser:2012:STC**
- [WG12] Martin Weiser and Sebastian Götschel. State trajectory compression for optimal control with parabolic PDEs. *SIAM Journal on Scientific Computing*, 34(1):A161–A184, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA161_s1. [WGB97]
- Wang:2018:AFG**
- [WG18] Jun Wang and Leslie Greengard. An adaptive fast Gauss transform in two dimensions. *SIAM Journal on Scientific Computing*, 40(3):A1274–A1300, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WGF08]
- Wu:2019:MMC**
- [WG19] Tao Wu and David F. Gleich. Multiway Monte Carlo method for linear systems. *SIAM Journal on Scientific Computing*, 41(6):A3449–A3475, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WGF08]
- Wathen:2020:SAI**
- Michael Wathen and Chen Greif. A scalable approximate inverse block preconditioner for an incompressible magnetohydrodynamics model problem. *SIAM Journal on Scientific Computing*, 42(1):B57–B79, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:1997:CIO**
- Xiaoge Wang, Kyle A. Gallivan, and Randall Bramley. CIMGS: An incomplete orthogonal factorization preconditioner. *SIAM Journal on Scientific Computing*, 18(2):516–536, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26827>.
- Wright:2008:ERM**
- Grady B. Wright, Robert D. Guy, and Aaron L. Fogelson. An efficient and robust method for simulating two-phase gel dynamics. *SIAM Journal on Scientific Computing*, 30(5):2535–2565, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [WGS17] **Wathen:2017:PMF**
 Michael Wathen, Chen Greif, and Dominik Schötzau. Preconditioners for mixed finite element discretizations of incompressible MHD equations. *SIAM Journal on Scientific Computing*, 39(6): A2993–A3013, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WGT14] **Wang:2014:HOS**
 Xiaojie Wang, Siqing Gan, and Jingtian Tang. Higher order strong approximations of semilinear stochastic wave equation with additive space-time white noise. *SIAM Journal on Scientific Computing*, 36(6):A2611–A2632, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WH95] **Washio:1995:OMM**
 Takumi Washio and Ken Hayami. Overlapped multicolor MILU preconditioning. *SIAM Journal on Scientific Computing*, 16(3): 636–650, May 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WH09] **Wolf:2009:COM**
 Michael M. Wolf and Michael T. Heath. Combinatorial optimization of matrix-vector multiplication in finite element assembly. *SIAM Journal on Scientific Computing*, 31(4):2960–2980, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WH13] **Wu:2013:SWR**
 Shu-Lin Wu and Ting-Zhu Huang. Schwarz waveform relaxation for a neutral functional partial differential equation model of lossless coupled transmission lines. *SIAM Journal on Scientific Computing*, 35(2): A1161–A1191, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WH15] **Wang:2015:SAM**
 Jingyue Wang and Weizhang Huang. A study on anisotropic mesh adaptation for finite element approximation of eigenvalue problems with anisotropic diffusion operators. *SIAM Journal on Scientific Computing*, 37(6): A2924–A2946, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WHCX13] **Wang:2013:PAG**
 Lu Wang, Xiaozhe Hu, Jonathan Cohen, and Jinchao Xu. A parallel auxiliary grid algebraic multigrid method for graphic processing units. *SIAM Journal on Scientific Computing*, 35(3):

- C263–C283, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WI12b]
- [Whi15] J. P. Whiteley. A discontinuous Galerkin finite element method for multiphase viscous flow. *SIAM Journal on Scientific Computing*, 37(4): B591–B612, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WHL18] Yingwei Wang, Wenrui Hao, and Guang Lin. Two-level spectral methods for nonlinear elliptic equations with multiple solutions. *SIAM Journal on Scientific Computing*, 40(4):B1180–B1205, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WI12a] Jeroen A. S. Witteveen and Gianluca Iaccarino. Refinement criteria for simplex stochastic collocation with local extremum diminishing robustness. *SIAM Journal on Scientific Computing*, 34(3): A1522–A1543, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Wic17] Thomas Wick. An error-oriented Newton/inexact augmented Lagrangian approach for fully monolithic phase-field fracture propagation. *SIAM Journal on Scientific Computing*, 39(4):B589–B617, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Wil09] Allan R. Willms. Bounding data with a piecewise linear band. *SIAM Journal on Scientific Computing*, 31(3): 2361–2367, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Win06] Joab R. Winkler. High order terms for condition estimation of univariate polynomials. *SIAM Journal on Scientific Computing*, 28(4):1420–

Witteveen:2012:SSC

Jeroen A. S. Witteveen and Gianluca Iaccarino. Simplex stochastic collocation with random sampling and extrapolation for nonhypercube probability spaces. *SIAM Journal on Scientific Computing*, 34(2):A814–A838, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wick:2017:EON

Thomas Wick. An error-oriented Newton/inexact augmented Lagrangian approach for fully monolithic phase-field fracture propagation. *SIAM Journal on Scientific Computing*, 39(4):B589–B617, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Willms:2009:BDP

Allan R. Willms. Bounding data with a piecewise linear band. *SIAM Journal on Scientific Computing*, 31(3): 2361–2367, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Winkler:2006:HOT

Joab R. Winkler. High order terms for condition estimation of univariate polynomials. *SIAM Journal on Scientific Computing*, 28(4):1420–

- 1436, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WJS23]
- [Win10] C. Winter. Wavelet Galerkin schemes for multidimensional anisotropic integrodifferential operators. *SIAM Journal on Scientific Computing*, 32(3):1545–1566, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WioH08] Takumi Washio, Jun ichi Okada, and Toshiaki Hisada. A parallel multilevel technique for solving the bidomain equation on a human heart with Purkinje fibers and a torso model. *SIAM Journal on Scientific Computing*, 30(6):2855–2881, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WJW21]
- [WJMT15] Grady B. Wright, Mohsin Javed, Hadrien Montanelli, and Lloyd N. Trefethen. Extension of Chebfun to periodic functions. *SIAM Journal on Scientific Computing*, 37(5):C554–C573, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WK06]
- [Wright:2023:MMG] Grady B. Wright, Andrew Jones, and Varun Shankar. MGM: a meshfree geometric multilevel method for systems arising from elliptic equations on point cloud surfaces. *SIAM Journal on Scientific Computing*, 45(2):A312–A337, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1490338>.
- [Wang:2021:SDC] Yifei Wang, Zeyu Jia, and Zaiwen Wen. Search direction correction with normalized gradient makes first-order methods faster. *SIAM Journal on Scientific Computing*, 43(5):A3184–A3211, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Wohlmuth:2003:MMM] Barbara I. Wohlmuth and Rolf H. Krause. Monotone multigrid methods on non-matching grids for nonlinear multibody contact problems. *SIAM Journal on Scientific Computing*, 25(1):324–347, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Wan:2006:MEG] Xiaoliang Wan and George Em

- Karniadakis. Multi-element generalized polynomial chaos for arbitrary probability measures. *SIAM Journal on Scientific Computing*, 28(3): 901–928, May 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62763.html. [WkZ15]
- [WK18] Matt Wala and Andreas Klöckner. Conformal mapping via a density correspondence for the double-layer potential. *SIAM Journal on Scientific Computing*, 40(6): A3715–A3732, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wala:2018:CMD]
- [WKKP13] Jeffrey Willert, C. T. Kelley, D. A. Knoll, and H. Park. Hybrid deterministic/Monte Carlo neutronics. *SIAM Journal on Scientific Computing*, 35(5):S62–S83, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Willert:2013:HDM]
- [WKM⁺07] C. H. Wolters, H. Köstler, C. Möller, J. Härdtlein, L. Grasedyck, and W. Hackbusch. Numerical mathematics of the subtraction method for the modeling of a current dipole in EEG source reconstruction using finite element head models. *SIAM Journal on Scientific Computing*, 30(1):24–45, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wong:2015:CSU]
- Tsz Wai Wong and Hong kai Zhao. Computing surface uniformization using discrete Beltrami flow. *SIAM Journal on Scientific Computing*, 37(3):A1342–A1364, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wada:1997:ARF]
- [WL97] Yasuhiro Wada and Meng-Sing Liou. An accurate and robust flux splitting scheme for shock and contact discontinuities. *SIAM Journal on Scientific Computing*, 18(3):633–657, May 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28762>. [Wang:2001:DCF]
- [WL01] Hong Wang and Jiangguo Liu. Development of CFL-free, explicit schemes for multidimensional advection-reaction equations. *SIAM Journal on Scientific Computing*, 23(4):1418–1438, July 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28762>.

- [//epubs.siam.org/sam-bin/dbq/article/37618](http://epubs.siam.org/sam-bin/dbq/article/37618).
Wan:2004:BCC [WL13]
 [WL04] Justin W. L. Wan and Xu-Dong Liu. A boundary condition-capturing multi-grid approach to irregular boundary problems. *SIAM Journal on Scientific Computing*, 25(6):1982–2003, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42854>.
- Wang:2008:SAM**
 [WL08] Wansheng Wang and Shoufu Li. Stability analysis of Θ -methods for nonlinear neutral functional differential equations. *SIAM Journal on Scientific Computing*, 30(4):2181–2205, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
Wang:2011:GPI
 [WL11] Ning Wang and Jin-Luen Lee. Geometric properties of the icosahedral-hexagonal grid on the two-sphere. *SIAM Journal on Scientific Computing*, 33(5):2536–2559, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2536_s1
- Willems:2013:FAT**
 Paul R. Willems and Bruno Lang. A framework for the MR^3 algorithm: Theory and implementation. *SIAM Journal on Scientific Computing*, 35(2):A740–A766, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wu:2020:PTB**
 [WL20] Shu-Lin Wu and Jun Liu. A parallel-in-time block-circulant preconditioner for optimal control of wave equations. *SIAM Journal on Scientific Computing*, 42(3):A1510–A1540, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:2000:AMF**
 [WLE+00] Hong Wang, Dong Liang, Richard E. Ewing, Stephen L. Lyons, and Guan Qin. An approximation to miscible fluid flows in porous media with point sources and sinks by an Eulerian–Lagrangian localized adjoint method and mixed finite element methods. *SIAM Journal on Scientific Computing*, 22(2):561–581, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/34921>.

- [WLK06] **Wang:2006:RGF**
 C. W. Wang, T. G. Liu, and B. C. Khoo. A real ghost fluid method for the simulation of multimediuim compressible flow. *SIAM Journal on Scientific Computing*, 28(1):278–302, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_60136.html.
- [WLL⁺15] **Wang:2015:ORO**
 Zheng Wang, Ming-Jun Lai, Zhaosong Lu, Wei Fan, Hasan Davulcu, and Jieping Ye. Orthogonal rank-one matrix pursuit for low rank matrix completion. *SIAM Journal on Scientific Computing*, 37(1):A488–A514, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WLLZ18] **Wang:2018:PEE**
 Hao Wang, Mingjie Liao, Ping Lin, and Lei Zhang. A posteriori error estimation and adaptive algorithm for atomistic/continuum coupling in two dimensions. *SIAM Journal on Scientific Computing*, 40(4):A2087–A2119, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WLP⁺20] **Wagner:2020:MSI**
 F. Wagner, J. Latz, I. Pappaioannou, and E. Ullmann. Multilevel sequential importance sampling for rare event estimation. *SIAM Journal on Scientific Computing*, 42(4):A2062–A2087, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WLX⁺13] **Wang:2013:ESAb**
 Shen Wang, Xiaoye S. Li, Jianlin Xia, Yingchong Situ, and Maarten V. de Hoop. Efficient scalable algorithms for solving dense linear systems with hierarchically semiseparable structures. *SIAM Journal on Scientific Computing*, 35(6):C519–C544, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [wLxY00] **Liu:2000:RAO**
 Xin wei Liu and Ya xiang Yuan. A robust algorithm for optimization with general equality and inequality constraints. *SIAM Journal on Scientific Computing*, 22(2):517–534, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33486>.
- [WLZ18] **Wang:2018:MVG**
 Meng Wang, Shingyu Leung, and Hongkai Zhao. Mod-

- ified virtual grid difference for discretizing the Laplace–Beltrami operator on point clouds. *SIAM Journal on Scientific Computing*, 40(1): A1–A21, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WM93] Mu Sheng Wei and George Majda. Numerical computation of the scattering frequencies for a cylindrically symmetric potential. *SIAM Journal on Scientific Computing*, 14(2):295–309, March 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WM05] K. Willcox and A. Megretski. Fourier series for accurate, stable, reduced-order models in large-scale linear applications. *SIAM Journal on Scientific Computing*, 26(3):944–962, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41876>.
- [WM11] Tobias Weinzierl and Miriam Mehl. Peano — a traversal and storage scheme for octree-like adaptive Cartesian multiscale grids. *SIAM Journal on Scientific Computing*, 33(5):2732–2760, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i5/p2732_s1.
- [WMBT19] Tim Wildey, Sriramkrishnan Muralikrishnan, and Tan Bui-Thanh. Unified geometric multigrid algorithm for hybridized high-order finite element methods. *SIAM Journal on Scientific Computing*, 41(5):S172–S195, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WMC11] B. Wang, G. H. Miller, and P. Colella. A particle-in-cell method with adaptive phase-space remapping for kinetic plasmas. *SIAM Journal on Scientific Computing*, 33(6):3509–3537, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3509_s1.
- [WMC12] Bei Wang, Greg Miller, and Phil Colella. An adaptive, high-order phase-space remapping for the two dimensional Vlasov–Poisson equations. *SIAM Journal on Scientific Computing*, 34(6):B909–B924, 2012. CO-

DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2019:SPM

[WMHK19]

Nan Wang, Zhiping Mao, Chengming Huang, and George Em Karniadakis. A spectral penalty method for two-sided fractional differential equations with general boundary conditions. *SIAM Journal on Scientific Computing*, 41(3):A1840–A1866, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2009:MRD

[WMI09]

Qiqi Wang, Parviz Moin, and Gianluca Iaccarino. Minimal repetition dynamic check-pointing algorithm for unsteady adjoint calculation. *SIAM Journal on Scientific Computing*, 31(4):2549–2567, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Watschinger:2022:PFM

[WMOZ22]

Raphael Watschinger, Michal Merta, Günther Of, and Jan Zapletal. A parallel fast multipole method for a space-time boundary element method for the heat equation. *SIAM Journal on Scientific Computing*, 44(4):C320–C345, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1430157>.

[//epubs.siam.org/doi/10.1137/21M1430157](https://epubs.siam.org/doi/10.1137/21M1430157).

Wee:2009:CCC

[WMSG09]

D. Wee, Y. M. Marzouk, F. Schlegel, and A. F. Ghoniem. Convergence characteristics and computational cost of two algebraic kernels in vortex methods with a tree-code algorithm. *SIAM Journal on Scientific Computing*, 31(4):2510–2527, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wen:2013:ARS

[WMUZ13]

Zaiwen Wen, Andre Milzarek, Michael Ulbrich, and Hongchao Zhang. Adaptive regularized self-consistent field iteration with exact Hessian for electronic structure calculation. *SIAM Journal on Scientific Computing*, 35(3):A1299–A1324, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wen:2008:IAB

[WNC08]

You-Wei Wen, Michael K. Ng, and Wai-Ki Ching. Iterative algorithms based on decoupling of deblurring and denoising for image restoration. *SIAM Journal on Scientific Computing*, 30(5):2655–2674, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [WO98] **Washio:1998:FMS**
 T. Washio and C. W. Oosterlee. Flexible multiple semicoarsening for three-dimensional singularly perturbed problems. *SIAM Journal on Scientific Computing*, 19(5):1646–1666, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30582>. [Woo94]
- [WO01] **Wienands:2001:TGF**
 Roman Wienands and Cornelis W. Oosterlee. On three-grid Fourier analysis for multigrid. *SIAM Journal on Scientific Computing*, 23(2):651–671, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37367>. [WOP23]
- [WO09] **Wang:2009:FDO**
 Yanwei Wang and Jeff Orchard. Fast discrete orthonormal Stockwell transform. *SIAM Journal on Scientific Computing*, 31(5):4000–4012, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WOW00]
- [Won16] **Wong:2016:BQI**
 Christopher A. Wong. Bilinear quadratures for inner products. *SIAM Journal on Scientific Computing*, 38(4):A2382–A2404, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Wood:1994:MSS]
- Wood:1994:MSS**
 S. N. Wood. Monotonic smoothing splines fitted by cross validation. *SIAM Journal on Scientific Computing*, 15(5):1126–1133, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Werner:2023:MRC**
 Steffen W. R. Werner, Michael L. Overton, and Benjamin Peherstorfer. Multifidelity robust controller design with gradient sampling. *SIAM Journal on Scientific Computing*, 45(2):A933–A957, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1500137>.
- Wienands:2000:FAG**
 Roman Wienands, Cornelis W. Oosterlee, and Takumi Washio. Fourier analysis of GMRES(m) preconditioned by multigrid. *SIAM Journal on Scientific Computing*, 22(2):582–603, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://>

epubs.siam.org/sam-bin/dbq/article/35301.

White:1998:SIP

[WP98]

Peter White and James Powell. Spatial invasion of pine beetles into lodgepole forests: a numerical approach. *SIAM Journal on Scientific Computing*, 20(1):164–184, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29755>.

Wang:2019:FOF

[WP19]

Siyang Wang and N. Anders Petersson. Fourth order finite difference methods for the wave equation with mesh refinement interfaces. *SIAM Journal on Scientific Computing*, 41(5):A3246–A3275, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2020:MMC

[WP20]

Yue Wu and Nick Polydorides. A multilevel Monte Carlo estimator for matrix multiplication. *SIAM Journal on Scientific Computing*, 42(5):A2731–A2749, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Womeldorff:2013:UMG

[WPGR13]

G. Womeldorff, J. Peterson, M. Gunzburger, and

T. Ringler. Unified matching grids for multidomain multiphysics simulations. *SIAM Journal on Scientific Computing*, 35(6):A2781–A2806, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wan:2013:IML

[WPL⁺13]

Xiaohua Wan, Sébastien Phan, Albert Lawrence, Fa Zhang, Renmin Han, Zhiyong Liu, and Mark Ellisman. Iterative methods in large field electron microscope tomography. *SIAM Journal on Scientific Computing*, 35(5):S402–S419, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

White:2017:FSH

[WPT17]

Laurent White, Rohan Panchadhara, and Dimitar Trenev. Flow simulation in heterogeneous porous media with the moving least-squares method. *SIAM Journal on Scientific Computing*, 39(2):B323–B351, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2020:SPM

[WQX20]

Kailiang Wu, Tong Qin, and Dongbin Xiu. Structure-preserving method for reconstructing unknown Hamiltonian systems from trajectory data. *SIAM Journal on*

- Scientific Computing*, 42(6): A3704–A3729, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WR13] **Wan:2013:WMA** [WRS08] Xiaoliang Wan and Boris L. Rozovskii. The Wick–Malliavin approximation of elliptic problems with log-normal random coefficients. *SIAM Journal on Scientific Computing*, 35(5):A2370–A2392, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WRB⁺15] **Wang:2015:NBM** [WRS17] Yingfei Wang, Kristofer G. Reyes, Keith A. Brown, Chad A. Mirkin, and Warren B. Powell. Nested-batch-mode learning and stochastic optimization with an application to sequential MultiStage testing in materials science. *SIAM Journal on Scientific Computing*, 37(3): B361–B381, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Wri93] **Wright:1993:CPW** Stephen J. Wright. A collection of problems for which Gaussian elimination with partial pivoting is unstable. *SIAM Journal on Scientific Computing*, 14(1):231–238, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wild:2008:OOR** Stefan M. Wild, Rommel G. Regis, and Christine A. Shoemaker. ORBIT: Optimization by radial basis function interpolation in trust-regions. *SIAM Journal on Scientific Computing*, 30(6):3197–3219, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wu:2017:PHP** Lingfei Wu, Eloy Romero, and Andreas Stathopoulos. PRIMME_SVDS: a high-performance preconditioned SVD solver for accurate large-scale computations. *SIAM Journal on Scientific Computing*, 39(5):S248–S271, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:2018:PEA** [WRSZ18] Wansheng Wang, Ting Rao, Weiwei Shen, and Peng Zhong. A posteriori error analysis for Crank–Nicolson–Galerkin type methods for reaction-diffusion equations with delay. *SIAM Journal on Scientific Computing*, 40(2):A1095–A1120, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [WS95] **Wallace:1995:NSN**
 Ronnie Wallace and David M. Sloan. Numerical solution of a nonlinear dissipative system using a pseudospectral method and inertial manifolds. *SIAM Journal on Scientific Computing*, 16(5): 1049–1070, September 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WS05] **Wang:2005:WHD**
 Xiaoqun Wang and Ian H. Sloan. Why are high-dimensional finance problems often of low effective dimension? *SIAM Journal on Scientific Computing*, 27(1):159–183, January 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42942>.
- [WS06] **Wang:2006:EWL**
 Xiaoqun Wang and Ian H. Sloan. Efficient weighted lattice rules with applications to finance. *SIAM Journal on Scientific Computing*, 28(2): 728–750, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_41819.html.
- [WS07] **Wacher:2007:SGW**
 A. Wacher and I. Sobey. String gradient weighted moving finite elements in multiple dimensions with applications in two dimensions. *SIAM Journal on Scientific Computing*, 29(2):459–480, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WS15] **Wu:2015:PHS**
 Lingfei Wu and Andreas Stathopoulos. A preconditioned hybrid SVD method for accurately computing singular triplets of large matrices. *SIAM Journal on Scientific Computing*, 37(5): S365–S388, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WS18] **Wu:2018:PPD**
 Kailiang Wu and Chi-Wang Shu. A provably positive discontinuous Galerkin method for multidimensional ideal magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 40(5): B1302–B1329, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WS20] **Wu:2020:ESH**
 Kailiang Wu and Chi-Wang Shu. Entropy symmetrization and high-order accurate entropy stable numerical schemes for relativistic MHD equations. *SIAM Journal on Scientific Computing*, 42(4):

- A2230–A2261, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WSP22]
- [WSA16] **Wang:2016:FHM**
Y. Wang, J. K. Sigurdson, and P. J. Atzberger. Fluctuating hydrodynamics methods for dynamic coarse-grained implicit-solvent simulations in LAMMPS. *SIAM Journal on Scientific Computing*, 38(5):S62–S77, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WSX17]
- [WSH14] **Wirtz:2014:PEE**
D. Wirtz, D. C. Sorensen, and B. Haasdonk. A posteriori error estimation for DEIM reduced nonlinear dynamical systems. *SIAM Journal on Scientific Computing*, 36(2):A311–A338, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WSZ14]
- [WSK99] **Warburton:1999:BFT**
T. C. Warburton, S. J. Sherwin, and G. E. Karniadakis. Basis functions for triangular and quadrilateral high-order elements. *SIAM Journal on Scientific Computing*, 20(5):1671–1695, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31571>. [WT01]
- Widlund:2022:BDA**
Olof B. Widlund, Simone Scacchi, and Luca F. Pavarino. BDDC deluxe algorithms for two-dimensional $H(\text{curl})$ isogeometric analysis. *SIAM Journal on Scientific Computing*, 44(4):A2349–A2369, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1438839>.
- Wu:2017:RTQ**
Kailiang Wu, Yeonjong Shin, and Dongbin Xiu. A randomized tensor quadrature method for high dimensional polynomial approximation. *SIAM Journal on Scientific Computing*, 39(5):A1811–A1833, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:2014:WCC**
Li-Lian Wang, Michael Daniel Samson, and Xiaodan Zhao. A well-conditioned collocation method using a pseudospectral integration matrix. *SIAM Journal on Scientific Computing*, 36(3):A907–A929, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wright:2001:LSC**
Thomas G. Wright and Lloyd N. Trefethen. Large-

- scale computation of pseudospectra using ARPACK and `eigs`. *SIAM Journal on Scientific Computing*, 23(2):591–605, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37322>. Copper Mountain Conference (2000). [WTP21]
- [WT16] Kailiang Wu and Huazhong Tang. A direct Eulerian GRP scheme for spherically symmetric general relativistic hydrodynamics. *SIAM Journal on Scientific Computing*, 38(3):B458–B489, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Wu:2016:DEG**
- [WT23] Steven Walton and Minh-Binh Tran. A numerical scheme for wave turbulence: 3-wave kinetic equations. *SIAM Journal on Scientific Computing*, 45(4):B467–B492, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1492210>. **Walton:2023:NSW**
- [WTG12] Marcus Webb, Lloyd N. Trefethen, and Pedro Gonnet. Stability of barycentric interpolation formulas for extrapolation. *SIAM Journal on Scientific Computing*, 34(6):A3009–A3015, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Wang:2021:UMG**
- [WTS94] Russ Wolfinger, Randy Tobias, and John Sall. Computing Gaussian likelihoods and their derivatives for general linear mixed models. *SIAM Journal on Scientific Computing*, 15(6):1294–1310, November 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Wolfinger:1994:CGL**
- [WTW17] Heather Wilber, Alex Townsend, and Grady B. Wright. Computing with functions in spherical and polar geometries. II. The disk. *SIAM Journal on Scientific Computing*, 39(3):C238–C262, 2017. CODEN SJOCE3. **Wilber:2017:CFS**

ISSN 1064-8275 (print), 1095-7197 (electronic).

Wilkins:2009:SAO

- [WTWB09] A. Katharina Wilkins, Bruce Tidor, Jacob White, and Paul I. Barton. Sensitivity analysis for oscillating dynamical systems. *SIAM Journal on Scientific Computing*, 31(4):2706–2732, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:1999:SUS

- [Wu99] Zi-Niu Wu. Steady and unsteady shock waves on overlapping grids. *SIAM Journal on Scientific Computing*, 20(5):1851–1874, September 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31838>.

Wu:2018:TPC

- [Wu18] Shu-Lin Wu. Toward parallel coarse grid correction for the parareal algorithm. *SIAM Journal on Scientific Computing*, 40(3):A1446–A1472, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2021:MPS

- [Wu21] Kailiang Wu. Minimum principle on specific entropy and high-order accurate invariant-region-preserving

numerical methods for relativistic hydrodynamics. *SIAM Journal on Scientific Computing*, 43(6):B1164–B1197, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2018:PEE

- [WvdZSvB18] X. Wu, K. G. van der Zee, G. Simsek, and E. H. van Brummelen. A posteriori error estimation and adaptivity for nonlinear parabolic equations using IMEX–Galerkin discretization of primal and dual equations. *SIAM Journal on Scientific Computing*, 40(5):A3371–A3399, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wieners:2003:DEM

- [WW03] Christian Wieners and Barbara I. Wohlmuth. Duality estimates and multigrid analysis for saddle point problems arising from mortar discretizations. *SIAM Journal on Scientific Computing*, 24(6):2163–2184, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40271>.

Weiss:2010:PEE

Alexander Weiss and Barbara I. Wohlmuth. A posteriori error estimator for obstacle problems. *SIAM Jour-*

nal on Scientific Computing, 32(5):2627–2658, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Walloth:2022:PEA

[WW22]

Mirjam Walloth and Winfried Wollner. A posteriori estimator for the adaptive solution of a quasi-static fracture phase-field model with irreversibility constraints. *SIAM Journal on Scientific Computing*, 44(3):B479–B505, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427437>.

Weng:2017:ECO

[WWH17]

Chengfeng Weng, Xiaoqun Wang, and Zhijian He. Efficient computation of option prices and Greeks by quasi-Monte Carlo method with smoothing and dimension reduction. *SIAM Journal on Scientific Computing*, 39(2):B298–B322, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2012:PSG

[WWJ12]

Gang Wu, Yan-Chun Wang, and Xiao-Qing Jin. A preconditioned and shifted GMRES algorithm for the PageRank problem with multiple damping factors. *SIAM Journal*

on Scientific Computing, 34(5):A2558–A2575, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Warsa:2003:SDE

[WWM03]

J. S. Warsa, T. A. Wareing, and J. E. Morel. Solution of the discontinuous P_1 equations in two-dimensional Cartesian geometry with two-level preconditioning. *SIAM Journal on Scientific Computing*, 24(6):2093–2124, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37458>.

Wang:2009:RNM

[WWY09]

Junping Wang, Yanqiu Wang, and Xiu Ye. A robust numerical method for Stokes equations based on divergence-free $H(\text{div})$ finite element methods. *SIAM Journal on Scientific Computing*, 31(4):2784–2802, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2011:PEE

[WWY11]

Junping Wang, Yanqiu Wang, and Xiu Ye. A posteriori error estimation for an interior penalty type method employing $H(\text{div})$ elements for the Stokes equations. *SIAM Journal on Scien-*

- tific Computing*, 33(1):131–152, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p131_s1. [WX21]
- Wang:2020:EPB**
- [WWYX20] Guoqiang Wang, Xinyuan Wei, Bo Yu, and Lijun Xu. An efficient proximal block coordinate homotopy method for large-scale sparse least squares problems. *SIAM Journal on Scientific Computing*, 42(1):A395–A423, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wang:1999:CBI**
- [WX99] Feng Wang and Jinchao Xu. A crosswind block iterative method for convection-dominated problems. *SIAM Journal on Scientific Computing*, 21(2):620–645, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31192>.
- Wu:2017:CAS**
- [WX17] Shu-Lin Wu and Yingxiang Xu. Convergence analysis of Schwarz waveform relaxation with convolution transmission conditions. *SIAM Journal on Scientific Computing*, 39(3):A890–A921, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wu:2021:UHO**
- Kailiang Wu and Yulong Xing. Uniformly high-order structure-preserving discontinuous Galerkin methods for Euler equations with gravitation: Positivity and well-balancedness. *SIAM Journal on Scientific Computing*, 43(1):A472–A510, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Wan:2004:SST**
- [WXK04] Xiaoliang Wan, Dongbin Xiu, and George Em Karniadakis. Stochastic solutions for the two-dimensional advection-diffusion equation. *SIAM Journal on Scientific Computing*, 26(2):578–590, March 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42684>.
- Wu:2019:TTR**
- [WXS19] Lingfei Wu, Fei Xue, and Andreas Stathopoulos. TRPL+K: Thick-restart preconditioned lanczos+k method for large symmetric eigenvalue problems. *SIAM Journal on Scientific Computing*, 41(2):A1013–A1040, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- 1064-8275 (print), 1095-7197 (electronic).
- [WY09] **Wienands:2009:CCA**
Roman Wienands and Irad Yavneh. Collocation coarse approximation in multigrid. *SIAM Journal on Scientific Computing*, 31(5):3643–3660, ??? 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WY12] **Wang:2012:LAD**
Xiangfeng Wang and Xiaoming Yuan. The linearized alternating direction method of multipliers for Dantzig selector. *SIAM Journal on Scientific Computing*, 34(5):A2792–A2811, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WY13] **Woo:2013:PLA**
Hyenkyun Woo and Sangwoon Yun. Proximal linearized alternating direction method for multiplicative denoising. *SIAM Journal on Scientific Computing*, 35(2):B336–B358, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WY19] **Wang:2019:APS**
Li Wang and Bokai Yan. An asymptotic-preserving scheme for the kinetic equation with anisotropic scattering: Heavy tail equilibrium and degenerate collision frequency. *SIAM Journal on Scientific Computing*, 41(1):A422–A451, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WYGZ10] **Wen:2010:FAS**
Zaiwen Wen, Wotao Yin, Donald Goldfarb, and Yin Zhang. A fast algorithm for sparse reconstruction based on shrinkage, subspace optimization, and continuation. *SIAM Journal on Scientific Computing*, 32(4):1832–1857, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WYL+22] **Wang:2022:IRF**
Guoqiang Wang, Wenjian Yu, Xiubo Liang, Yuanqing Wu, and Bo Yu. An iterative reduction FISTA algorithm for large-scale LASSO. *SIAM Journal on Scientific Computing*, 44(4):A1989–A2017, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1374328>.
- [WYT18] **Wang:2018:UCS**
Yihong Wang, Wenjun Ying, and Min Tang. Uniformly convergent scheme for strongly anisotropic diffusion equations with closed field lines. *SIAM Journal on Scientific Computing*, 40(5):

- B1253–B1276, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [WZ19]
- [WZ03] Kai Wang and Jun Zhang. MSP: a class of parallel multi-step successive sparse approximate inverse preconditioning strategies. *SIAM Journal on Scientific Computing*, 24(4):1141–1156, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40083>.
- [WZ15] Shu-Lin Wu and Tao Zhou. Convergence analysis for three parareal solvers. *SIAM Journal on Scientific Computing*, 37(2):A970–A992, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WZ18] Xiaoliang Wan and Xiang Zhou. Asymptotically efficient simulation of elliptic problems with small random forcing. *SIAM Journal on Scientific Computing*, 40(1): A548–A572, ??? 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WZ21a] Xiaoliang Wan and Jiayu Zhai. A minimum action method for dynamical systems with constant time delays. *SIAM Journal on Scientific Computing*, 43(1):A541–A565, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WZ21b] Shuonan Wu and Zhi Zhou. A parallel-in-time algorithm for high-order BDF methods for diffusion and subdiffusion equations. *SIAM Journal on Scientific Computing*, 43(6): A3627–A3656, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [WZ22] Wei Wang and Zhimin Zhang. Spectral element methods for eigenvalue problems based on domain decomposition. *SIAM Journal on Scientific Computing*, 44(5): A3421–A3448, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2003:MCP**Wu:2019:ATL****Wan:2021:MAM****Wu:2015:CAT****Wu:2021:PTA****Wan:2018:AES****Wang:2022:SEM**

tific Computing, 44(2):A689–A719, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1345980>.

Wan:2023:SDL

[WZB⁺23]

Wei Wan, Yuejin Zhang, Chenglong Bao, Bin Dong, and Zuoqiang Shi. A scalable deep learning approach for solving high-dimensional dynamic optimal transport. *SIAM Journal on Scientific Computing*, 45(4):B544–B563, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1490831>.

Wang:2019:FMM

[WZC19]

Bo Wang, Wenzhong Zhang, and Wei Cai. Fast multipole method for 3-D Helmholtz equation in layered media. *SIAM Journal on Scientific Computing*, 41(6):A3954–A3981, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2013:CBE

[WZET13]

Hong Wang, Weidong Zhao, Magne S. Espedal, and Aleksey S. Telyakovskiy. A component-based Eulerian–Lagrangian formulation for multicomponent multiphase

compositional flow and transport in porous media. *SIAM Journal on Scientific Computing*, 35(2):B462–B486, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wang:2021:LSS

[WZGO21]

Bao Wang, Difan Zou, Quanquan Gu, and Stanley J. Osher. Laplacian smoothing stochastic gradient Markov Chain Monte Carlo. *SIAM Journal on Scientific Computing*, 43(1):A26–A53, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Wu:2012:PTB

[WZSL12]

Jian Ping Wu, Jun Zhao, Jun Qiang Song, and Xiao Mei Li. A parallelization technique based on factor combination and graph partitioning for general incomplete LU factorization. *SIAM Journal on Scientific Computing*, 34(4):A2247–A2266, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Xie:1999:NPS

[XA99]

Dexuan Xie and Loyce Adams. New parallel SOR method by domain partitioning. *SIAM Journal on Scientific Computing*, 20(6):2261–2281, November 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197

- (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30337>. [XC13]
- [XAW17] Kuan Xu, Anthony P. Austin, and Ke Wei. A fast algorithm for the convolution of functions with compact support using Fourier extensions. *SIAM Journal on Scientific Computing*, 39(6):A3089–A3106, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:2017:FAC**
- [XB16] Bo Xiao and George Biros. Parallel algorithms for nearest neighbor search problems in high dimensions. *SIAM Journal on Scientific Computing*, 38(5):S667–S699, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xiao:2016:PAN**
- [XBC96] Y. F. Xie, G. L. Browning, and G. Chesshire. A two-dimensional composite grid numerical model based on the reduced system for oceanography. *SIAM Journal on Scientific Computing*, 17(5):1122–1134, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27811>. **Xie:1996:TDC**
- [XCLQ20] Boxi Xu, Jin Cheng, Shingyu Leung, and Jianliang Qian. Efficient algorithms for computing multidimensional integral fractional Laplacians via spherical means. *SIAM Journal on Scientific Computing*, 42(5):A2910–A2942, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:2020:EAC**
- [XCS16] Yunfeng Xiong, Zhenzhu Chen, and Sihong Shao. An advective-spectral-mixed **Xiong:2016:ASM**
- [XC20] Xin Xing and Edmond Chow. Fast Coulomb matrix construction via compressing the interactions between continuous charge distributions. *SIAM Journal on Scientific Computing*, 42(1):A162–A186, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xing:2020:FCM**
- [XC13] Wei Xu and Thomas F. Coleman. Efficient (partial) determination of derivative matrices via automatic differentiation. *SIAM Journal on Scientific Computing*, 35(3):A1398–A1416, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:2013:EPD**

- method for time-dependent many-body Wigner simulations. *SIAM Journal on Scientific Computing*, 38(4): B491–B520, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XD21] **Xu:2021:CRV** [XH15] Nan Xu and Peter Doerschuk. Computation of real-valued basis functions which transform as irreducible representations of the polyhedral groups. *SIAM Journal on Scientific Computing*, 43(6): A3657–A3676, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XEG06] **Xenophontos:2006:SFB** [Xia13] Christos Xenophontos, Miltiades Elliotis, and Georgios Georgiou. A singular function boundary integral method for Laplacian problems with boundary singularities. *SIAM Journal on Scientific Computing*, 28(2):517–532, March 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_62274.html.
- [XH05] **Xiu:2005:HOC** [Xia21] Dongbin Xiu and Jan S. Hesthaven. High-order collocation methods for differential equations with random inputs. *SIAM Journal on Scientific Computing*, 27(3): 1118–1139, May 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/SISC/volume-27/art_61520.html.
- Xiang:2015:FIH** [Xia13] Shuhuang Xiang and Guo He. The fast implementation of higher order Hermite–Fejér interpolation. *SIAM Journal on Scientific Computing*, 37(4):A1727–A1751, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xia:2013:ESM** [Xia13] Jianlin Xia. Efficient structured multifrontal factorization for general large sparse matrices. *SIAM Journal on Scientific Computing*, 35(2): A832–A860, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xia:2021:REE** [Xia21] Jianlin Xia. Robust and effective eSIF preconditioning for general dense SPD matrices. *SIAM Journal on Scientific Computing*, 43(5):S767–S790, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xie:2005:NBP** [Xie05] Dexuan Xie. A new block parallel SOR method and

- its analysis. *SIAM Journal on Scientific Computing*, 27(5):1513–1533, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60477.html. [XK08]
- Xie:2012:FSN**
- [XJBS12] Dexuan Xie, Yi Jiang, Peter Brune, and L. Ridgway Scott. A fast solver for a nonlocal dielectric continuum model. *SIAM Journal on Scientific Computing*, 34(2):B107–B126, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xie:2013:EAN**
- [XJS13] Dexuan Xie, Yi Jiang, and L. Ridgway Scott. Efficient algorithms for a nonlocal dielectric model for protein in ionic solvent. *SIAM Journal on Scientific Computing*, 35(6):B1267–B1284, ??? 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xiu:2002:WAP**
- [XK02] Dongbin Xiu and George Em Karniadakis. The Wiener–Askey polynomial chaos for stochastic differential equations. *SIAM Journal on Scientific Computing*, 24(2):619–644, March 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (elec-
- tronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38782>.
- Xin:2008:NSI**
- Jianguo Xin and Michael V. Klibanov. Numerical solution of an inverse problem of imaging of antipersonnel land mines by the globally convergent convexification algorithm. *SIAM Journal on Scientific Computing*, 30(6):3170–3196, ??? 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Xu:2022:BLA**
- [XKKN22] Yiming Xu, Vahid Keshavarzadeh, Robert M. Kirby, and Akil Narayan. A bandit-learning approach to multifidelity approximation. *SIAM Journal on Scientific Computing*, 44(1):A150–A175, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1408312>.
- Xie:2008:NMG**
- [XK08] Shusen Xie, Seokchan Kim, Gyungsoo Woo, and Suchoel Yi. A numerical method for the generalized regularized long wave equation using a reproducing kernel function. *SIAM Journal on Scientific Computing*, 30(5):2263–2285, ??? 2008. CODEN SJOCE3. ISSN 1064-

- 8275 (print), 1095-7197 (electronic).
- [XKZ95] Xiang Gen Xia, C.-C. Jay Kuo, and Zhen Zhang. Signal extrapolation in wavelet subspaces. *SIAM Journal on Scientific Computing*, 16(1): 50–73, January 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XL18] Kuan Xu and Ana F. Loureiro. Spectral approximation of convolution operators. *SIAM Journal on Scientific Computing*, 40(4): A2336–A2355, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XL20] Dexuan Xie and Benzhuo Lu. An effective finite element iterative solver for a Poisson–Nernst–Planck ion channel model with periodic boundary conditions. *SIAM Journal on Scientific Computing*, 42(6):B1490–B1516, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XLG⁺16] Shuai Xue, Hyunkyung Lim, James Glimm, Flavio H. Fenton, and Elizabeth M. Cherry. Sharp boundary electrocardiac simulations. *SIAM Journal on Scientific Computing*, 38(1):B100–B117, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XLS18] Yuanzhe Xi, Ruipeng Li, and Yousef Saad. Fast computation of spectral densities for generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(4): A2749–A2773, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XMRI18] X. Xie, M. Mohebujjaman, L. G. Rebholz, and T. Iliescu. Data-driven filtered reduced order modeling of fluid flows. *SIAM Journal on Scientific Computing*, 40(3): B834–B857, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XOMN10] J. Xu, P. N. Ostroumov, B. Mustapha, and J. Nolen. Scalable direct Vlasov solver with discontinuous Galerkin method on unstructured mesh. *SIAM Journal on Scientific Computing*, 32(6): 3476–3494, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- tronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v32/i6/p3476_s1 **Xu:1994:SRM**
- [XQ94] Jinchao Xu and Jinshui Qin. Some remarks on a multi-grid preconditioner. *SIAM Journal on Scientific Computing*, 15(1):172–184, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:1994:SRM**
- [XS17] Jinchao Xu and Jinshui Qin. Some remarks on a multi-grid preconditioner. *SIAM Journal on Scientific Computing*, 15(1):172–184, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:1994:SRM**
- [XQX15] Tao Xiong, Jing-Mei Qiu, and Zhengfu Xu. High order maximum-principle-preserving discontinuous Galerkin method for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 37(2): A583–A608, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xiong:2015:HOM**
- [XSC21] Tao Xiong, Jing-Mei Qiu, and Zhengfu Xu. High order maximum-principle-preserving discontinuous Galerkin method for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 37(2): A583–A608, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xiong:2015:HOM**
- [XS08] Yan Xu and Chi-Wang Shu. Local discontinuous Galerkin method for the Hunter–Saxton equation and its zero-viscosity and zero-dispersion limits. *SIAM Journal on Scientific Computing*, 31(2): 1249–1268, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:2008:LDG**
- [XSWG23] Yan Xu and Chi-Wang Shu. Local discontinuous Galerkin method for the Hunter–Saxton equation and its zero-viscosity and zero-dispersion limits. *SIAM Journal on Scientific Computing*, 31(2): 1249–1268, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xu:2008:LDG**
- [XS16] Yuanzhe Xi and Yousef Saad. Computing partial spectra with least-squares rational filters. *SIAM Journal on Scientific Computing*, 38(5): A3020–A3045, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xi:2016:CPS**
- [Xi:2017:RFP] Yuanzhe Xi and Yousef Saad. A rational function preconditioner for indefinite sparse linear systems. *SIAM Journal on Scientific Computing*, 39(3):A1145–A1167, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xi:2017:RFP**
- [Xia:2021:ESM] Mingtao Xia, Sihong Shao, and Tom Chou. Efficient scaling and moving techniques for spectral methods in unbounded domains. *SIAM Journal on Scientific Computing*, 43(5):A3244–A3268, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). **Xia:2021:ESM**
- [Xu:2023:OSM] Yingxiang Xu, Yafei Sun, Shuangbin Wang, and Shan Gao. Optimized Schwarz methods for the Cahn–Hilliard equation. *SIAM Journal on Scientific Computing*, 45(2):A427–A456, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v45/i2/p427_s1 **Xu:2023:OSM**

<https://epubs.siam.org/doi/10.1137/21M1459915>.

Xiu:2006:NMD

[XT06]

Dongbin Xiu and Daniel M. Tartakovsky. Numerical methods for differential equations in random domains. *SIAM Journal on Scientific Computing*, 28(3):1167–1185, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[Xue18]

SIAM Journal on Scientific Computing, 25(6):1941–1963, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41611>.

Xue:2018:BPH

Fei Xue. A block preconditioned harmonic projection method for large-scale nonlinear eigenvalue problems. *SIAM Journal on Scientific Computing*, 40(3):A1809–A1835, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Xu:2005:SDJ

[Xu94]

Jinchao Xu. A novel two-grid method for semilinear elliptic equations. *SIAM Journal on Scientific Computing*, 15(1):231–237, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[XW05]

Xu:1999:GKS

[Xu99]

Kun Xu. A gas-kinetic scheme for the Euler equations with heat transfer. *SIAM Journal on Scientific Computing*, 20(4):1317–1335, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31628>.

Sheng Xu and Z. Jane Wang. Systematic derivation of jump conditions for the immersed interface method in three-dimensional flow simulation. *SIAM Journal on Scientific Computing*, 27(6):1948–1980, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60496.html.

Xin:2017:DMR

[Xu04]

Kun Xu. Discontinuous Galerkin BGK method for viscous flow equations: One-dimensional systems.

[XXdH⁺17]

Zixing Xin, Jianlin Xia, Maarten V. de Hoop, Stephen Cauley, and Venkataramanan Balakrishnan. A distributed-memory randomized structured multifrontal method

- for sparse direct solutions. *SIAM Journal on Scientific Computing*, 39(4):C292–C318, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XXZ20] Fei Xu, Hehu Xie, and Ning Zhang. A parallel augmented subspace method for eigenvalue problems. *SIAM Journal on Scientific Computing*, 42(5):A2655–A2677, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XYGO01] G. B. Xiao, K. Yashiro, N. Guan, and S. Ohkawa. Application of an inverse problem for symmetric periodic potentials. *SIAM Journal on Scientific Computing*, 23(3):1042–1049, May 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37621>.
- [XYZ05] Jian-Xin Xu, Rui Yan, and Weinian Zhang. An algorithm for Melnikov functions and application to a chaotic rotor. *SIAM Journal on Scientific Computing*, 26(5):1525–1546, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42072>.
- [XYZ12] Ziqing Xie, Yongjun Yuan, and Jianxin Zhou. On finding multiple solutions to a singularly perturbed Neumann problem. *SIAM Journal on Scientific Computing*, 34(1):A395–A420, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v34/i1/pA395_s1.
- [XYZ22] Ziqing Xie, Yongjun Yuan, and Jianxin Zhou. On solving semilinear singularly perturbed Neumann problems for multiple solutions. *SIAM Journal on Scientific Computing*, 44(1):A501–A523, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1383380>.
- [XZ10] Xuejun Xu and Shangyou Zhang. A new divergence-free interpolation operator with applications to the Darcy–Stokes–Brinkman equations. *SIAM Journal on Scientific Computing*, 32(2):855–874, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Xu:2020:PAS**Xie:2012:FMS****Xiao:2001:AIP****Xie:2022:SSS****Xu:2005:AMF****Xu:2010:NDF**

- [XZ14] **Xu:2014:SID**
 Zhiqiang Xu and Tao Zhou. On sparse interpolation and the design of deterministic interpolation points. *SIAM Journal on Scientific Computing*, 36(4):A1752–A1769, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [XZ23] **Xue:2023:CED**
 Zhongqin Xue and Xuan Zhao. Compatible energy dissipation of the variable-step L1 scheme for the space-time fractional Cahn–Hilliard equation. *SIAM Journal on Scientific Computing*, 45(5):A2539–A2560, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1541307>.
- [XZB11] **Xie:2011:CMG**
 Hehu Xie, Ran Zhang, and Hermann Brunner. Collocation methods for general Volterra functional integral equations with vanishing delays. *SIAM Journal on Scientific Computing*, 33(6):3303–3332, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i6/p3303_s1.
- [XZLX22] **Xu:2022:UBI**
 Xiaocong Xu, Yajun Zhu, Chang Liu, and Kun Xu. UGKS-based implicit iterative method for multiscale nonequilibrium flow simulations. *SIAM Journal on Scientific Computing*, 44(4):B996–B1017, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1421398>.
- [Yam02] **Yamaleev:2002:OTD**
 Nail K. Yamaleev. Optimal two-dimensional finite difference grids providing superconvergence. *SIAM Journal on Scientific Computing*, 23(5):1707–1730, September 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37899>.
- [Yan94] **Yan:1994:SPI**
 Yi Yan. Sparse preconditioned iterative methods for dense linear systems. *SIAM Journal on Scientific Computing*, 15(5):1190–1200, September 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Yan14] **Yano:2014:STP**
 Masayuki Yano. A space-time Petrov–Galerkin certified reduced basis method: Application to the Boussinesq equations. *SIAM Journal on*

Scientific Computing, 36(1): A232–A266, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yano:2018:RBM

[Yan18]

Masayuki Yano. A reduced basis method for coercive equations with an exact solution certificate and spatio-parameter adaptivity: Energy-norm and output error bounds. *SIAM Journal on Scientific Computing*, 40(1): A388–A420, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yang:2019:EIB

[Yan19]

Jianming Yang. An easily implemented, block-based fast marching method with superior sequential and parallel performance. *SIAM Journal on Scientific Computing*, 41(5):C446–C478, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yang:2021:NFD

[Yan21]

Xiaofeng Yang. On a novel fully decoupled, second-order accurate energy stable numerical scheme for a binary fluid-surfactant phase-field model. *SIAM Journal on Scientific Computing*, 43(2): B479–B507, 2021. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Yang:2022:AHO

[Yan22]

Kai Yang. Arbitrarily high-order conservative schemes for the generalized Korteweg–de Vries equation. *SIAM Journal on Scientific Computing*, 44(4):A2709–A2733, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140777X>.

Yavneh:1993:MDE

[Yav93]

Irad Yavneh. A method for devising efficient multigrid smoothers for complicated PDE systems. *SIAM Journal on Scientific Computing*, 14(6):1437–1463, November 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yavneh:1996:RBS

[Yav96]

Irad Yavneh. On Red-Black SOR smoothing in multigrid. *SIAM Journal on Scientific Computing*, 17(1):180–192, January 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Special issue on iterative methods in numerical linear algebra (Breckenridge, CO, 1994).

Yavneh:1998:CGC

[Yav98]

Irad Yavneh. Coarse-grid correction for nonelliptic and

- singular perturbation problems. *SIAM Journal on Scientific Computing*, 19(5): 1682–1699, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31099>. [YBLH16]
- Yavneh:2019:SSC**
- [Yav19] Irad Yavneh. Special section: 2018 Copper Mountain Conference. *SIAM Journal on Scientific Computing*, 41(5):S1, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [YBM⁺18]
- Yzelman:2009:COS**
- [YB09] A. N. Yzelman and Rob H. Bisseling. Cache-oblivious sparse matrix–vector multiplication by using sparse matrix partitioning methods. *SIAM Journal on Scientific Computing*, 31(4):3128–3154, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Yang:2015:SII**
- [YBHY15] Yidu Yang, Hai Bi, Jiayu Han, and Yuanyuan Yu. The shifted-inverse iteration based on the multigrid discretizations for eigenvalue problems. *SIAM Journal on Scientific Computing*, 37(6): A2583–A2606, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [YBM⁺18]
- Yang:2016:MMH**
- Yidu Yang, Hai Bi, Hao Li, and Jiayu Han. Mixed methods for the Helmholtz transmission eigenvalues. *SIAM Journal on Scientific Computing*, 38(3):A1383–A1403, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Yang:2018:TDP**
- Pengliang Yang, Romain Brossier, Ludovic Métivier, Jean Virieux, and Wei Zhou. A time-domain preconditioned truncated Newton approach to visco-acoustic multiparameter full waveform inversion. *SIAM Journal on Scientific Computing*, 40(4): B1101–B1130, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Yeung:1999:MBV**
- [YC99] Man-Chung Yeung and Tony F. Chan. $ML(k)$ BiCGSTAB: a BiCGSTAB variant based on multiple Lanczos starting vectors. *SIAM Journal on Scientific Computing*, 21(4):1263–1290, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32158>.

- [YC14] **Yang:2014:SFI**
Chao Yang and Xiao-Chuan Cai. A scalable fully implicit compressible Euler solver for mesoscale nonhydrostatic simulation of atmospheric flows. *SIAM Journal on Scientific Computing*, 36(5): S23–S47, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YCC10] **Yang:2010:FID**
Chao Yang, Jianwen Cao, and Xiao-Chuan Cai. A fully implicit domain decomposition algorithm for shallow water equations on the cubed-sphere. *SIAM Journal on Scientific Computing*, 32(1): 418–438, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YCN21] **Yin:2021:DDC**
Xi-Yuan Yin, Linan Chen, and Jean-Christophe Nave. A diffusion-driven characteristic mapping method for particle management. *SIAM Journal on Scientific Computing*, 43(5):A3155–A3183, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YCS16] **Yuan:2016:HOP**
Daming Yuan, Juan Cheng, and Chi-Wang Shu. High order positivity-preserving discontinuous Galerkin methods for radiative transfer equations. *SIAM Journal on Scientific Computing*, 38(5): A2987–A3019, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [yCWHJ12] **Chiu:2012:CMF**
Edmond Kwan yu Chiu, Qiqi Wang, Rui Hu, and Antony Jameson. A conservative mesh-free scheme and generalized framework for conservation laws. *SIAM Journal on Scientific Computing*, 34(6):A2896–A2916, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YCY19] **Yu:2019:FVS**
Yunlong Yu, Xingding Chen, and Guangwei Yuan. A finite volume scheme preserving maximum principle for the system of radiation diffusion equations with three-temperature. *SIAM Journal on Scientific Computing*, 41(1):B93–B113, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YCZ13] **Yan:2013:PMS**
Chanhao Yan, Wei Cai, and Xuan Zeng. A parallel method for solving Laplace equations with Dirichlet data using local boundary integral equations and random walks. *SIAM Journal on*

Scientific Computing, 35(4): B868–B889, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yavneh:2006:MNM

[YD06]

Irad Yavneh and Gregory Dardyk. A multilevel nonlinear method. *SIAM Journal on Scientific Computing*, 28(1):24–46, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-28/art_61380.html.

Yang:1997:IBJ

[YDF97]

Geng Yang, Laura C. Dutto, and Michel Fortin. Inexact block Jacobi–Broyden method for solving nonlinear systems of equations. *SIAM Journal on Scientific Computing*, 18(5):1367–1392, September 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/28517>.

Yang:2022:GER

[YDK22]

Liu Yang, Constantinos Daskalakis, and George E. Karniadakis. Generative ensemble regression: Learning particle dynamics from observations of ensembles with physics-informed deep generative models. *SIAM Journal on Scientific Computing*,

44(1):B80–B99, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1413018>.

Yang:2021:REA

[YFS21]

L. Minah Yang, Alyson Fox, and Geoffrey Sanders. Rounding error analysis of mixed precision block Householder *QR* algorithms. *SIAM Journal on Scientific Computing*, 43(3):A1723–A1753, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yan:2015:SCA

[YG15]

Liang Yan and Ling Guo. Stochastic collocation algorithms using l_1 -minimization for Bayesian solution of inverse problems. *SIAM Journal on Scientific Computing*, 37(3):A1410–A1435, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yang:2005:ASM

[YGB⁺05]

Chao Yang, Weiguo Gao, Zhaojun Bai, Xiaoye S. Li, Lie-Quan Lee, Parry Husbands, and Esmond Ng. An algebraic substructuring method for large-scale eigenvalue calculation. *SIAM Journal on Scientific Computing*, 27(3):873–892, January 2005. CODEN SJOCE3.

- ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YGCP96] Serhat Yeşilyurt, Chahid K. Ghaddar, Manuel E. Cruz, and Anthony T. Patera. Bayesian-validated surrogates for noisy computer simulations and application to random media. *SIAM Journal on Scientific Computing*, 17(4):973–992, July 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YH19] **Yesilyurt:1996:BVS** Xunnian Yang and Jialin Hong. Dynamic evaluation of exponential polynomial curves and surfaces via basis transformation. *SIAM Journal on Scientific Computing*, 41(5):A3401–A3420, ??? 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YHC16] **Yeo:2021:VIF** Kyongmin Yeo, Dylan E. C. Grullon, Fan-Keng Sun, Duane S. Boning, and Jayant R. Kalagnanam. Variational inference formulation for a model-free simulation of a dynamical system with unknown parameters by a recurrent neural network. *SIAM Journal on Scientific Computing*, 43(2):A1305–A1335, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YH17] **Yang:2017:DEF** Xunnian Yang and Jialin Hong. Dynamic evaluation of free-form curves and surfaces. *SIAM Journal on Scientific Computing*, 39(2):B424–B441, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YHFG22] **Yang:2022:EMM** Zihao Yang, Jizu Huang, Xiaobing Feng, and Xiaofei Guan. An efficient Multi-Modes Monte Carlo homogenization method for random materials. *SIAM Journal on Scientific Computing*, 44(3):A1752–A1774, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1454237>.
- Yang:2016:NPT** Haijian Yang, Feng-Nan Hwang, and Xiao-Chuan Cai. Nonlinear preconditioning techniques for full-space Lagrange–Newton solution of PDE-constrained optimization problems. *SIAM Journal on Scientific Computing*, 38(5):A2756–A2778, ??? 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Yang:2019:DEE**

- [YHL19] **Yi:2019:CDG**
 Nianyu Yi, Yunqing Huang, and Hailiang Liu. A conservative discontinuous Galerkin method for nonlinear electromagnetic Schrödinger equations. *SIAM Journal on Scientific Computing*, 41(6): B1389–B1411, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YH95] **Yiu:1995:OCM**
 K. F. C. Yiu. On the optimal control method for airfoil and cascade analysis. *SIAM Journal on Scientific Computing*, 16(6):1367–1386, November 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YHQ12] **Yang:2012:MMW**
 Xiaobo Yang, Weizhang Huang, and Jianxian Qiu. A moving mesh WENO method for one-dimensional conservation laws. *SIAM Journal on Scientific Computing*, 34(4):A2317–A2343, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YJ13] **Yan:2013:SPB**
 Bokai Yan and Shi Jin. A successive penalty-based asymptotic-preserving scheme for kinetic equations. *SIAM Journal on Scientific Computing*, 35(1):A150–A172, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YHS07] **Yang:2007:KFV**
 Jaw-Yen Yang, Tse-Yang Hsieh, and Yu-Hsin Shi. Kinetic flux vector splitting schemes for ideal quantum gas dynamics. *SIAM Journal on Scientific Computing*, 29(1):221–244, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YJXZ22] **Ye:2022:HPD**
 Boyang Ye, Shi Jin, Yulong Xing, and Xinghui Zhong. Hamiltonian-preserving discontinuous Galerkin methods for the Liouville equation with discontinuous potential. *SIAM Journal on Scientific Computing*, 44(5): A3317–A3340, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://doi.org/10.1137/22M1433171>.
- [Yin09] **Ying:2009:SFT**
 Lexing Ying. Sparse Fourier transform via butterfly algorithm. *SIAM Journal on Scientific Computing*, 31(3): 1678–1694, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Numerical instability from the use of a monomial basis has been reported and repaired [KM12].

- [//epubs.siam.org/doi/10.1137/22M147952X](https://epubs.siam.org/doi/10.1137/22M147952X).
- [YK03] Beong In Yun and Philsu Kim. A new sigmoidal transformation for weakly singular integrals in the boundary element method. *SIAM Journal on Scientific Computing*, 24(4):1203–1217, July 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39619>.
- [YL93] Shing-Tung Yau and Ya Yan Lu. Reducing the symmetric matrix eigenvalue problem to matrix multiplications. *SIAM Journal on Scientific Computing*, 14(1):121–136, January 1993. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YLF23] Changsheng Yu, T. G. Liu, and Chengliang Feng. A well-balanced scheme for Euler equations with singular sources. *SIAM Journal on Scientific Computing*, 45(4):A2119–A2151, ??? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1473224>.
- [YLG22] **Yun:2003:NST** Kyongmin Yeo, Zan Li, and Wesley Gifford. Generative adversarial network for probabilistic forecast of random dynamical systems. *SIAM Journal on Scientific Computing*, 44(4):A2150–A2175, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1457448>.
- [YLHX15] **Yin:2015:MCS** Penghang Yin, Yifei Lou, Qi He, and Jack Xin. Minimization of ℓ_{1-2} for compressed sensing. *SIAM Journal on Scientific Computing*, 37(1):A536–A563, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YMM14] **Yau:1993:RSM** Jiyan Yang, Xiangrui Meng, and Michael W. Mahoney. Quantile regression for large-scale applications. *SIAM Journal on Scientific Computing*, 36(5):S78–S110, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YMW07] **Yu:2023:WBS** Chao Yang, Juan C. Meza, and Lin-Wang Wang. A trust region direct constrained minimization algorithm for the Kohn–Sham equation.

SIAM Journal on Scientific Computing, 29(5):1854–1875, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Young:1994:RPL

[You94]

P. J. Young. A reformulation of the partial least squares regression algorithm. *SIAM Journal on Scientific Computing*, 15(1):225–230, January 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yen:1998:ENT

[YP98]

Jeng Yen and Linda R. Petzold. An efficient Newton-type iteration for the numerical solution of highly oscillatory constrained multibody dynamic systems. *SIAM Journal on Scientific Computing*, 19(5):1513–1534, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29722>.

Yeung:2017:AAM

[YPHH17]

Yu-Hong Yeung, Alex Pothen, Mahantesh Halappanavar, and Zhenyu Huang. AMPS: an augmented matrix formulation for principal submatrix updates with application to power grids. *SIAM Journal on Scientific Computing*, 39(5):S809–S827, 2017. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Yang:2001:LSN

[YPN⁺01]

Chao Yang, Barry W. Peyton, Donald W. Noid, Bobby G. Sumpter, and Robert E. Tuzun. Large-scale normal coordinate analysis for molecular structures. *SIAM Journal on Scientific Computing*, 23(2):563–582, March 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/37366>.

Yarvin:1998:GGQ

[YR98]

N. Yarvin and V. Rokhlin. Generalized Gaussian quadratures and singular value decompositions of integral operators. *SIAM Journal on Scientific Computing*, 20(2):699–718, March 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31077>.

Young:2012:ARP

[YR12]

Joseph Young and Denis Ridzal. An application of random projection to parameter estimation in partial differential equations. *SIAM Journal on Scientific Computing*, 34(4):A2344–A2365, 2012. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Yonkee:2016:PET

[YS16]

Nathan Yonkee and James C. Sutherland. PoKiTT: Exposing task and data parallelism on heterogeneous architectures for detailed chemical kinetics, transport, and thermodynamics calculations. *SIAM Journal on Scientific Computing*, 38(5):S264–S281, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Youett:2019:GCF

[YSK19]

Jonathan Youett, Oliver Sander, and Ralf Kornhuber. A globally convergent filter-trust-region method for large deformation contact problems. *SIAM Journal on Scientific Computing*, 41(1):B114–B138, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yuan:2007:SHO

[YSS07]

Jing Yuan, Christoph Schörr, and Gabriele Steidl. Simultaneous higher-order optical flow estimation and decomposition. *SIAM Journal on Scientific Computing*, 29(6):2283–2304, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

[YSX17]

Yan:2017:SAU

Liang Yan, Yeonjong Shin, and Dongbin Xiu. Sparse approximation using $\ell_1 - \ell_2$ minimization and its application to stochastic collocation. *SIAM Journal on Scientific Computing*, 39(1):A229–A254, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yu:2014:LPF

[YSZ14]

Jiaping Yu, Feng Shi, and Haibiao Zheng. Local and parallel finite element algorithms based on the partition of unity for the Stokes problem. *SIAM Journal on Scientific Computing*, 36(5):C547–C567, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yamazaki:2015:MPC

[YTD15]

Ichitaro Yamazaki, Stanimire Tomov, and Jack Dongarra. Mixed-precision Cholesky QR factorization and its case studies on multicore CPU with multiple GPUs. *SIAM Journal on Scientific Computing*, 37(3):C307–C330, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Yang:2011:NNM

[YTLI11]

Qianqian Yang, Ian Turner, Fawang Liu, and Milos

- Ilić. Novel numerical methods for solving the time-space fractional diffusion equation in two dimensions. *SIAM Journal on Scientific Computing*, 33(3):1159–1180, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1159_s1
- [YTT21] Xiu Yang, Guzel Tartakovsky, and Alexandre M. Tartakovsky. Physics information aided kriging using stochastic simulation models. *SIAM Journal on Scientific Computing*, 43(6):A3862–A3891, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Yu01] Hongyi Yu. A local space-time adaptive scheme in solving two-dimensional parabolic problems based on domain decomposition methods. *SIAM Journal on Scientific Computing*, 23(1):304–322, January 2001. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/31536>.
- [Yun03] Beong In Yun. An extended sigmoidal transformation technique for evaluating weakly singular integrals without splitting the integration interval. *SIAM Journal on Scientific Computing*, 25(1):284–301, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YVB98] Irad Yavneh, Cornelis H. Vener, and Achi Brandt. Fast multigrid solution of the advection problem with closed characteristics. *SIAM Journal on Scientific Computing*, 19(1):111–125, January 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/30298>.
- [YWG21] Zhiguo Yang, Li-Lian Wang, and Yang Gao. A truly exact perfect absorbing layer for time-harmonic acoustic wave scattering problems. *SIAM Journal on Scientific Computing*, 43(2):A1027–A1061, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YWL17] Guoqiao You, Tony Wong, and Shingyu Leung. Eulerian methods for visualizing continuous dynamical systems using Lyapunov expo-

Yavneh:1998:FMS**Yang:2021:PIA**

[YVB98]

Yu:2001:LST

[YWG21]

Yang:2021:TEP**You:2017:EMV**

[YWL17]

- nents. *SIAM Journal on Scientific Computing*, 39(2): A415–A437, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YWL21] Tengchao Yu, Hongqiao Wang, and Jinglai Li. Maximum conditional entropy Hamiltonian Monte Carlo sampler. *SIAM Journal on Scientific Computing*, 43(5): A3607–A3626, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YWW23] Xiaoqiang Yue, Zhiyong Wang, and Shu-Lin Wu. Convergence analysis of a mixed precision parareal algorithm. *SIAM Journal on Scientific Computing*, 45(5): A2483–A2510, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1510169>.
- [YY18] Xiaofeng Yang and Haijun Yu. Efficient second order unconditionally stable schemes for a phase field moving contact line model using an invariant energy quadratization approach. *SIAM Journal on Scientific Computing*, 40(3): B889–B914, 2018. CO-
- DEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YYS16] Haijian Yang, Chao Yang, and Shuyu Sun. Active-set reduced-space methods with nonlinear elimination for two-phase flow problems in porous media. *SIAM Journal on Scientific Computing*, 38(4): B593–B618, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YYWY18] Hangrui Yue, Qingzhi Yang, Xiangfeng Wang, and Xiaoming Yuan. Implementing the alternating direction method of multipliers for big datasets: a case study of least absolute shrinkage and selection operator. *SIAM Journal on Scientific Computing*, 40(5): A3121–A3156, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YYY11] Guangwei Yuan, Yanzhong Yao, and Li Yin. A conservative domain decomposition procedure for nonlinear diffusion problems on arbitrary quadrilateral grids. *SIAM Journal on Scientific Computing*, 33(3):1352–1368, 2011. CODEN SJOCE3. ISSN 1064-

Yu:2021:MCE**Yang:2016:ASR****Yue:2023:CAM****Yue:2018:IAD****Yang:2018:ESO****Yuan:2011:CDD**

- 8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i3/p1352_s1 [YZ11]
- [YZ05] Xudong Yao and Jianxin Zhou. A minimax method for finding multiple critical points in Banach spaces and its application to quasi-linear elliptic PDE. *SIAM Journal on Scientific Computing*, 26(5):1796–1809, September 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/43050>.
- [YZ07] Xudong Yao and Jianxin Zhou. Numerical methods for computing nonlinear eigenpairs: Part I. Isohomogeneous cases. *SIAM Journal on Scientific Computing*, 29(4):1355–1374, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YZ08] Xudong Yao and Jianxin Zhou. Numerical methods for computing nonlinear eigenpairs: Part II. Non-isohomogeneous cases. *SIAM Journal on Scientific Computing*, 30(2):937–956, 2008. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YZK20] Liu Yang, Dongkun Zhang, and George Em Karniadakis. Physics-informed generative adversarial networks for stochastic differential equations. *SIAM Journal on Scientific Computing*, 42(1):A292–A317, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YZL20] Xiu Yang, Xueyu Zhu, and Jing Li. When bifidelity meets CoKriging: an efficient physics-informed Multi-Fidelity method. *SIAM Journal on Scientific Computing*, 42(1):A220–A249, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YZY09] Junfeng Yang, Yin Zhang, and Wotao Yin. An efficient alternating direction algorithms for ℓ_1 -problems in compressive sensing. *SIAM Journal on Scientific Computing*, 33(1):250–278, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i1/p250_s1.
- [Yang:2011:ADA]
- [Yang:2020:PIG]
- [Yang:2020:WBM]
- [Yang:2009:ETA]

- cient TVL1 algorithm for deblurring multichannel images corrupted by impulsive noise. *SIAM Journal on Scientific Computing*, 31(4):2842–2865, ????. 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zam16]
- [YZZ19] Jianyuan Yin, Lei Zhang, and Pingwen Zhang. High-index optimization-based shrinking dimer method for finding high-index saddle points. *SIAM Journal on Scientific Computing*, 41(6):A3576–A3595, ????. 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZAD⁺16] Weiqun Zhang, Ann Almgren, Marcus Day, Tan Nguyen, John Shalf, and Didem Unat. BoxLib with tiling: an adaptive mesh refinement software framework. *SIAM Journal on Scientific Computing*, 38(5):S156–S172, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZAK15] Mohsen Zayernouri, Mark Ainsworth, and George Em Karniadakis. Tempered fractional Sturm–Liouville Eigen-Problems. *SIAM Journal on Scientific Computing*, 37(4):A1777–A1800, ????. 2015.
- [Zas95] Leonid Yu. Zaslavsky. An adaptive algebraic multigrid for reactor criticality calculations. *SIAM Journal on Scientific Computing*, 16(4):840–847, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZB12] Grigorios P. Zouros and Neil V. Budko. Transverse electric scattering on inhomogeneous objects: Spectrum of integral operator and preconditioning. *SIAM Journal on Scientific Computing*, 34(3):B226–B246, ????. 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZBdAF20] Yassine Zniyed, Rémy Boyer, André L. F. de Almeida, and Gérard Favier. A TT-based hierarchical framework

Zampini:2016:PCR

Stefano Zampini. PCBDDC: a class of robust dual-primal methods in PETSc. *SIAM Journal on Scientific Computing*, 38(5):S282–S306, ????. 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zaslavsky:1995:AAM

Leonid Yu. Zaslavsky. An adaptive algebraic multigrid for reactor criticality calculations. *SIAM Journal on Scientific Computing*, 16(4):840–847, July 1995. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zouros:2012:TES

Grigorios P. Zouros and Neil V. Budko. Transverse electric scattering on inhomogeneous objects: Spectrum of integral operator and preconditioning. *SIAM Journal on Scientific Computing*, 34(3):B226–B246, ????. 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zniyed:2020:TBH

Yassine Zniyed, Rémy Boyer, André L. F. de Almeida, and Gérard Favier. A TT-based hierarchical framework

- for decomposing high-order tensors. *SIAM Journal on Scientific Computing*, 42(2):A822–A848, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZCC⁺16]
- [ZBFN17] Olivier Zahm, Marie Billaud-Friess, and Anthony Nouy. Projection-based model order reduction methods for the estimation of vector-valued variables of interest. *SIAM Journal on Scientific Computing*, 39(4):A1647–A1674, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zahm:2017:PBM]
- [Zbi11] Christophe J. Zbinden. Partitioned Runge–Kutta–Chebyshev methods for diffusion-advection-reaction problems. *SIAM Journal on Scientific Computing*, 33(4):1707–1725, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resources/1/sjoce3/v33/i4/p1707_s1. [ZCE06]
- [ZBK18] Dongkun Zhang, Hessam Babaei, and George Em Karniadakis. Stochastic domain decomposition via moment minimization. *SIAM Journal on Scientific Computing*, 40(4):A2152–A2173, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhang:2018:SDD]
- [Zhang:2016:IRL] Xiaowei Zhang, Li Cheng, Delin Chu, Li-Zhi Liao, Michael K. Ng, and Roger C. E. Tan. Incremental regularized least squares for dimensionality reduction of large-scale data. *SIAM Journal on Scientific Computing*, 38(3):B414–B439, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhang:2016:IRL]
- [Zhu:2006:SDL] Wei Zhu, Tony Chan, and Selim Esedoğlu. Segmentation with depth: a level set approach. *SIAM Journal on Scientific Computing*, 28(5):1957–1973, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhu:2006:SDL]
- [Zhang:2012:EEA] Zhongqiang Zhang, Minseok Choi, and George Em Karniadakis. Error estimates for the ANOVA method with polynomial chaos interpolation: Tensor product functions. *SIAM Journal on Scientific Computing*, 34(2):A1165–A1186, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhang:2012:EEA]

Zhang:2011:UAD

- [ZCL⁺11] Yong-Tao Zhang, Shanqin Chen, Fengyan Li, Hongkai Zhao, and Chi-Wang Shu. Uniformly accurate discontinuous Galerkin fast sweeping methods for eikonal equations. *SIAM Journal on Scientific Computing*, 33(4):1873–1896, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoc3/v33/i4/p1873_s1

Zhao:2006:NKA

- [ZCP06] Weidong Zhao, Lifeng Chen, and Shige Peng. A new kind of accurate numerical method for backward stochastic differential equations. *SIAM Journal on Scientific Computing*, 28(4):1563–1581, January 2006. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zahm:2020:GBD

- [ZCPM20] Olivier Zahm, Paul G. Constantine, Clémentine Prieur, and Youssef M. Marzouk. Gradient-based dimension reduction of multivariate vector-valued functions. *SIAM Journal on Scientific Computing*, 42(1):A534–A558, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zheng:2021:CSL

- [ZCQQ21] Nanyi Zheng, Xiaofeng Cai, Jing-Mei Qiu, and Jianxian Qiu. A conservative semi-Lagrangian hybrid Hermite WENO scheme for linear transport equations and the nonlinear Vlasov–Poisson system. *SIAM Journal on Scientific Computing*, 43(5):A3580–A3606, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2022:PTD

- [ZCS22] Hong Zhang, Emil M. Constantinescu, and Barry F. Smith. PETSc TSAjoint: A discrete adjoint ODE solver for first-order and second-order sensitivity analysis. *SIAM Journal on Scientific Computing*, 44(1):C1–C24, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M140078X>.

Zhang:2010:MCT

- [ZCW10] Ya Zhang, Li-Qun Cao, and Yau-Shu Wong. Multiscale computations for 3D time-dependent Maxwell’s equations in composite materials. *SIAM Journal on Scientific Computing*, 32(5):2560–2583, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- [ZCZ04] **Zhang:2004:TDM** Shuang Zhang, Jian Chen, and Norman J. Zabusky. Turbulent decay and mixing of accelerated inhomogeneous flows via a feature based analysis. *SIAM Journal on Scientific Computing*, 26(1):86–104, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42396>. [ZD19]
- [ZCZK14] **Zayernouri:2014:SDS** Mohsen Zayernouri, Wanrong Cao, Zhongqiang Zhang, and George Em Karniadakis. Spectral and discontinuous spectral element methods for fractional delay equations. *SIAM Journal on Scientific Computing*, 36(6):B904–B929, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZEG19]
- [ZD09] **Zhang:2009:NSD** Jian Zhang and Qiang Du. Numerical studies of discrete approximations to the Allen–Cahn equation in the sharp interface limit. *SIAM Journal on Scientific Computing*, 31(4):3042–3063, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zen16]
- Zhang:2019:LFC** Qinghai Zhang and Lingyun Ding. Lagrangian flux calculation through a fixed planar curve for scalar conservation laws. *SIAM Journal on Scientific Computing*, 41(6):A3596–A3623, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2016:OBS** Lei Zhang, Qiang Du, and Zhenzhen Zheng. Optimization-based shrinking dimer method for finding transition states. *SIAM Journal on Scientific Computing*, 38(1):A528–A544, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zaitzeff:2019:VII** Alexander Zaitzeff, Selim Esedoglu, and Krishna Garikipati. On the Voronoi implicit interface method. *SIAM Journal on Scientific Computing*, 41(4):A2407–A2429, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zeng:2016:GAE** Xianyi Zeng. A general approach to enhance slope limiters in MUSCL schemes on nonuniform rectilinear grids. *SIAM Journal on Scientific Computing*, 38(2):A789–

- A813, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZFLB15]
- Zhang:2015:EOE**
- Yongjin Zhang, Lihong Feng, Suzhou Li, and Peter Benner. An efficient output error estimation for model order reduction of parametrized evolution equations. *SIAM Journal on Scientific Computing*, 37(6):B910–B936, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2015:HRR**
- Liping Zhang, Hung-Yuan Fan, Eric King wah Chu, and Yimin Wei. Homotopy for rational Riccati equations arising in stochastic optimal control. *SIAM Journal on Scientific Computing*, 37(1):B103–B125, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhao:2014:NKH**
- Weidong Zhao, Yu Fu, and Tao Zhou. New kinds of high-order multistep schemes for coupled forward backward stochastic differential equations. *SIAM Journal on Scientific Computing*, 36(4):A1731–A1751, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zanetti:2023:NSC**
- Filippo Zanetti and Jacek Gondzio. A new stopping cri-
- [ZF09] Guohua Zhou and Scott R. Fulton. Fourier analysis of multigrid methods on hexagonal grids. *SIAM Journal on Scientific Computing*, 31(2):1518–1538, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhou:2009:FAM**
- [ZF14] Qinghai Zhang and Aaron Fogelson. Fourth-order interface tracking in two dimensions via an improved polygonal area mapping method. *SIAM Journal on Scientific Computing*, 36(5):A2369–A2400, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2014:FOI**
- [ZFZ14] Weidong Zhao, Yu Fu, and Tao Zhou. New kinds of high-order multistep schemes for coupled forward backward stochastic differential equations. *SIAM Journal on Scientific Computing*, 36(4):A1731–A1751, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhuk:2015:DAL**
- [ZFHS15] Sergiy Zhuk, Jason Frank, Isabelle Herlin, and Robert Shorten. Data assimilation for linear parabolic equations: Minimax projection method. *SIAM Journal on Scientific Computing*, 37(3):A1174–A1196, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZG23]

- terion for Krylov solvers applied in interior point methods. *SIAM Journal on Scientific Computing*, 45(2): A703–A728, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1490041>. [ZH09]
- [ZGA10] Adam C. Zelinski, Vivek K. Goyal, and Elfar Adalsteinsson. Simultaneously sparse solutions to linear inverse problems with multiple system matrices and a single observation vector. *SIAM Journal on Scientific Computing*, 31(6):4553–4579, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZH21]
- [ZGG17] Yao Zhu, David F. Gleich, and Ananth Grama. Erasure coding for fault-oblivious linear system solvers. *SIAM Journal on Scientific Computing*, 39(1):C48–C64, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zha94]
- [ZGK20] Dongkun Zhang, Ling Guo, and George Em Karniadakis. Learning in modal space: Solving time-dependent stochastic PDEs using physics-informed neural networks. *SIAM Journal on Scientific Computing*, 42(2):A639–A665, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhu:2009:CRH**
- Yong-Kang Zhu and Wayne B. Hayes. Correct rounding and a hybrid approach to exact floating-point summation. *SIAM Journal on Scientific Computing*, 31(4):2981–3001, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhu:2021:NRM**
- Yuanpeng Zhu and Xuli Han. A novel recursive modification framework for enhancing polynomial reproduction property of interpolation basis functions. *SIAM Journal on Scientific Computing*, 43(1):A511–A540, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:1994:MSM**
- Xuejun Zhang. Multilevel Schwarz methods for the bi-harmonic Dirichlet problem. *SIAM Journal on Scientific Computing*, 15(3):621–644, May 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Iterative methods in numerical linear algebra (Copper Mountain Resort, CO, 1992).

- [Zha96] **Zhan:1996:CEP**
 Xingzhi Zhan. Computing the extremal positive definite solutions of a matrix equation. *SIAM Journal on Scientific Computing*, 17(5):1167–1174, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/27704>.
- [Zha97] **Zhang:1997:GCG**
 Shao-Liang Zhang. GPBi-CG: Generalized product-type methods based on Bi-CG for solving nonsymmetric linear systems. *SIAM Journal on Scientific Computing*, 18(2):537–551, March 1997. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/23631>.
- [Zha18a] **Zhang:2018:FHO**
 Qinghai Zhang. Fourth- and higher-order interface tracking via mapping and adjusting regular semianalytic sets represented by cubic splines. *SIAM Journal on Scientific Computing*, 40(6):A3755–A3788, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Zha18b] **Zhang:2018:HON**
 Ruming Zhang. A high order numerical method for scattering from locally perturbed periodic surfaces. *SIAM Journal on Scientific Computing*, 40(4):A2286–A2314, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Zha20] **Zhang:2020:PDR**
 Shun Zhang. Primal-dual reduced basis methods for convex minimization variational problems: Robust true solution a posteriori error certification and adaptive greedy algorithms. *SIAM Journal on Scientific Computing*, 42(6):A3638–A3676, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Zha22a] **Zhang:2022:HOC**
 Ruming Zhang. High order complex contour discretization methods to simulate scattering problems in locally perturbed periodic waveguides. *SIAM Journal on Scientific Computing*, 44(5):B1257–B1281, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1421532>.
- [Zha22b] **Zhao:2022:RTD**
 Lina Zhao. A Robin-type domain decomposition method for a novel mixed-type DG method for the coupled Stokes–Darcy prob-

- lem. *SIAM Journal on Scientific Computing*, 44(5): B1221–B1256, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1449750>. [ZHQ20]
- Zheng:2017:NSN**
- [ZHDZ17] Chunxiong Zheng, Jiashun Hu, Qiang Du, and Jiwei Zhang. Numerical solution of the nonlocal diffusion equation on the real line. *SIAM Journal on Scientific Computing*, 39(5):A1951–A1968, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zheng:2007:NSS**
- [Zhe07] Chunxiong Zheng. Numerical solution to the Sine-Gordon equation defined on the whole real axis. *SIAM Journal on Scientific Computing*, 29(6): 2494–2506, 2007. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhou:2021:ACM**
- [ZHL21] Mo Zhou, Jiequn Han, and Jianfeng Lu. Actor-critic method for high dimensional static Hamilton–Jacobi–Bellman partial differential equations based on neural networks. *SIAM Journal on Scientific Computing*, 43(6):A4043–A4066, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2020:HOC**
- Min Zhang, Weizhang Huang, and Jianxian Qiu. High-order conservative positivity-preserving DG-interpolation for deforming meshes and application to moving mesh DG simulation of radiative transfer. *SIAM Journal on Scientific Computing*, 42(5): A3109–A3135, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zheng:2010:PEE**
- [ZHS10] Haibiao Zheng, Yanren Hou, and Feng Shi. A posteriori error estimates of stabilization of low-order mixed finite elements for incompressible flow. *SIAM Journal on Scientific Computing*, 32(3): 1346–1360, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2021:DLU**
- [ZHY21] Guo-Dong Zhang, Xiaoming He, and Xiaofeng Yang. Decoupled, linear, and unconditionally energy stable fully discrete finite element numerical scheme for a two-phase ferrohydrodynamics model. *SIAM Journal on Scientific Computing*, 43(1):B167–B193, 2021. CODEN SJOCE3. ISSN 1064-

8275 (print), 1095-7197 (electronic).

Ziegler:2012:BSA

[Zie12]

Udo Ziegler. Block-structured adaptive mesh refinement on curvilinear-orthogonal grids. *SIAM Journal on Scientific Computing*, 34(3):C102–C121, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zimmermann:2013:MLT

[Zim13]

R. Zimmermann. On the maximum likelihood training of gradient-enhanced spatial Gaussian processes. *SIAM Journal on Scientific Computing*, 35(6):A2554–A2574, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zimmermann:2014:LPR

[Zim14]

R. Zimmermann. A locally parametrized reduced-order model for the linear frequency domain approach to time-accurate computational fluid dynamics. *SIAM Journal on Scientific Computing*, 36(3):B508–B537, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zimmermann:2020:HID

[Zim20]

Ralf Zimmermann. Hermite interpolation and data processing errors on Riemannian matrix manifolds. *SIAM*

Journal on Scientific Computing, 42(5):A2593–A2619, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zingg:2000:CHA

[Zin00]

David W. Zingg. Comparison of high-accuracy finite-difference methods for linear wave propagation. *SIAM Journal on Scientific Computing*, 22(2):476–502, March 2000. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/35032>.

Zhao:2020:PFE

[ZJB20]

Quan Zhao, Wei Jiang, and Weizhu Bao. A parametric finite element method for solid-state dewetting problems in three dimensions. *SIAM Journal on Scientific Computing*, 42(1):B327–B352, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2012:FOA

[ZJC12]

Qinghai Zhang, Hans Johansen, and Phillip Colella. A fourth-order accurate finite-volume method with structured adaptive mesh refinement for solving the advection-diffusion equation. *SIAM Journal on Scientific Computing*, 34(2):B179–

- B201, ??? 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZK14b]
- [ZJX14] **Zhang:2014:NAS**
Chao Zhang, Liping Jing, and Naihua Xiu. A new active set method for nonnegative matrix factorization. *SIAM Journal on Scientific Computing*, 36(6):A2633–A2653, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZK14c]
- [ZK96] **Zhu:1996:PIV**
Yimin Zhu and I. Norman Katz. A parallel implementation of the p -version of the finite element method. *SIAM Journal on Scientific Computing*, 17(5):1040–1067, September 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26061>. [ZK15]
- [ZK14a] **Zayernouri:2014:DSE**
Mohsen Zayernouri and George Em Karniadakis. Discontinuous spectral element methods for time- and space-fractional advection equations. *SIAM Journal on Scientific Computing*, 36(4):B684–B707, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZKN20]
- Zayernouri:2014:FSC**
Mohsen Zayernouri and George Em Karniadakis. Fractional spectral collocation method. *SIAM Journal on Scientific Computing*, 36(1):A40–A62, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zeng:2014:PBB**
Pingping Zeng and Yue Kuen Kwok. Pricing barrier and Bermudan style options under time-changed Lévy processes: Fast Hilbert Transform approach. *SIAM Journal on Scientific Computing*, 36(3):B450–B485, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zheng:2015:NMS**
Mengdi Zheng and George Em Karniadakis. Numerical methods for SPDEs with tempered stable processes. *SIAM Journal on Scientific Computing*, 37(3):A1197–A1217, ??? 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zala:2020:SPF**
Vidhi Zala, Mike Kirby, and Akil Narayan. Structure-preserving function approximation via convex optimization. *SIAM Journal on Scientific Computing*, 42(5):

- A3006–A3029, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZKN21] **Zala:2021:SPN** [ZLG98] Vidhi Zala, Robert M. Kirby, and Akil Narayan. Structure-preserving nonlinear filtering for continuous and discontinuous Galerkin spectral/*hp* element methods. *SIAM Journal on Scientific Computing*, 43(6):A3713–A3732, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZKV99] **Zubik-Kowal:1999:WRF** [ZLJ96] Barbara Zubik-Kowal and Stefan Vandewalle. Waveform relaxation for functional differential equations. *SIAM Journal on Scientific Computing*, 21(1):207–226, January 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/33291>.
- [ZLBC03] **Zeng:2003:FCM** [ZLLT13] Yonghong Zeng, Zhiping Lin, Guoan Bi, and Lizhi Cheng. Fast computation of MD-DCT-IV/MD-DST-IV by MD-DWT or MD-DCT-II. *SIAM Journal on Scientific Computing*, 24(6):1903–1918, November 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39483>.
- Zhang:1998:HMP** T. Zhang, K. H. Law, and G. H. Golub. On the homotopy method for perturbed symmetric generalized eigenvalue problems. *SIAM Journal on Scientific Computing*, 19(5):1625–1645, September 1998. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/29975>.
- Zingg:1996:HAF** David W. Zingg, Harvard Lomax, and Henry Jurgens. High-accuracy finite-difference schemes for linear wave propagation. *SIAM Journal on Scientific Computing*, 17(2):328–346, March 1996. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/26717>.
- Zeng:2013:UFD** Fanhai Zeng, Changpin Li, Fawang Liu, and Ian Turner. The use of finite difference/element approaches for solving the time-fractional subdiffusion equation. *SIAM Journal on Scientific Computing*, 35(6):A2976–A3000, 2013. CODEN SJOCE3.

ISSN 1064-8275 (print), 1095-7197 (electronic).

Zeng:2015:NAT

[ZLLT15]

Fanhai Zeng, Changpin Li, Fawang Liu, and Ian Turner. Numerical algorithms for time-fractional subdiffusion equation with second-order accuracy. *SIAM Journal on Scientific Computing*, 37(1): A55–A78, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2012:MPS

[ZLS12]

Xiangxiong Zhang, Yuanyuan Liu, and Chi-Wang Shu. Maximum-principle-satisfying high order finite volume weighted essentially nonoscillatory schemes for convection-diffusion equations. *SIAM Journal on Scientific Computing*, 34(2):A627–A658, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zheng:2015:NHO

[ZLTA15]

Minling Zheng, Fawang Liu, Ian Turner, and Vo Anh. A novel high order space-time spectral method for the time fractional Fokker-Planck equation. *SIAM Journal on Scientific Computing*, 37(2):A701–A724, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2018:SCP

[ZLWZ18]

Junyu Zhang, Haoyang Liu, Zaiwen Wen, and Shuzhong Zhang. A sparse completely positive relaxation of the modularity maximization for community detection. *SIAM Journal on Scientific Computing*, 40(5):A3091–A3120, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhao:2018:CSI

[ZLY⁺18]

Meng Zhao, Xiaofan Li, Wenjun Ying, Andrew Belmonte, John Lowengrub, and Shuwang Li. Computation of a shrinking interface in a Hele-Shaw cell. *SIAM Journal on Scientific Computing*, 40(4):B1206–B1228, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2022:LII

[ZLZ22]

Qifeng Zhang, Lingling Liu, and Zhimin Zhang. Linearly implicit invariant-preserving decoupled difference scheme for the rotation-two-component Camassa-Holm system. *SIAM Journal on Scientific Computing*, 44(4):A2226–A2252, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1452020>.

- [ZMC94] **Zachary:1994:HOG**
 Andrew L. Zachary, Andrea Malagoli, and Phillip Colella. A higher-order Godunov method for multidimensional ideal magnetohydrodynamics. *SIAM Journal on Scientific Computing*, 15(2):263–284, March 1994. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZMD22] **Zhang:2022:GPS**
 Ruda Zhang, Simon Mak, and David Dunson. Gaussian process subspace prediction for model reduction. *SIAM Journal on Scientific Computing*, 44(3):A1428–A1449, ??? 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432739>.
- [ZMK17] **Zeng:2017:GSC**
 Fanhai Zeng, Zhiping Mao, and George Em Karniadakis. A generalized spectral collocation method with tunable accuracy for fractional differential equations with endpoint singularities. *SIAM Journal on Scientific Computing*, 39(1):A360–A383, ??? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZMqCS21] **Zhang:2021:EMA**
 Yongwei Zhang, Chupeng Ma, Li qun Cao, and
- [ZMS10] **Zhao:2010:AFE**
 Xuying Zhao, Shipeng Mao, and Zhongci Shi. Adaptive finite element methods on quadrilateral meshes without hanging nodes. *SIAM Journal on Scientific Computing*, 32(4):2099–2120, ??? 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZMS21] **Zhang:2021:SEN**
 Lei-Hong Zhang, Xijun Ma, and Chungun Shen. A structure-exploiting nested Lanczos-type iteration for the multiview canonical correlation analysis. *SIAM Journal on Scientific Computing*, 43(4):A2685–A2713, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZN05] **Zhang:2005:NFE**
 Zhimin Zhang and Ahmed Naga. A new finite element gradient recovery method: Superconvergence property. *SIAM Journal on Scientific Computing*, 26(4):1192–
- Dongyang Shi. Efficient multiscale algorithms for simulating nonlocal optical response of metallic nanostructure arrays. *SIAM Journal on Scientific Computing*, 43(4):B907–B936, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

- 1213, July 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/40283>. [ZNZ16]
- Zahm:2016:IIO**
- [ZN16] Olivier Zahm and Anthony Nouy. Interpolation of inverse operators for preconditioning parameter-dependent equations. *SIAM Journal on Scientific Computing*, 38(2):A1044–A1074, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZP18]
- Zepeda-Nunez:2018:NDD**
- [ZND18] Leonardo Zepeda-Núñez and Laurent Demanet. Nested domain decomposition with polarized traces for the 2D Helmholtz equation. *SIAM Journal on Scientific Computing*, 40(3):B942–B981, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZP20]
- Zhou:2014:MDL**
- [ZNX14] Tao Zhou, Akil Narayan, and Zhiqiang Xu. Multivariate discrete least-squares approximations with a new type of collocation Grid. *SIAM Journal on Scientific Computing*, 36(5):A2401–A2422, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZPE12]
- Zepeda-Nunez:2016:FAB**
- Leonardo Zepeda-Núñez and Hongkai Zhao. Fast alternating BiDirectional preconditioner for the 2D high-frequency Lippmann–Schwinger equation. *SIAM Journal on Scientific Computing*, 38(5):B866–B888, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhao:2018:SDG**
- Lina Zhao and Eun-Jae Park. A staggered discontinuous Galerkin method of minimal dimension on quadrilateral and polygonal meshes. *SIAM Journal on Scientific Computing*, 40(4):A2543–A2567, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhao:2020:SCC**
- Lina Zhao and Eun-Jae Park. A staggered cell-centered DG method for linear elasticity on polygonal meshes. *SIAM Journal on Scientific Computing*, 42(4):A2158–A2181, 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zivari-Piran:2012:AFO**
- Hossein Zivari-Piran and Wayne H. Enright. Accurate first-order sensitivity analysis for delay differential equations. *SIAM Journal on*

- Scientific Computing*, 34(5): A2704–A2717, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZRTK12]
- [ZQ17] Jun Zhu and Jianxian Qiu. A new type of modified WENO schemes for solving hyperbolic conservation laws. *SIAM Journal on Scientific Computing*, 39(3): A1089–A1113, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZS99]
- [ZQ18] Jun Zhu and Jianxian Qiu. New finite volume weighted essentially nonoscillatory schemes on triangular meshes. *SIAM Journal on Scientific Computing*, 40(2):A903–A928, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZRK15] Mengdi Zheng, Boris Rozovsky, and George E. Karniadakis. Adaptive Wick–Malliavin approximation to nonlinear SPDEs with discrete random variables. *SIAM Journal on Scientific Computing*, 37(4): A1872–A1890, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Zhang:2012:MWC] Z. Zhang, B. Rozovskii, M. V. Tretyakov, and G. E. Karniadakis. A multi-stage Wiener chaos expansion method for stochastic advection-diffusion-reaction equations. *SIAM Journal on Scientific Computing*, 34(2): A914–A936, 2012. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Zha:1999:UPL] Hongyuan Zha and Horst D. Simon. On updating problems in latent semantic indexing. *SIAM Journal on Scientific Computing*, 21(2): 782–791, March 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/32926>.
- [Zhuang:2002:SEI] Yu Zhuang and Xian-He Sun. Stabilized explicit-implicit domain decomposition methods for the numerical solution of parabolic equations. *SIAM Journal on Scientific Computing*, 24(1):335–358, January 2002. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/38475>.

- Zhang:2003:HOW**
- [ZS03] Yong-Tao Zhang and Chi-Wang Shu. High-order WENO schemes for Hamilton–Jacobi equations on triangular meshes. *SIAM Journal on Scientific Computing*, 24(3):1005–1030, May 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39679>.
- Zou:2004:RVR**
- [ZS04] Gang Zou and Robert D. Skeel. Robust variance reduction for random walk methods. *SIAM Journal on Scientific Computing*, 25(6):1964–1981, November 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/42402>.
- Zhang:2014:FLF**
- [ZS14] Hong Zhang and Adrian Sandu. FATODE: a library for forward, adjoint, and tangent linear integration of ODEs. *SIAM Journal on Scientific Computing*, 36(5):C504–C523, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2018:NLM**
- [ZS18] Lei-Hong Zhang and Chun-gen Shen. A nested Lanczos method for the trust-region subproblem. *SIAM Journal on Scientific Computing*, 40(4):A2005–A2032, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhao:2023:SMC**
- [ZS23] Lina Zhao and Shuyu Sun. A strongly mass conservative method for the coupled Brinkman–Darcy flow and transport. *SIAM Journal on Scientific Computing*, 45(2):B166–B199, 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M145700X>.
- Zhang:2016:HOI**
- [ZSB16] Hong Zhang, Adrian Sandu, and Sébastien Blaise. High order implicit-explicit general linear methods with optimized stability regions. *SIAM Journal on Scientific Computing*, 38(3):A1430–A1453, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhou:2010:CUM**
- [ZSD+10] Min Zhou, Onkar Sahni, Karen D. Devine, Mark S. Shephard, and Kenneth E. Jansen. Controlling unstructured mesh partitions for massively parallel simulations. *SIAM Journal on Scientific Computing*, 32(6):

3201–3227, 2010. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhou:2021:NHT

[ZSPL21]

Shenglong Zhou, Meijuan Shang, Lili Pan, and Mu Li. Newton hard-thresholding pursuit for sparse linear complementarity problem via a new merit function. *SIAM Journal on Scientific Computing*, 43(2):A772–A799, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zampini:2017:MBD

[ZT17]

Stefano Zampini and Xuemin Tu. Multilevel balancing domain decomposition by constraints deluxe algorithms with adaptive coarse spaces for flow in porous media. *SIAM Journal on Scientific Computing*, 39(4):A1389–A1415, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zeng:2018:NCS

[ZTBK18]

Fanhai Zeng, Ian Turner, Kevin Burrage, and George Em Karniadakis. A new class of semi-implicit methods with linear complexity for nonlinear fractional differential equations. *SIAM Journal on Scientific Computing*, 40(5):A2986–A3011, 2018. CODEN SJOCE3. ISSN

1064-8275 (print), 1095-7197 (electronic).

Zemaityte:2019:FFS

Mante Zemaityte, Françoise Tisseur, and Ramaseshan Kannan. Filtering frequencies in a shift-and-invert Lanczos algorithm for the dynamic analysis of structures. *SIAM Journal on Scientific Computing*, 41(3):B601–B624, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhuk:2016:STP

[ZTM⁺16]

Sergiy Zhuk, Tigran T. Tchakian, Stephen Moore, Rodrigo Ordóñez-Hurtado, and Robert Shorten. On source-term parameter estimation for linear advection-diffusion equations with uncertain coefficients. *SIAM Journal on Scientific Computing*, 38(4):A2334–A2356, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2014:RSG

Z. Zhang, M. V. Tretyakov, B. Rozovskii, and G. E. Karniadakis. A recursive sparse Grid collocation method for differential equations with white noise. *SIAM Journal on Scientific Computing*, 36(4):A1652–A1677, 2014. CODEN SJOCE3. ISSN

- 1064-8275 (print), 1095-7197 (electronic). [ZW94]
- [ZV05] Chengjian Zhang and Stefan Vandewalle. General linear methods for Volterra integro-differential equations with memory. *SIAM Journal on Scientific Computing*, 27(6):2010–2031, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/volume-27/art_60705.html. [Zhou:1994:RST]
- [ZV22] Hai Zhu and Shravan Veerapaneni. High-order close evaluation of Laplace layer potentials: a differential geometric approach. *SIAM Journal on Scientific Computing*, 44(3):A1381–A1404, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1423051>. [Zhao:2003:CDS]
- [ZVF18] Stefano Zonca, Christian Vergara, and Luca Formaggia. An unfitted formulation for the interaction of an incompressible fluid with a thick structure via an XFEM/DG approach. *SIAM Journal on Scientific Computing*, 40(1):B59–B84, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhu:2022:HOC]
- [ZW03] Shan Zhao and G. W. Wei. Comparison of the discrete singular convolution and three other numerical schemes for solving Fisher’s equation. *SIAM Journal on Scientific Computing*, 25(1):127–147, January 2003. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/39097>. [Zimmermann:2016:AGM]
- [ZW16] R. Zimmermann and K. Willcox. An accelerated greedy missing point estimation procedure. *SIAM Journal on Scientific Computing*, 38(5):A2827–A2850, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [Zhu:2021:NTC]
- [ZWG21] Hongqiang Zhu, Haiyun Wang, and Zhen Gao. A

- new troubled-cell indicator for discontinuous Galerkin methods using K -means clustering. *SIAM Journal on Scientific Computing*, 43(4): A3009–A3031, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWH⁺14] Wei Zhang, Han Wang, Carsten Hartmann, Marcus Weber, and Christof Schütte. Applications of the cross-entropy method to importance sampling and optimal control of diffusions. *SIAM Journal on Scientific Computing*, 36(6):A2654–A2672, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWH21] Chaojun Zhang, Xiaoqun Wang, and Zhijian He. Efficient importance sampling in quasi-Monte Carlo methods for computational finance. *SIAM Journal on Scientific Computing*, 43(1): B1–B29, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWP21] Lu Zhang, Siyang Wang, and N. Anders Petersson. Elastic wave propagation in curvilinear coordinates with mesh refinement interfaces by a fourth order finite difference method. *SIAM Journal on Scientific Computing*, 43(2): A1472–A1496, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWWZ21] Juan Zhang, Cheng Wang, Steven M. Wise, and Zhen-gru Zhang. Structure-preserving, energy stable numerical schemes for a liquid thin film coarsening model. *SIAM Journal on Scientific Computing*, 43(2): A1248–A1272, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWZ⁺13] Xi-Le Zhao, Wei Wang, Tie-Yong Zeng, Ting-Zhu Huang, and Michael K. Ng. Total variation structured total least squares method for image restoration. *SIAM Journal on Scientific Computing*, 35(6):B1304–B1320, 2013. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZWZ19] Qian Zhang, Lixiu Wang, and Zhimin Zhang. $H(\text{curl}^2)$ -conforming finite elements in 2 dimensions and applications to the quad-curl problem. *SIAM Journal on Scientific Computing*, 41(3):

- A1527–A1547, 2019. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). [ZYSL15]
- Zhang:2015:KSM**
- Lei-Hong Zhang, Wei Hong Yang, Chungen Shen, and Ren-Cang Li. A Krylov subspace method for large-scale second-order cone linear complementarity problem. *SIAM Journal on Scientific Computing*, 37(4):A2046–A2075, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhang:2021:AHB**
- [ZXY21] Lu Zhang, Liwei Xu, and Tao Yin. An accurate Hyper-Singular boundary integral equation method for dynamic poroelasticity in two dimensions. *SIAM Journal on Scientific Computing*, 43(3):B784–B810, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zygalakis:2011:EAM**
- [Zyg11] K. C. Zygalakis. On the existence and the applications of modified equations for stochastic differential equations. *SIAM Journal on Scientific Computing*, 33(1):102–130, 2011. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL http://epubs.siam.org/sisc/resource/1/sjoce3/v33/i1/p102_s1.
- Zhao:2016:ESN**
- [ZYLW16] Jia Zhao, Xiaofeng Yang, Jun Li, and Qi Wang. Energy stable numerical schemes for a hydrodynamic model of nematic liquid crystals. *SIAM Journal on Scientific Computing*, 38(5):A3264–A3290, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- Zhu:2005:NDA**
- [ZYZ05] Yong-Kang Zhu, Jun-Hai Yong, and Guo-Qin Zheng. A new distillation algorithm for floating-point summation. *SIAM Journal on Scientific Computing*, 26(6):2066–2078, November 2005. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/60200>.
- Zhang:2004:PMN**
- [ZZ04] Zhenyue Zhang and Hongyuan Zha. Principal manifolds and nonlinear dimensionality reduction via tangent space alignment. *SIAM Journal on Scientific Computing*, 26(1):313–338, January 2004. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <http://epubs.siam.org/sam-bin/dbq/article/41915>.

- [ZZ16] **Zhao:2016:SPF**
 Xuan Zhao and Zhimin Zhang. Superconvergence points of fractional spectral interpolation. *SIAM Journal on Scientific Computing*, 38(1):A598–A613, 2016. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZZ18] **Zhang:2018:FBA**
 Bo Zhang and Ruming Zhang. An FFT-based algorithm for efficient computation of Green’s functions for the Helmholtz and Maxwell’s equations in periodic domains. *SIAM Journal on Scientific Computing*, 40(3):B915–B941, 2018. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZZ22] **Zhang:2022:BDW**
 Zhengqi Zhang and Zhi Zhou. Backward diffusion-wave problem: Stability, regularization, and approximation. *SIAM Journal on Scientific Computing*, 44(5):A3183–A3216, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1447271>.
- [ZZK15] **Zeng:2015:GSC**
 Fanhai Zeng, Zhongqiang Zhang, and George Em Karniadakis. A generalized spectral collocation method with tunable accuracy for variable-order fractional differential equations. *SIAM Journal on Scientific Computing*, 37(6):A2710–A2732, 2015. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZZL22] **Zhang:2022:GRS**
 Zhenyue Zhang, Zheng Zhai, and Limin Li. Graph refinement via simultaneously low-rank and sparse approximation. *SIAM Journal on Scientific Computing*, 44(3):A1525–A1553, 2022. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1446459>.
- [ZzSpH14] **Zhao:2014:FOC**
 Xuan Zhao, Zhi zhong Sun, and Zhao peng Hao. A fourth-order compact ADI scheme for two-dimensional nonlinear space fractional Schrödinger equation. *SIAM Journal on Scientific Computing*, 36(6):A2865–A2886, 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [ZZWZ14] **Zhang:2014:GTO**
 Xin Zhang, Jinwei Zhu, Zaiwen Wen, and Aihui Zhou. Gradient type optimization methods for electronic struc-

ture calculations. *SIAM Journal on Scientific Computing*, 36(3):C265–C289, ??? 2014. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhao:2020:VTB

- [ZZY20] Jin Zhao, Zhimin Zhang, and Wen-An Yong. Vector-type boundary schemes for the lattice Boltzmann method based on vector-BGK models. *SIAM Journal on Scientific Computing*, 42(5):B1250–B1270, ??? 2020. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Zhang:2021:USP

- [ZZZ21] Yong Zhang, Yu Zhao, and Zhennan Zhou. A unified structure preserving scheme for a multispecies model with a gradient flow structure and nonlocal interactions via singular kernels. *SIAM Journal on Scientific Computing*, 43(3):B539–B569, ??? 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).