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## Title word cross-reference

$(\vartheta)$  [AK20a]. 1 [KLMZ21]. 2 [DFFS22, HM22]. 3 [FGOS20, FLH23, Han23, HJHUT20, KLMZ21].  $A$  [LWC23].  $C^1$  [CJZ22].  $\delta$  [HX20].  $\ell_2$  [GPHHA20].  $\ell_\infty$  [GPHHA20].  $\Gamma$  [GKMR22].  $H$  [WX20].  $H(\text{curl})$  [CFV23].  $H(\text{curl})$  [WYZ20b].  $H(\text{DIV})$  [Mu20].  $H^1$  [QW23].  $H^2$  [AP20].  $H^m$  [CHW22].  $H \in (0, 1)$  [ND22].  $hp$  [AH21, AP21a, AP21b, DMS21].  $L^2$  [AXSZ22, CSWY23, DST21].  $L^\infty$  [CMZ21].  $L^p$  [DST21].  $L_1$  [Mus20, NT21a].  $p$  [BHL21, CDCVV21, CFV23, KR23a, KR23b, KR23c, MPV20, WL20].  $\phi$  [DL20b].  $Q$  [GWY22].  $r$  [ARSY20].  $\theta$  [WZZ22].

**-Conforming** [CHW22]. **-Convergence** [GKMR22]. **-Curl** [WL20]. **-Dimensional** [HJHUT20]. **-Discontinuous** [DMS21]. **-FEM** [AP21a, AP21b, DL20b]. **-Field** [FGOS20]. **-Laplace-Type** [BHL21]. **-Laplacian** [CDCVV21]. **-Navier** [KR23a, KR23b, KR23c]. **-Norm** [QW23]. **-Projection** [DST21]. **-Robust** [CFV23, MPV20]. **-Singularities** [HX20]. **-stability** [AK20a, DST21]. **-Stable** [AP20, LWC23]. **-Tensor** [GWY22].

**2** [ARSY20].

**Absorption** [GSZ20]. **Acceleration** [BC22, BM22, EPRX20]. **Accuracy** [ARSY20, HKYY21, LAZ22, MR21, WZ23, YHLR22]. **Accurate**

[CS22a, EW21, EG22, FR21, LWZ20].  
**Acoustic** [ZWC20]. **Active** [LO23].  
**Adaptation** [CAGD22]. **Adaptive**  
[BLY21, BIP22, CN21, CM21, CLS23,  
EEST22, HAST22, HL23, MRV23, QZ20,  
WYZ20b, dVCN<sup>+</sup>23]. **Additive**  
[BJ22, CHS21, KLS20, Par20, YDS21].  
**adjoint** [CM21, LWZ20]. **Advancement**  
[AH21]. **Advection** [HZ20, MZZ22, SWZ20].  
**Affine** [BG20, EEST22]. **Agglomeration**  
[ABBV23]. **Agglomeration-Based**  
[ABBV23]. **Algebraic** [MPV20, Xia21].  
**Algorithm** [ARSY20, BdBEO21, BHYZ23,  
BC20, Col23, GW20, GANT20, QWL22,  
SSZ23, TWZZ23, ZRZ23]. **Algorithmic**  
[HHM<sup>+</sup>20]. **Algorithms**  
[BW20, CL21, CCW21, CDD<sup>+</sup>20, DH21,  
HPBL21, MR21, Ni21, SZ21a]. **Allen**  
[CGP20, JLQ22, ILTZ20]. **Alternative**  
[WR21]. **American** [DLZ20]. **AMF**  
[GPHHA20]. **AMF-W-Methods**  
[GPHHA20]. **Amplitude** [IG21].  
**Amplitude-based** [IG21]. **analogue**  
[AK20a]. **Analyses** [LET20]. **Analysis**  
[AGS21, AB20, BGNS20, BK21, BSWW22,  
BPS22, BH21, CJZ22, CH22a, CL21, CFV23,  
DN21, DEL21, DS20, DGL20, EH22,  
FGOS20, FA22, FGP21, Gal21, GHM21,  
GS23, GKS23, GMSZ22, GKMR22, GWY22,  
Guo21, Hal21, HY22, HN21, HS21, HPBL21,  
JZ21a, JK22, KR23a, KS20, KM20a, Kop20,  
KLMZ21, LS20a, LWS22, LZ23, LWWW22,  
LRK22, LZCZ22, LWXZ20, MSD22, MST22,  
MST20, MS20, Mus20, ND22, NR21, Otá22,  
Pap22, RS21a, Rub20, RN20, SGT20, SC23,  
Sun21, WLP21, Wan23, WYZ20a, WB21,  
WLF23, XZ22, YZZ20, ZZZ22b, ZN23,  
ZDMZ20, ZQ23, ZL21, ZW23, dVCN<sup>+</sup>23,  
vWR23]. **Anderson** [BC22, EPRX20].  
**Anisotropic**  
[AK20b, BJL23, CAGD22, Hal22].  
**Anisotropically** [ST22]. **Any**  
[AK20b, WHL21]. **AP** [PCQL21].  
**Application** [BCT21, CFV23, CMZ21,  
DH21, HLM22, JLY21, KN23, LZ23, PR22].  
**Applications**  
[CS23, GP22, JLM22, Kar21, LJL<sup>+</sup>21].  
**Applied** [BJ22, CMZ21, GANT20].  
**Applying** [VL23]. **Approach**  
[AHW23, CS22b, GKN21, Mai21].  
**Approaches** [GFSZ20]. **Approximants**  
[NT21a]. **Approximate**  
[Lab20, WLP21, Zha23]. **Approximated**  
[DXY22]. **Approximating**  
[CGR20, FL21, Ni21]. **Approximation**  
[AN21, AJH23, BPW23, BO20, BHL21,  
BG20, CC23, CS23, DLZ20, DH21, DSY21,  
DDO20, FLO20, Gaw20, GSW21, GPR20,  
HKYY21, KR23a, KR23b, KR23c, KLMZ21,  
LS20b, MSS20, Mus20, NT21b, PS20, PS21,  
PSS22, RSS22, WYZ20b, Xia21, ZSH20,  
ZZZ22b, ZW20a, ZW20b, ZDMZ20, dDFH23].  
**Approximations**  
[AP21a, AP21b, ADM17, ADM21, BR20b,  
BLV20, BDG23, CZZ22, DGL20, EW21,  
GS23, GMSZ22, GKMR22, GHM20, HL23,  
HK20, JZ21a, MSD22, MNO21, Wan23].  
**Arbitrary** [CHW22, CH22b, Han23, HX20,  
Kam21, LMN23]. **Area** [JSZ23, KYB23].  
**Area-Preserving** [JSZ23]. **Arising**  
[dDFH23]. **Arnoldi** [CCW21]. **Artificial**  
[DIL<sup>+</sup>20, JLY21, SWZ20]. **Assimilation**  
[GANT20]. **Assumptions** [Kam21].  
**Asymptotic** [GV20, GGHS22, GPR20].  
**Asymptotic-Preserving** [GV20].  
**Asymptotically** [CHJS21, LTTF21].  
**Asymptotically-Preserving** [CHJS21].  
**Attractors** [LYC23]. **Average** [YDS21].  
**Averaged** [WX20]. **Axisymmetric** [DN21].  
**B** [HHM<sup>+</sup>20]. **B-Splines** [HHM<sup>+</sup>20].  
**Backward** [KV22, WZZ22]. **Balance**  
[LWWW22]. **Banach** [MvdZ20]. **Barrier**  
[KM20a]. **Based**  
[AHW23, ABBV23, BGNS20, BdBEO21,  
BHYZ23, CFV23, CCL23, CLR23, CDD<sup>+</sup>20,  
DMS21, GW20, LL22a, MSD22, MRV23,  
PS21, Rub20, AF21, IG21, KS20, PCQL21].

**Batch** [JLL21]. **Bates** [BCT21]. **Bathymetry** [NPT22]. **BDF** [AK20a, ACYZ21, LWZ20, ILTZ20, LL22b]. **BDF2** [LIL22]. **BDF3** [LIL22]. **Beam** [QS21]. **Beavers** [SSZ23]. **Behavior** [CCHHK20, MPV20]. **Bellman** [CFE20, FL21]. **Besov** [WSH20]. **Best** [DH21, NT21a]. **Between** [SZ21a, GB20]. **Bi** [CP23]. **Bi-Laplacian** [CP23]. **Bianchi** [HLM22]. **Biharmonic** [DMS21, DE22, MSS20, YZ20]. **Biomaterials** [GKMR22]. **Biot** [GVMRBV23]. **Bitemperature** [ADBP22]. **Block** [LWC23]. **Blow** [KM20b]. **Blow-Up** [KM20b]. **Boltzmann** [DEL21, HQY21, PR22]. **Borrvall** [Pap22]. **Bound** [SX20b, CS22b]. **Boundary** [AHW23, BFS20, CMZ21, DFFS22, GZ21, GMSZ22, HJHUT20, HS21, JK22, KN20, Met21, NPT22, NH20, SBL22, SWZ20, WM23, YHLR22]. **Bounded** [HW22, LM22b, QS21, ZW22]. **Bounds** [BCY21, BCF22, CZZ20, CP23, FV23, GO23, HM22, Kam21, KRS<sup>+</sup>21, KM20b, WR21]. **Branching** [SX20a]. **Brezzi** [AK20b]. **Brinkman** [Mu20]. **Brownian** [FLO20]. **Bubble** [BV22]. **Bubble-Enriched** [BV22].

**C** [ALOS23]. **Cahn** [CSWY23, CHSZ23, CGP20, CHS21, JLQ22, ILTZ20, Met21, QW20]. **Can** [CZZ20]. **Cardinality** [BC20]. **Carleman** [BdBEO21]. **Carleman-Based** [BdBEO21]. **Carlo** [FA22, GKS23, HAST22, HZW23, KVM22, SSX23]. **Case** [CL21, GHM20]. **Cauchy** [BGJ22]. **Cell** [GKMR22]. **Cell-Induced** [GKMR22]. **Central** [WJS23]. **Chains** [BCT21]. **Changing** [CLR23]. **Chaotic** [LWXZ22]. **Characteristic** [MZZ22]. **Characteristics** [Sun21]. **Characteristics-Mixed** [Sun21]. **Charged** [WZ21]. **Charged-Particle** [WZ21]. **Chebyshev** [CHS20, Huy22, SST<sup>+</sup>20, Wan23].

**Chemotaxis** [FHW21]. **Chemotaxis-Stokes** [FHW21]. **Choice** [KR20]. **CIP** [ZW23]. **CIP-FEM** [ZW23]. **Class** [CT21, HS21, Lab20, LWZ20, NPT22, SX20b]. **Classes** [AN21]. **Classical** [CS22a, FV23]. **Close** [ARSY20]. **Closed** [BL23, BJL23, Li21]. **Coefficient** [BJ22, JZ21a]. **Coefficients** [CLR23, Hu21, Mai21]. **Coercive** [WL23]. **Collocation** [AB20, CL20, CCL23, EEST22, FLM21, LL22a, LTTF21]. **Compact** [AKM23, CGR20]. **Compact-Equivalent** [AKM23]. **Comparison** [GB20]. **Compatible** [BD23, LTTF21, Geo21]. **Complex** [AKM23, ACW21, DH21, Hal21, Hal22]. **Complexes** [HLM22, HZZ22]. **Complexity** [JK22]. **Complicated** [Zha23]. **Compressibility** [JLY21]. **Compressible** [LS22]. **Compression** [DIL<sup>+</sup>20, FP20]. **Computation** [ACW21, DH20, Geo21, HHM<sup>+</sup>20, Huy22, LWXZ22, Sto20]. **Computational** [GO23, HP20, L JL<sup>+</sup>21]. **Computations** [Col23]. **Compute** [CZZ20]. **Computing** [AB20, Col22, LWXZ20]. **concept** [AK20a]. **Conditions** [BFS20, DNT22, GSZ20, HS21, JK22, KN20, Met21, NPT22, NH20, Otá22, SBL22, SSZ23, SWZ20]. **Conductor** [RS21a]. **Conductor-like** [RS21a]. **Conforming** [BDL20, CJZ22, CHW22, CH22b, FK21, HLM22, KK20]. **Congested** [PS22]. **Connections** [SZ21a]. **Conservation** [AXSZ22, BR20a, FR21, FMR22, LZM<sup>+</sup>20, LLS21, PS20]. **Conservations** [WZ23]. **Conservative** [CDP22, DWW22]. **Conserving** [AP21a, AP21b, AP22, GLS20, MCL20, FLM21]. **Consistency** [MT20, YZZ20]. **Constant** [Gal21, Sto20]. **Constituted** [FGOS20]. **constrained** [GZ21, HW21]. **Constraints** [BPW23]. **Constructing** [CS22b]. **Continuation** [BDE21]. **Continuous**

[AHV22, BSWW22, LET20]. **Continuum** [RS21a]. **Contraction** [dVCN<sup>+</sup>23]. **Contractivity** [SZ20]. **Control** [BHYZ23, CC23, CL21, CMZ21, CLR23, Col22, DH21, GO21, GMSZ22, HPBL21, LSTY21, MK20, MU22, MST22, Otá22]. **Control-Based** [CLR23]. **Convected** [MNO21]. **Convection** [CCHHK20, CJZ22, MST22, WX20, WLF23, ZSH20, ZRZ23]. **Convergence** [AP21b, ALW21, AB20, AKM23, BR20a, BL23, BLM21, BR20b, BK21, BJ22, BCF23, BSWW22, BO20, BH21, BCT21, BDG23, CL21, CAGD22, CN21, CP23, CZZ22, CAS23, CHS21, DXY22, EEST22, EH22, EPRX20, FGK23, FKM22, FDvW21, FMR22, GPHHA20, GKMR22, GB20, GWY22, GLW22, HP20, Hu21, HQY21, HPBL21, JLL21, KR23a, KR23b, KR23c, KR20, Li20, Li21, LS22, LYC23, LWVW22, LZCZ22, LWXZ20, MS23, NSD22, ND22, Otá22, QW23, SGT20, SC23, WYZ20a, WSH20, WR21, Xia21, XZ22, YZZ20, YC21, ZWC20, Zha22, ZN23]. **Convergent** [CG20, JZ21b, LWX20, LWXZ22, Met21, NRY22]. **Converging** [EPRX20]. **Convex** [BLV20, BC20, CT21, KR20, Par20, SZ20]. **Convexity** [JSZ23]. **Convexity-Preserving** [JSZ23]. **Convolution** [LM22a]. **Cook** [QW20]. **Correction** [Lab20]. **Corresponding** [MPV20]. **Corrigendum** [ADM21]. **Countably** [PSS22]. **Coupled** [CS22c, KLMZ21, vWR23]. **Coupling** [BJMO22, DFFS22, GHM21, KV22, ZCPZ21]. **Covariances** [BGNS20]. **Crank** [AGS21, JLY21, SR20]. **Cross** [BPS22, CG20, DNT22]. **Cross-Diffusion** [BPS22, CG20]. **Cross-Points** [DNT22]. **Crowd** [LMSS20]. **Crystalline** [BO20]. **Crystals** [GWY22, NRY22]. **Cube** [MSS20]. **Curl** [CFV23, WL20, WX20]. **Curvature** [BL23, DN21, DN23, EG22, Gaw20, Li21]. **Curve** [JSZ23, Li20, YC21]. **Curved**

[AW20, AJH23, DFFS22, GHM20, NO21, WM23]. **Curves** [BJL23, SJ21].

## D

[DFFS22, FLH23, HM22, Han23, KLMZ21]. **Darcy** [FA20, JLY21, SSZ23, ZCPZ21]. **Data** [CDD<sup>+</sup>20, Col23, DH20, DSY21, DGL20, FHK22, GANT20, Gla20, HL23, LM22a, LLMR23, LWZ23, bLWZ21, LS20b]. **Data-Based** [CDD<sup>+</sup>20]. **Data-Driven** [Col23]. **Decay** [WS23]. **decaying** [ALW21]. **Decomposition** [AFB<sup>+</sup>21, DNT22, GSZ20, Hu21, KRS<sup>+</sup>21, LS20b, MS21, NR21, RS21a, SSZ23, Zha23]. **Deconvolution** [Lab20]. **Decoupled** [FHW21, ZRZ23]. **Decoupling** [LUZ20]. **Decreasing** [JSZ23]. **Deep** [AN21, DGYZ22, GHLY23, HPBL21, MS23, MR21]. **Defect** [BO20]. **Defected** [YHLR22]. **Defined** [DL20b, SJ21]. **Deformations** [RSS22]. **Degenerate** [CT21, DE20]. **Degree** [GGPS21]. **Densities** [GKS23]. **Density** [GHLY23, KN23]. **Dependent** [GVMRBV23, HK20, KS20]. **Derivative** [BBH22, DGG20, EW21, GAJN23, KM20a, MNO21]. **Descent** [JLM22]. **Design** [MSD22]. **Detailed** [LWVW22]. **Deterministic** [GFSZ20]. **Deviations** [CHJS21]. **DG** [ZCPZ21]. **Diagonalization** [GW20]. **Diagonalization-Based** [GW20]. **Difference** [AF21, AGS21, AY20, DN21, IDzSW22, FL21, FLH23, KRS<sup>+</sup>21, MNO21, MSS20, RN20, SBL22, WK23, ZW22, Zou23]. **Difference-Discontinuous** [WK23]. **Differential** [AB20, EEST22, GNS20, GHM20, GLS23, HT20, HK20, LL22a, LZ23, ILLL23, MS23, OSV23, SZ21a, WZZ22]. **Diffraction** [HN21]. **Diffusion** [AHW23, BZ21, BJL23, BJ22, BPS22, BCT21, CK20, CG20, CCHHK20, CJZ22, CCL23, DEL21, DL20a, EEST22, GVMRBV23, HZ20, HLTW21, JZ21a, KVM22, KV22, KR23d, LMSS20, LTTTF21, LWVW22, MZZ22, MST22, Mus20, NSD22,

ND22, SWZ20, WR21, WX20, ZZZ22b, ZW20a, ZW20b, ZDMZ20]. **Diffusions** [GHLY23]. **Diffusivity** [LWXZ20]. **Dimension** [CHW22, CH22b, HO20]. **Dimensional** [ADBP22, BPP20, GV20, HJHUT20, HK20, JLM22, KLMZ21, LWX20, PS21, PSS22, QS21, ZWC20]. **Dimensions** [BLY21, HZZ22, KN23, Led21, SSX23, WHL21, IG21]. **Diminishing** [CG20]. **Dirac** [BCY21]. **Direct** [CP23]. **Dirichlet** [CMZ21, GMSZ22, Zha23]. **Dirichlet-to** [Zha23]. **Discontinuities** [ARSY20]. **Discontinuous** [AXSZ22, AM22, BR20a, BCF23, CDG23, Che21, CDP22, CHSZ23, CS22c, DMS21, DS20, DWW22, FHN23, GM22, HX20, KR23a, KR23b, KR23c, KK20, KR23d, LET20, LR20, LZM<sup>+</sup>20, LLS21, Pap22, WK23, WJS23, XSZ20]. **Discontinuous-Galerkin-in-Time** [CS22c]. **Discovery** [DGYZ22, KD21]. **Discrepancy** [MR21]. **Discrete** [AM22, ADBP22, BR20b, CHKL22, DN23, GHM21, GZ21, GV20, GWY22, Guo21, Kar21, KN20, LYC23, ILL23, LZCZ22, NPT22, QW20, YC21, ZZZ22b]. **Discrete-Time** [LYC23]. **Discretization** [ABB<sup>+</sup>21, BGJ22, BPS22, Che21, CHS21, DL20a, GS21, HW22, LSTY21, LMSS20, MvdZ20, SR20, YZZ20, ZZZ22a]. **Discretizations** [CFV22, DRV21, DMS21, GGPS21, MST20, RN20]. **Discretized** [FM21]. **Disparate** [JLL21]. **Dispersion** [ZW23]. **Dissipative** [GW20, SX20b]. **Distributed** [HMO22, bLWZ21]. **Distribution** [GKS23]. **div** [CH22b, WX20]. **div-** [CH22b]. **divdiv** [CH22b, HLM22]. **divdiv-Conforming** [CH22b]. **Divergence** [BDL20, FK22, Gal21, Han23, KK20, LS22, NO21, VL23, WHL21]. **Divergence-Conforming** [BDL20, FK22, KK20]. **Divergence-Free** [Han23, LS22, WHL21, NO21]. **Domain** [AFB<sup>+</sup>21, AJH23, BK21, DNT22, GSZ20, RS21a, SSZ23, WYZ20a, vWR23]. **Domains** [AJH23, CC23, CFV20, DL20b, GHM20, HW22, KLMZ21, LWX20, LL22b, MZZ22, NO21, QS21, SJ21, SST<sup>+</sup>20, ST22, ZW22]. **Douglas** [AK20b]. **Downscaling** [GANT20]. **DP** [BPP20]. **Drift** [BJ22, BDG23, CCW22]. **Driven** [BH21, Col23, CHS21, NSD22, ND22, PSS22]. **DtN** [BLY21]. **Dual** [BBH22, CK20, WW20]. **Dynamic** [Met21]. **Dynamical** [Col23, DEL21, Guo21]. **Dynamics** [BCF22, DGYZ22, FV23, KD21, LZCZ22, WZ21, ZZZ22a]. **Dziuk** [BL23, Li20, Li21, YC21]. **Earth** [GP22]. **Edge** [WYZ20b]. **Effective** [LWXZ20]. **Efficiency** [HP20]. **Efficient** [BS22, Met21, PSS22, SSX23, WL23]. **Eigenstates** [ST22]. **Eigenvalue** [CZZ20, CP23, GLS23, HMO22, HP20, HT20, Kam21, LX23, RN20, Sch23, SC23]. **Eigenvalues** [GO23, GSW21]. **Einstein** [HLM22]. **Elastic** [BLY21, Bar20, CHH23, QS21, ZW22]. **Elasticity** [AKNY20, YLZ22, ZQ23]. **Electric** [HY22]. **Electromagnetic** [WYZ20a]. **Element** [AKNY20, ABBV23, AH21, AJH23, BL23, BLY21, BZ21, BJL23, BPW23, BLV20, BGJ22, BPP20, BDL20, BGHY22, BFS20, CGO20, CK20, CSWY23, CZZ20, CM21, CFV22, CZZ22, CHH23, CAS23, DFFS22, DL20b, DGL20, DWW22, ER20, ER21, FA20, FLM21, FLH23, GS23, GANT20, Geo21, GSW21, GLW22, Han23, HG22, HL23, HJHUT20, HLM22, HZZ22, JKVY23, JLWZ22, JSZ23, JZ21a, Kam21, LSTY21, Li20, LWX20, Li21, LAZ22, LZ23, LL22b, MCL20, MZZ22, MSD22, Met21, Mu20, MRV23, NRY22, QW20, QZ20, RSS22, Sto20, WW20, WYZ20b, WX20, WB21, WLF23, ZSH20, dDFH23]. **Elements** [AW20, BL23, BV22, CHW22, CH22b, Gaw20, Li21, NO21, WHL21]. **Elliptic** [BIP22, CM21, DHM23, DE20, EEST22, EH22, GHM20, GMP22, HL23, JZ21a,

Mai21, MK20, MS23, QZ20, SC23, WYZ20b]. **Embedded** [LR20, NWZ22]. **Energy** [ALW21, ACYZ21, AHW23, BLN21, CDCVV21, DWW22, FLM21, GMSZ22, GKMR22, GWY22, HLTW21, LSTY21, ILTZ20, LMN23, MCL20, PCQL21, RK20, SX20b, SWW22, WB21]. **Energy-based** [PCQL21]. **Energy-conserving** [FLM21]. **Energy-decaying** [ALW21]. **Energy-Preserving** [WB21]. **Energy-Stable** [GWY22]. **Enhanced** [DGG20, PCQL21]. **Enhancing** [MR21]. **Enriched** [BV22, YLZ22]. **Ensemble** [AHV22, BSWW22, CST20, JLY21, SSZ23]. **Entropic** [CHKL22]. **Entropy** [BPS22, CHKL22, CG20]. **Equation** [ABB<sup>+</sup>21, ALW21, AGS21, BLM21, BCY21, BCF22, BK21, BDL20, BS22, BDE21, CS22a, CFV22, CMZ21, CDP22, CHSZ23, CHS21, DFFS22, DNT22, DEL21, DWW22, FLM21, Geo21, GM22, GSZ20, GPR20, HQY21, JLWZ22, KK20, KLS20, KM20b, LY20, ILTZ20, LLZZ22, MZZ22, MST22, MSS20, Mus20, NSD22, ND22, NWZ22, PR22, QW23, SX20a, Sto20, WK23, WB21, YZ20, YHLR22, ZW22, ZW20a, ZW23, Zou23, QW20]. **Equations** [AB20, ADM17, ADM21, Avi23, BR20b, BM22, CCHHK20, CJZ22, CFF20, CN21, CFV22, Che21, DH22, DL20a, DE20, DS20, IDzSW22, DGL20, ER21, EEST22, EH22, FHW21, FL21, FLH23, FM21, GS22, GS23, GANT20, GHM20, GLS23, GO20, HM22, Han23, HZ20, HX20, HS20, Hu21, HS21, HK20, IG21, JKVY23, Kam21, Kar21, KN20, KS20, KV22, Kop20, KR23d, LL22a, Led21, LWX20, LS20a, LWZ20, LAZ22, LM22a, LM22b, LWS22, LMS22, LLMR23, LWZ23, LWC23, MS23, Met21, NPT22, OSV23, PS22, QS21, QZ20, SGT20, SZ21a, SX20b, SR20, SWZ20, WZ20, WW20, WZZ22, WS23, WJS23, XSZ20, ZZZ22b, ZW20b, ZDMZ20]. **Equilibrated** [CFV23]. **Equivalent** [AKM23]. **Ergodic** [CL21]. **Ericksen** [NRY22]. **Erratum** [BL23]. **Error** [ALOS23, AXSZ22, AGS21, ADM17, ACW21, BCY21, BCF22, BPW23, BLV20, BV22, BBH22, CSWY23, CDG23, CH22a, CFV22, CMZ21, CGP20, Col22, DLZ20, DN21, DEL21, DGG20, DRV21, DMS21, DS20, DGYZ22, FV23, FHW21, FGP21, Gal21, GANT20, GGPS21, GO21, HW22, HZ20, HZW23, HS21, JZ21a, KS20, KK20, KRS<sup>+</sup>21, KM20a, Kop20, KR23d, KM20b, LS20a, LWS22, MST22, MS20, MPV20, Mus20, NT21a, NR21, Otá22, QW20, WLPU21, WL20, WZ21, Wan23, WR21, WB21, XSZ20, ZZZ22a, ZW20a, ZDMZ20, Zou23, dVCN<sup>+</sup>23, vWR23, ADM21, JK22]. **Errors** [BIP22]. **Estimate** [AXSZ22, BBH22, FHW21, XSZ20, ZW20a]. **Estimates** [AM22, ADM17, ADM21, BW22, BPW23, BLV20, BV22, BLN21, CGO20, CSWY23, CDG23, CFV22, CMZ21, CGP20, DLZ20, DRV21, DMS21, GANT20, GO21, HW22, HZ20, HG22, KR23d, MST22, QW20, SR20, WZ21, ZZZ22a]. **Estimation** [BIP22, CDD<sup>+</sup>20, DGYZ22, GHLY23, KN23, WL20, Zou23]. **Estimator** [GGPS21, KK20, MPV20]. **Euler** [AGS21, ADBP22, BJ22, KLS20, ZZZ22a]. **Eulerian** [HX20, LMN23, vWR23]. **Evaluation** [SWZ20]. **Events** [WLPU21]. **Evolutionary** [WS23]. **Evolutions** [MS20]. **Evolving** [LL22b]. **Exactly** [LS22]. **Expanding** [ST22]. **Expansion** [CGR20, FDvW21, HN21, SGT20]. **Expansions** [ZWC20]. **Expected** [FP20]. **Explicit** [AH21, CFV22, CAS23, HM22, MST20, OSV23, RK20, AK20a, LWZ20]. **Exponential** [DH22, HKYY21, JLQ22, LM22a, LMS22, LLMR23, LWZ23, MS23, NWZ22, OSV23, ZWC20, Zha22]. **Exponential-Type** [NWZ22]. **Extension** [HHM<sup>+</sup>20]. **Extensions** [Hu21]. **Exterior** [DFFS22]. **Extrapolation** [ZEG20]. **Extrinsic** [CL20].

**Face** [VL23]. **Factorization** [ST22].  
**Family** [HZZ22]. **Fanbeam** [BH21]. **Fast** [DL20a, QS21, SST<sup>+</sup>20, SWZ20, ZDMZ20].  
**FBSDEs** [YZZ20]. **FEAST** [HT20]. **FEM** [AP21a, AP21b, AP22, BIP22, CN21, DL20b, FKM22, FHW21, ZW23]. **FEMs** [Sun21]. **FETI** [BPP20]. **FETI-DP** [BPP20]. **Fibrous** [GKMR22]. **Field** [Avi23, CL21, FGOS20, HN21, Kar21, LS22, LJL<sup>+</sup>21, WZ21]. **Fifth** [HKYY21].  
**Fifth-Order** [HKYY21]. **Film** [FM21].  
**Filter** [QWL22]. **Filtered** [bLWZ21, WLF23]. **Filters** [FGK23]. **Finite** [AF21, AKNY20, AGS21, AY20, AH21, AJH23, BL23, BLY21, BZ21, BJL23, BPW23, BLV20, BDL20, BGHY22, BD23, CGO20, CK20, CSWY23, CG20, CCHHK20, CZZ20, CM21, CFV22, CH22b, CZ22, CHH23, CAS23, DN21, lDzSW22, DL20b, DGL20, ER20, ER21, FA20, FLM21, FL21, FLH23, FMR22, GS23, GANT20, Gaw20, Geo21, GSW21, GLW22, Han23, HL23, HLM22, HZZ22, HPBL21, JKVY23, JLWZ22, JSZ23, JZ21a, JZ21b, Kam21, KSG23, LSTY21, Li20, LWX20, Li21, LZ23, MCL20, MZZ22, MSD22, MT20, MNO21, Met21, Mu20, MRV23, MSS20, NRY22, QW20, QZ20, RN20, RSS22, SBL22, Sto20, WW20, WK23, WX20, WB21, WLF23, ZSH20, ZW22, Zou23, dDFH23, BGJ22, LL22b].  
**Finite-Difference** [SBL22].  
**Finite-Element** [AJH23]. **Finite-Volume** [JZ21b]. **First** [GS22, LJL<sup>+</sup>21, QZ20].  
**First-Order** [LJL<sup>+</sup>21, QZ20]. **Fixed** [BC22, EPRX20]. **Fixed-Point** [EPRX20].  
**Flow** [AFB<sup>+</sup>21, AP21a, AP21b, AP22, BL23, BW22, DN21, DN23, GLS20, GLW22, HP20, JSZ23, Li20, Li21, Sun21, YC21, GWY22].  
**Flows** [GAJN23, GMSZ22, JLQ22, Lab20, LWXZ20, LWXZ22, NR21, Rub20, ZEG20].  
**Fluid** [ALOS23, FK22, GP22, ZSH20, ZRZ23].  
**Fluid-Fluid** [ALOS23]. **Fluid-Structure** [FK22]. **Fluids** [FGOS20]. **Flux** [BR20a, BGHY22, CFV23, ER20].  
**Flux-Mortar** [BGHY22]. **Fluxes** [LZM<sup>+</sup>20]. **Fokker** [BS22, LLZZ22, WW20].  
**Followed** [GKS23]. **Forchheimer** [FA20, ZCPZ21]. **Forcing** [HL23]. **Form** [DWW22, LZ23, QZ20, WK23]. **Formulae** [KYB23]. **Formulation** [BHYZ23, BPS22, FGOS20, GS22, GVMRBV23, GLS20, Led21]. **Fourier** [HQY21, LET20, PR22, PS21, SST<sup>+</sup>20, ZL21]. **Fourier-Based** [PS21]. **Fourier-like** [SST<sup>+</sup>20]. **Fourier-Matching** [ZL21].  
**Fourth** [MZZ22, XSZ20]. **Fourth-Order** [MZZ22, XSZ20]. **Fractal** [JK22].  
**Fractional** [BLN21, BG20, lDzSW22, FKM22, GO21, HW22, HZ20, Kar21, KM20a, Kop20, KLS20, Mus20, NSD22, ND22, Otá22, SST<sup>+</sup>20, SSX23, WS23, ZW20a, ZW20b].  
**Fractional-Derivative** [KM20a]. **Fracture** [AFB<sup>+</sup>21, GHM21]. **Framework** [CS22c, LMN23, MG23, RS21b, XZ22, vWR23].  
**Free** [Han23, LS22, NRY22, PS22, WHL21, YZ20, YLZ22, dVCN<sup>+</sup>23, LLS21, NO21].  
**Free-Congested** [PS22]. **Frequency** [CFV22]. **Frequency-Explicit** [CFV22].  
**Friedrichs** [LZM<sup>+</sup>20]. **Frog** [JLY21]. **Front** [LWXZ22]. **Full** [BGJ22, Che21, CHS21, GAJN23]. **Fully** [BR20b, GWY22, Guo21, QW20, SSZ23, YC21, vWR23]. **Function** [ACW21, CC23, GNÖ23, Led21].  
**Functional** [AB20]. **Functions** [AY20, BCKS21, CS23, GKS23, Gla20, HO20, Huy22, IG21, KSG23, KM20a, MO21, PS21, PU22, SZ21a, Xia21].  
**Galerkin** [AXSZ22, AM22, ADM17, ADM21, BCF23, BPS22, BS22, CDG23, CJZ22, Che21, CDP22, CHSZ23, CS22c, DLZ20, DRV21, DMS21, DE22, DS20, FA20, FHN23, GS23, GM22, HZ20, HJHUT20, HX20, HQY21, KR23a,

KR23b, KR23c, KK20, KR23d, LET20, LR20, LZM<sup>+</sup>20, LLS21, MCL20, MST20, Mu20, MvdZ20, Pap22, PR22, SST<sup>+</sup>20, WW20, WK23, WJS23, XSZ20, YZ20, YLZ22]. **Galerkin-Mixed** [GS23]. **Galerkin/Hermite** [BCF23]. **Games** [CL21, LJL<sup>+</sup>21]. **Gamma** [NRY22]. **Gamma-Convergent** [NRY22]. **Gauge** [LWZ23]. **Gauge-Transformed** [LWZ23]. **Gauss** [FLM21, KSG23]. **Gaussian** [Gaw20, Huy22, NSD22, ND22, QS21]. **General** [Gla20, GNÖ23, Mai21, RS21b, ZEG20]. **Generalized** [CDP22, CAS23, GNS20, IG21, JLQ22, LZM<sup>+</sup>20, LWZ23, MSD22, MSS20]. **Generate** [MU22]. **Genetic** [CCW22]. **Genus** [DN21]. **Genus-0** [DN21]. **Geodesics** [ZN23]. **Geometric** [ABBV23, LRK22, WZ23, WJS23]. **Geometries** [BPV20]. **Geothermal** [QWL22]. **Gibbs** [CHKL22]. **Ginzburg** [GS23]. **Glaciology** [dDFH23]. **Global** [BLV20, HP20]. **Gordon** [BCF22, CS22a, MCL20]. **grad** [WX20, SGT20]. **Graded** [KM20a, Mus20, ZW20b]. **Gradient** [BHYZ23, BC20, CHH23, DL20a, HP20, HK20, JLM22, JLQ22, ILL23, Par20, SZ20, ZEG20]. **Gradient-Dependent** [HK20]. **Gradients** [GZ21]. **Green** [KN20, NPT22]. **Grid** [XZ22]. **Grids** [AKNY20, BGHY22]. **Gross** [HP20]. **Guaranteed** [CP23].

**Hamilton** [CFF20, FL21]. **Hamiltonian** [Ohs23]. **Harmonic** [BPW23, GLW22]. **HDG** [CMZ21, FK22, LRK22]. **Heat** [GLW22, KM20b]. **Hellan** [AW20, Led21]. **Helmholtz** [BDE21, CFV20, CAS23, DFFS22, DNT22, GSZ20, HM22, HS20, JLWZ22, LX23, MST20, ZW23]. **Hermite** [AF21, BCF23, KSG23, SGT20]. **Hermite-based** [AF21]. **Herrmann** [AW20, Led21]. **Heterogeneous** [CFV20, CAS23]. **Heuristic** [KR20].

**Hidden** [ZW20a]. **Hidden-Memory** [ZW20a]. **High** [ALOS23, AXSZ22, AH21, BL23, BDE21, CT21, DE22, DHM23, DE20, EW21, FLM21, Gaw20, Gla20, GGHS22, GMP22, HS21, HK20, JLWZ22, KN23, Lab20, LET20, Li21, LWC23, LZCZ22, Mai21, PS21, SJ21, WZ20, YHLR22, ZZZ22a, ZW22]. **High-Accuracy** [YHLR22]. **High-Dimensional** [HK20, PS21]. **High-Index** [LZCZ22, ZZZ22a]. **High-Order** [AH21, BL23, BDE21, DE22, DHM23, Gaw20, GMP22, HS21, LET20, LWC23, Mai21, SJ21, CT21, DE20, FLM21, Li21, WZ20]. **Higher** [DRV21]. **Highly** [WZ23]. **Hilliard** [CSWY23, QW20, CHSZ23, CHS21, Met21]. **Hiptmair** [Hu21]. **Hodge** [WB21]. **Hölder** [HW22]. **Homogeneous** [HQY21]. **Homogenization** [FGP21]. **Homographic** [DH21]. **Hood** [GS21]. **Horizon** [HPBL21]. **hp** [AP22]. **hp-FEM** [AP22]. **Hurst** [ND22]. **Hybrid** [BCT21, CT21, CFV20, DE22, ER20, GMP22, MS21]. **Hybrid-Mixed** [CFV20]. **Hybridizable** [CHSZ23, DS20]. **Hybridized** [BDE21]. **Hydrodynamic** [LWS22, LWX20]. **Hydrodynamics** [MT20]. **Hyperbolic** [DN23, HX20, LLS21, SBL22, XSZ20]. **Hyperinterpolation** [bLWZ21]. **Hypersingular** [WM23]. **Hypocoercivity** [Geo21]. **Hypocoercivity-compatible** [Geo21]. **Hysteresis** [PS20].

**Ideal** [WJS23]. **Identification** [JZ21a, ZZZ22b]. **II** [AP21b, BCKS21, CS22b, JK22, KR23b]. **III** [AP22, KR23c]. **III** [GB20]. **III-Posed** [GB20]. **IMEX** [GGHS22, HS21, LWS22]. **IMEX1** [PCQL21]. **IMEX1-LDG** [PCQL21]. **Immersed** [Guo21]. **Impedance** [GSZ20]. **Implementation** [AP22]. **Implicit** [BR20b, CDP22, GGHS22, Li20, LWZ20, LWC23, YC21, ZEG20, AK20a, LMS22].



**Implicit-explicit** [LWZ20, AK20a]. **Implicitly** [FGOS20, SJ21]. **Importance** [HZW23]. **Imposed** [GLS20]. **Imposition** [BFS20]. **Improved** [BCF22, DHM23, WR21]. **Improves** [EPRX20]. **Improving** [HKYY21]. **Including** [GAJN23]. **Incompressible** [FGOS20, GAJN23, Han23, NR21, Rub20, SR20, Sun21]. **Incremental** [MS20]. **Indefinite** [CM21]. **Independent** [Huy22, MS20]. **Index** [LZCZ22, ND22, ZZZ22a]. **Induced** [GKMR22]. **Inequalities** [WYZ20b]. **Inequality** [dDFH23]. **Inexact** [XZ22]. **Inextensible** [Bar20]. **Inf** [Pra20, Gal21]. **inf-sup** [Gal21]. **Infinite** [AF21, CS23, JLM22]. **Infinite-Dimensional** [JLM22]. **Inhibiting** [DGG20]. **Initial** [LM22a, NH20]. **Injection** [LRK22]. **Instationary** [GS22]. **Integral** [FKM22, GO20, HW22, KYB23, LM22b, SST<sup>+</sup>20, SSX23, WM23, YHLR22]. **Integration** [CLW21, CLS23, GKS23, IKM22, LTTF21, MO21]. **Integrator** [BLM21, DEL21, JLQ22, KLS20, LMS22, LWZ23, NWZ22]. **Integrators** [CS22a, DH22, Ohs23, RS21b, WZ23]. **Integro** [LZ23, ILL23, OSV23]. **Integro-Differential** [LZ23, ILL23, OSV23]. **Interacting** [JLL21, LWXZ22]. **Interaction** [ALOS23, DXY22, FK22]. **Interface** [CS22c, Guo21, SSZ23]. **Interface-Coupled** [CS22c]. **Interfaces** [ZW22]. **Interpolation** [AK20b, Bör22, GFSZ20]. **Interpolatory** [MG23, Pra20]. **Intervals** [CS23]. **Invariants** [IKM22, Ohs23]. **Inverse** [ACL20, BLX20, CZZ22, GB20, JLM22]. **Inversion** [AHV22, BSWW22, CST20]. **Involving** [HX20]. **Isogeometric** [BPV20, MST22]. **Isometric** [RSS22]. **Isoparametric** [LL22b]. **Itô** [GHLY23]. **Iterated** [Bör22]. **Iterations** [AHW23]. **Iterative** [LX23, MPV20]. **Jacobi** [CFF20, FL21]. **Johnson** [AW20, Led21]. **Johnson-like** [Led21]. **Joseph** [SSZ23]. **Jump** [BCT21, Hu21]. **Jump-Diffusion** [BCT21]. **Kalman** [AHV22, BSWW22, CST20]. **Kármán** [CN21]. **Kawasaki** [JZ21b]. **KdV** [LWZ23]. **Keller** [SX20b]. **Kernel** [CCL23, GB20, LTTF21]. **Kernel-Based** [CCL23]. **Kernels** [BG20]. **Kind** [LM22b, WYZ20b]. **Kinetic** [BS22, SGT20]. **Klein** [MCL20, BCF22, CS22a]. **Kolmogorov** [Geo21]. **Korobov** [KN23]. **Korteweg** [CDP22]. **KPP** [LWXZ22]. **Krylov** [AKM23, BCKS21]. **Kutta** [AXSZ22, GGHS22, OSV23, RK20, SZ20, SWW22, XSZ20]. **L2** [MG23, QW23]. **L2-Optimal** [MG23]. **L2-Type** [QW23]. **Lacking** [Pra20]. **Lagrange** [CS22b, DLZ20, KLMZ21, LWX20]. **Lagrangian** [CFF20, HX20, LMSS20, LMN23, MT20]. **Landau** [AGS21, GS23]. **Laplace** [BHL21, BG20]. **Laplacian** [BLN21, CP23, CDCVV21, FKM22, HW22, HMO22, SST<sup>+</sup>20, SSX23]. **Large** [BM22, CCHHK20, CHJS21, HS20, RSS22]. **Large-Scale** [BM22, RSS22]. **Lattice** [LYC23]. **Lavrentiev** [BGJ22]. **Law** [PS20]. **Laws** [AXSZ22, BR20a, FR21, FMR22, LZM<sup>+</sup>20, LLS21, SWW22]. **Lax** [LZM<sup>+</sup>20]. **Layer** [JLWZ22]. **Layered** [HN21, ZWC20]. **Layers** [BK21, ZSH20, Zha22, ZRZ23]. **LBB** [Sto20]. **LDG** [PCQL21]. **Leap** [JLY21]. **Leap-Frog** [JLY21]. **Leapfrog** [CHS20, CH22a, ZN23]. **Leapfrog-Chebyshev** [CHS20]. **Leapfrog-Type** [CH22a]. **Learning** [BHYZ23, CL21, DGYZ22, GHLY23, GB20, MR21]. **Least** [CCL23, GS22, HS20, LY20, QZ20, Sto20]. **Least-Squares** [CCL23, QZ20, Sto20].

**Leffler** [KLS20]. **LES-C** [ALOS23]. **Level** [DL20b, LX23, FA20]. **Level-Sets** [DL20b]. **Lifshitz** [AGS21]. **Liftings** [AP20]. **like** [Led21, RS21a, SST<sup>+</sup>20]. **Limit** [AF21, AHV22, BSWW22, CS22a, DEL21, DXY22]. **Limited** [MST22]. **Line** [GKN21, ZDMZ20]. **Linear** [AFB<sup>+</sup>21, BIP22, CHJS21, DEL21, DGYZ22, FHW21, FK22, GM22, IKM22, KD21, LMSS20, LYC23, MvdZ20, Ni21, SGT20, Sch23, SWW22, XSZ20, YLZ22, ZQ23]. **Linearizing** [HLM22, KN20, LWX20]. **Linearizing** [LUZ20]. **Linearly** [EPRX20, Huy22, Li20, YC21]. **Lines** [LMN23]. **Lipschitz** [AY20, HW22]. **Liquid** [GWY22, NRY22]. **Local** [BLV20, BLN21, CFV22, DXY22, FKM22, GSZ20, JK22, KR23a, KR23b, KR23c, KV22, LZM<sup>+</sup>20, MS20, MRV23, ZWC20, ZDMZ20]. **Localization** [NT21a, Wan23]. **Localized** [MS21]. **Locally** [MSD22, YHLR22]. **Locking** [YLZ22]. **Locking-Free** [YLZ22]. **Log** [CS23, NT21b]. **Logarithmic** [Xia21]. **Long** [BCF22, Geo21, LWZ20, WS23]. **Long-Time** [BCF22, WS23, Geo21, LWZ20]. **Lossy** [MST20]. **Low** [BCKS21, CS22a, DEL21, LMS22, MR21, NWZ22, RS21b]. **Low-Discrepancy** [MR21]. **Low-Rank** [BCKS21, DEL21]. **Low-Regularity** [LMS22, NWZ22]. **Lower** [AH21, CZZ20, CP23, CHH23, GO23, Kop20]. **Lower-Order** [CHH23]. **Lower-Triangular** [AH21]. **Lowest** [Sun21]. **Lowest-Order** [Sun21]. **lumped** [DE20]. **Lumping** [ER21]. **Lyapunov** [SZ21a].

**MAC** [LS20a]. **Machine** [BHYZ23, CL21]. **Magnetic** [BCY21, LS22, WZ21]. **Magneto** [LWX20, LWS22]. **Magneto-Hydrodynamic** [LWS22, LWX20]. **Magnetohydrodynamics** [BD23]. **Magnetostatic** [GGPS21]. **Manifolds** [CL20]. **Mapped** [SST<sup>+</sup>20]. **Maps** [BPW23, GLW22, WR21, Zha23]. **Marini** [AK20b]. **Markov** [BCT21]. **Maruyama** [BJ22]. **Mass** [AP21a, AP21b, AP22, AH21, CCW22, DE20, ER21, FLM21, GLS20]. **Mass-** [FLM21]. **Mass-lumped** [DE20]. **Matched** [BK21, JLWZ22, Zha22]. **Matching** [ZL21]. **Material** [CDCVV21]. **Matérn** [BGNS20]. **Matrix** [AH21, BCKS21, GHM21, GLS23]. **Maximal** [AM22]. **Maximization** [CDCVV21]. **Maximum** [HG22, ILTZ20]. **Maximum-Principle** [ILTZ20]. **Maxwell** [AJH23, CFV22, Che21, DS20, ER21, GO23, GSW21, HY22, Hu21, HLTW21, LX23, MCL20]. **Mean** [BL23, CL21, DN21, HO20, Li21, LJL<sup>+</sup>21]. **Means** [LLMR23]. **Measurable** [BJ22]. **Measure** [Col23, PSS22]. **Measure-Preserving** [Col23]. **Media** [DL20a, FA20, Sun21, ZWC20]. **Medium** [ACL20, FM21]. **Member** [Lab20]. **Memory** [ZW20a]. **Mesh** [ACL20, CAGD22]. **Meshes** [CDG23, CJZ22, ER20, Guo21, Kam21, KM20a, Mus20, QW23, YZ20, ZW20b]. **Meshfree** [HW21, LTTF21]. **Meshless** [CL20]. **Method** [AXSZ22, ALW21, ACYZ21, AKNY20, ABBV23, AW20, BL23, BLY21, BZ21, BJL23, BGJ22, BPP20, BDL20, BFS20, BDE21, CGO20, CK20, CHKL22, CJZ22, CCW22, CZZ20, CT21, CFV20, CDP22, CCL23, CHH23, CHS23, CAS23, CLR23, DFFS22, DHM23, DL20a, DL20b, DWW22, ER21, EH22, FA20, FL21, FLH23, FA22, FGP21, FDvW21, FMR22, FHN23, GANT20, GM22, GMP22, GO20, HZ20, HW21, HX20, HN21, HS20, HQY21, JKVY23, JLY21, JLWZ22, JSZ23, JLL21, KVM22, LL22a, LR20, Led21, Li20, LWX20, LY20, LUZ20, Li21, LAZ22, LLMR23, LX23, ILLL23, LL22b, LLS21, LMN23, LWXZ22, MZZ22, MU22, MRV23, Pap22, PCQL21, QS21,

QW23, RS21a, SC23, SSX23, Sto20, WW20, WK23, WYZ20a, WLF23, WM23, YZ20, YLZ22, ZW22, Zha23, ZCPZ21, ZQ23, ZL21]. **Method-of-Lines** [LMN23]. **Methods** [AM22, AY20, AB20, AH21, Avi23, BGNS20, BCY21, BCF22, BCKS21, BCF23, BM22, BGHY22, BS22, BPV20, CDG23, CH22a, CM21, CL20, CHJS21, CMZ21, DNT22, DE22, DS20, DGYZ22, ER20, EPRX20, FLM21, FR21, Geo21, GPHHA20, GGHS22, GB20, GLW22, Hal21, HG22, HJHUT20, KD21, KK20, KR23d, LET20, LZM<sup>+</sup>20, LWZ20, LM22b, LIL22, LZ23, LWC23, LJL<sup>+</sup>21, LRK22, LMN23, MCL20, MSD22, Mu20, MvdZ20, NRY22, NR21, OSV23, PR22, Par20, PS21, QW20, QZ20, RK20, Sch23, SZ20, SST<sup>+</sup>20, SWW22, WL23, WX20, WB21, XSZ20, XZ22, YDS21, AK20a]. **Metric** [CAGD22]. **MHD** [LS22, WJS23]. **Mindlin** [FHN23, GS21]. **Minimal** [BPV20]. **Minimization** [CT21, GKMR22, MS20, MvdZ20, MRV23, TWZZ23]. **Minimizations** [CFV23]. **Minimum** [TWZZ23]. **Minimum-Surface** [TWZZ23]. **MINRES** [FHK22]. **Miscible** [Sun21]. **Mittag** [KLS20]. **Mittag-Leffler** [KLS20]. **Mixed** [AP21a, AP21b, AP22, AKNY20, BGHY22, CM21, CFV20, CHH23, ER20, FA20, GS23, GKN21, GLS20, JKVY23, KYB23, KLMZ21, MvdZ20, MRV23, SSZ23, Sun21, WB21, ZQ23]. **Mixed-Dimensional** [KLMZ21]. **mKdV** [NWZ22]. **Model** [BCT21, BG20, CHH23, CDD<sup>+</sup>20, DIL<sup>+</sup>20, FA20, FK22, GV20, JLY21, LZ23, NRY22, Pra20, RS21a, SSZ23, ZSH20, ZRZ23, vWR23]. **Modeling** [ALOS23, GHM21, MG23]. **Models** [AFB<sup>+</sup>21, BG20, DXY22, GHM21, KS20, Lab20, ILLL23, MU22, WLPU21]. **Modified** [ACW21, GSW21]. **Molecular** [FV23]. **Moment** [PR22]. **Moments** [KYB23]. **Monolithic** [FK22]. **Monotone** [BR20a, EG22, HW22, MvdZ20]. **Monte** [FA22, GKS23, HAST22, HZW23, KVM22, SSX23]. **Morley** [CN21]. **Mortar** [BGHY22, JKVY23]. **Motion** [EG22, FLO20, LMSS20]. **Moving** [Guo21, SJ21, vWR23]. **mpEDMD** [Col23]. **Multidegree** [HHM<sup>+</sup>20]. **MultiDerivative** [GGHS22]. **MultiDimensional** [MK20]. **Multigrid** [ABBV23, LRK22]. **Multilevel** [GHM20, HAST22, HK20, MPV20]. **Multiple** [SSX23]. **Multiplier** [CS22b]. **Multipliers** [KLMZ21]. **Multipoint** [AKNY20, ER20]. **Multipole** [FDvW21, ZWC20]. **Multirate** [CH22a, CS22c]. **Multiscale** [CFV20, CAS23, DHM23, JKVY23, MS21, Mai21, QS21]. **Multistep** [DGYZ22, KD21]. **Multivariate** [LL22a, PU22]. **Naghdi** [KN20, NPT22]. **Narrow** [FL21]. **Narrow-stencil** [FL21]. **Natural** [WLF23]. **Navier** [CSWY23, FLH23, GANT20, Han23, HS21, KR23a, KR23b, KR23c, KS20, LS20a, LMS22, PS22, SR20]. **Near** [WZ23]. **Nédélec** [GGPS21]. **Neighborhoods** [DXY22]. **Nematic** [NRY22]. **Networks** [AN21, AY20, CFF20, CLW21, CLS23, FGK23, FMR22, HPBL21, MS23]. **Neumann** [Zha23]. **Neural** [Avi23, HPBL21, LLZZ22]. **Newton** [MU22, SC23, TWZZ23]. **Nicolson** [AGS21, JLY21, SR20]. **Nodal** [BPW23]. **Noise** [BJ22, CHS21, KLS20, NSD22, ND22]. **Noisy** [DSY21, bLWZ21]. **Non** [AY20, CM21, GS23, LWZ20]. **Non-Lipschitz** [AY20]. **Non-self-adjoint** [CM21, LWZ20]. **Non-Uniform** [GS23]. **Nonautonomous** [RK20]. **Noncoercive** [AKM23]. **Nonconforming** [WHL21, ZW22]. **Nonconvex** [LWX20]. **Nondivergence** [QZ20]. **Nonintrusive** [Ni21]. **Nonlinear** [AFB<sup>+</sup>21, AXSZ22, BCY21, BCF22, BM22, CCHHK20, DRV21, DE20, EH22, FLM21, FR21, JLWZ22, KV22, LZM<sup>+</sup>20, LUZ20, LM22a, ILLL23, MvdZ20, RK20, Sch23, WL23, WS23, Zou23].

**Nonlinearities** [HK20]. **Nonlinearity** [BCF22]. **Nonlocal** [BG20, DXY22, FR21, KVM22, KV22, LTTF21, LJL<sup>+</sup>21, ZDMZ20]. **NonMatching** [BGHY22]. **Nonmonotone** [GMP22]. **Nonoverlapping** [EH22, YDS21]. **Nonregular** [BDG23]. **Nonrelativistic** [BCY21, CS22a]. **NonReversible** [SZ21b]. **Nonseparable** [Ohs23]. **Nonsmooth** [BC20, BC22, LWX20, LM22a, DGL20, LM22b]. **Nonuniform** [QW23]. **Norm** [CMZ21, GPHHA20, HG22, PU22, QW23]. **Normal** [BBH22]. **Normalization** [WR21]. **Note** [PU22]. **Novel** [HS20, LZ23, MSD22]. **Number** [JLWZ22, Lab20, NH20]. **Numbers** [ALOS23, HS20]. **Numerical** [AHW23, ADBP22, Bar20, BCT21, CL21, CDCVV21, CLR23, DDO20, FGOS20, FGP21, FR21, GP22, GWY22, HY22, HN21, LL22a, LZM<sup>+</sup>20, LS22, LM22b, LYC23, MO21, Pap22, PS22, Rub20, WL23, WS23, ZRZ23, ZW20a, ZW20b, ZL21]. **Nystrom** [FA22].

**Observable** [FV23]. **Observation** [MST22, ZZZ22b]. **Obstacle** [HY22]. **Odes** [CH22a]. **One** [DFFS22, GPHHA20]. **One-Equation** [DFFS22]. **One-Stage** [GPHHA20]. **Operator** [AKM23, CGR20, EW21, HJHUT20, KV22, LWWW22, MS23]. **Operators** [FP20, GNS20, GNÖ23, Kar21, LR20, LWZ20, LRK22, WM23]. **Optimal** [AP21b, ACL20, AGS21, BPW23, BHYZ23, BDG23, CC23, CSWY23, CCW22, CN21, CM21, CP23, CLR23, CDD<sup>+</sup>20, DH21, FLO20, GS23, GO21, HZ20, HG22, HJHUT20, KRS<sup>+</sup>21, LSTY21, MSD22, MU22, MST22, MG23, MSS20, Otá22, ST22, WS23, WSH20, ZW20b]. **Optimal-Order** [MSS20, ZW20b]. **Optimality** [CSSS23, GFSZ20, KSG23, Otá22]. **Optimization** [CAGD22, GZ21, GLS23, HW21, LYC23, Pap22, Par20, SZ21a]. **Optimized** [BJMO22, DH21, DNT22]. **Options** [DLZ20]. **Order**

[AF21, AXSZ22, ARSY20, AK20b, AH21, BL23, BG20, BDE21, CH22a, CM21, CHH23, DIL<sup>+</sup>20, DRV21, DE22, DHM23, lDzSW22, DWW22, ER20, ER21, EW21, EG22, FR21, FHK22, GS22, GAJN23, Gaw20, GNS20, Gla20, GGHS22, GMP22, HKYY21, Han23, HS21, KS20, KLS20, LET20, LUZ20, LWC23, ILTZ20, ILLL23, LJL<sup>+</sup>21, MZZ22, Mai21, MNO21, MG23, MSS20, Mus20, NSD22, Pra20, QZ20, SJ21, SR20, Sun21, WK23, XSZ20, ZW22, ZW20a, ZW20b, ZDMZ20, ALW21, CT21, DE20, FLM21, Li21, WZ20]. **Oriented** [VL23]. **Orthogonal** [CS23, GO20, KRS<sup>+</sup>21, LS20b, NR21, Xia21]. **Orthogonalization** [CCW21]. **Oscillation** [LLS21]. **Oscillation-free** [LLS21]. **Oscillator** [CHJS21]. **Oscillatory** [WZ23]. **Oseen** [ABB<sup>+</sup>21, KK20]. **Outer** [BBH22].

**Parabolic** [BR20b, BW20, BJMO22, DRV21, GO21, GPHHA20, Guo21, HK20, JKVY23, JZ21a, KM20a, Kop20, LSTY21, LWZ20, LUZ20, LAZ22, LWC23, vWR23]. **Parameter** [BIP22, KR20]. **Parameter-Errors** [BIP22]. **Parametric** [BZ21, BJL23, GHM20, JSZ23, Li20, LLZZ22, Pra20]. **Parametrized** [BG20, RSS22]. **Parareal** [BW20, BJMO22, GW20]. **Part** [AP21a, AP21b, AP22, KR23a, KR23b, KR23c]. **Partial** [EEST22, GHM20, LL22a, MS23]. **Particle** [FGK23, LWXZ22, WZ21]. **Particles** [JLL21]. **Parts** [EW21, GNÖ23, RN20]. **Patch** [LY20]. **PDE** [GO21, GZ21, HW21, LS20b, NT21b, vWR23]. **PDE-Constrained** [HW21, GZ21]. **PDEs** [BW20, CM21, CL20, FHK22, KLMZ21, LL22b, SST<sup>+</sup>20]. **Penalization** [CDP22]. **Penalty** [BC20]. **Perfectly** [BK21, JLWZ22, Zha22]. **Perform** [SJ21]. **Perimeter** [JSZ23]. **Perimeter-Decreasing** [JSZ23]. **Periodic** [AB20, BLX20, HN21, HS21, KKS20, PS21, ST22, YHLR22, Zha22]. **Periodization**

[BGNS20]. **Periodization-Based**  
 [BGNS20]. **Perturbed** [CK20, KR23d].  
**Petersson** [Pap22]. **Petrov**  
 [BS22, CJZ22, FHN23, MvdZ20]. **Phase**  
 [CGO20, CDCVV21, GKMR22, Kar21,  
 MO21]. **Phase-Field** [Kar21].  
**Phenomenon** [FM21]. **Picard** [HK20].  
**Piecewise** [WHL21]. **Pitaevskii** [HP20].  
**Pixel** [BH21]. **Pixel-Driven** [BH21].  
**Planar** [NT21b, SJ21]. **Planck**  
 [BS22, LLZZ22, WW20]. **Plane**  
 [DN23, IG21]. **Plate** [GS21]. **Plates**  
 [FHN23]. **PML** [LZ23, WYZ20a, YHLR22].  
**POD** [GAJN23, KS20, MU22, Rub20].  
**POD-ROM** [Rub20]. **POD-ROMs**  
 [GAJN23]. **Point**  
 [BC22, EPRX20, GVMRBV23]. **Points**  
 [AXSZ22, DH20, DNT22]. **Pointwise**  
 [BLV20, HW22, Han23, KRS<sup>+</sup>21, KR23d,  
 KM20b, Sch23]. **Poisson** [BCF23, CMZ21,  
 DDO20, GKN21, LY20, PSS22]. **Pollution**  
 [ZRZ23]. **Polygonal** [CDG23, GHM20].  
**Polyhedra** [BLV20]. **Polyhedral** [CDG23].  
**Polynomial**  
 [AP20, FLO20, GGPS21, NT21a].  
**Polynomial-Degree-Robust** [GGPS21].  
**Polynomials** [DH20, GO20]. **Polytopal**  
 [YZ20]. **Population** [JZ21b].  
**Poroelasticity** [GVMRBV23]. **Porous**  
 [DL20a, FA20, FM21, Sun21, ZSH20, ZRZ23].  
**Posed** [GS22, GB20]. **Posedness**  
 [FMR22, ZSH20]. **Positive**  
 [GPR20, IKM22, WJS23]. **Positivity**  
 [FHW21, HLTW21, Kar21].  
**Positivity-Preserving** [FHW21, HLTW21].  
**Posteriori**  
 [BW22, BBH22, CDG23, CFV22, CFV23,  
 CGP20, DRV21, DMS21, Gal21, GGPS21,  
 KK20, KR23d, KM20b, WL20, dVCN<sup>+</sup>23].  
**Potential** [BCY21, ZZZ22b].  
**Preconditioned** [LX23]. **Preconditioner**  
 [Hu21, ST22, TWZZ23]. **Preconditioners**  
 [AKM23]. **Preconditioning**  
 [AP22, HJHUT20, MST22]. **Preintegration**  
 [GKS23, LO23]. **Preservation** [Ohs23].  
**Preserving** [BZ21, BPS22, CHJS21, CS22b,  
 Col23, FHW21, GV20, GGHS22, GPR20,  
 HLTW21, IKM22, JSZ23, JZ21b, ILTZ20,  
 LWXZ20, PR22, SX20b, WL23, WB21].  
**Pressure**  
 [ABB<sup>+</sup>21, KR23c, KS20, LR20, SR20].  
**Pressure-Robust** [ABB<sup>+</sup>21, LR20].  
**Primal** [WW20]. **Primal-Dual** [WW20].  
**Principle** [ILTZ20]. **Principles** [CHJS21].  
**Priori** [CP23, FGP21, MS20].  
**Probabilistic** [YZZ20]. **Probabilities**  
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