

# A Complete Bibliography of Publications in *Advances in Computational Mathematics*

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1 [FF05, GT14, Han05, JRS15, NV10, NSW16, TZ07].  $1 < p < \infty$  [LWY06]. 2 [Boc04, DL98, GM14, HKR04, Lee03, Möb10, Pot04]. 2.1933 [Pla00]. 3 [CK11, GL13, Hem95, Hem96, HS13, MU14, VW02, vdHS00]. 4 [Han98, Jia11].  $4n$  [SC08]. 6 [DLUS17].  $[-1, 1]$  [CT05, CKK12].  $Ax = b$  [Cul96].  $c$  [Rip99, Sch11b].  $C^0$  [SS14].  $C^1$  [KJ09, LL04, LPSSP00, NZ04, NSZ04, Sab04, SS04, DL98].  $C^2$  [AF96, Rem12].  $C^3$  [CGM01, CM03].  $C^k$  [MSS02, PR99].  $C^r$  [LLS96, LL98].  $C^p$  [LLS94].  $d$  [HX02, Rob98].  $E$  [MP96, Pré94].  $\ell^1$  [GN08, GS13, MZ13].  $\ell_1$  [SHTS14, ZYY16].  $\ell_{1,2}$  [Fli18].  $F(z+1) = b^{F(z)}$  [PC17].  $F_A$  [BW15].  $F_D$  [BW15, TZ05].  $GC_n$  [BH17].  $H$  [Dai16, MS00, Peñ11, GH06, Xu04a, ZQ13, ZG16].  $H^{-1}$  [She09].  $H_F^p$  [HLT11].  $H_1$  [MSS02].  $hp$  [MW01].  $L^2$  [CLZ02, LL10, LL12b, MS16].  $L^2(\mathbf{R})$  [CHL17].  $L^2(\mathbf{R}^d)$  [CR08].  $L^\infty$  [Noa14].  $L^p$  [War13, RS99].  $L^p(\mathbf{R})$  [LWY06].  $L_0$  [TGA96].  $L_1$  [LW04, DSS09].  $l_2$  [DSS09].  $L_2(\mathbf{R})$  [Atr12].  $L_p$  [Jia95].  $L_p(\mathbf{R}^d)$  [DL04].  $L_r$  [CDP09].  $M$  [CTZ02, Jia00, Tem98].  $\mathbf{R}^d$  [War13].  $\mathbf{R}^n$  [Sor18].  $\mathbf{S}^3$  [Grä12].  $\mathcal{H}_\epsilon$  [BGH15].  $n$  [BH17, DKLT93, SC08].  $O(N)$  [GM14].  $P$  [Dai16, Peñ11, CS03, GH06, Jan98, SL12].  $P_0$  [ZT15].  $P_1$  [ZT15].  $\pi(x)$  [Kot08].  $q$  [Rob98].  $QR$  [CM99, LMV11].  $\mathbf{R}^2$  [KL00].  $\mathbf{R}^3$  [KL00].  $s$  [Hes09, KL04, KL07].  $S^2$

[HL08, Hes09].  $\sigma$  [SX07].  $SO(3)$  [Grä12].  $\tau$  [gTpM02].  $V$  [ZXC12].  $\varepsilon$  [GH16].  $\varphi$  [WZtX16].  $W$  [CGH<sup>+</sup>96, IB17].

**-adaptive** [ZQ13, ZG16]. **-algorithm** [MP96, Pré94]. **-analysis** [ZYY16]. **-bases** [MS00]. **-channel** [Jia00]. **-convergence** [CDP09]. **-d** [NV10, TZ07, DL98, FF05, VW02, JRS15]. **-energy** [Hes09]. **-error** [BGH15]. **-estimate** [CLZ02]. **-finite** [LLS96]. **-fold** [Jia11]. **-Frames** [CS03]. **-function** [IB17]. **-functions** [WZtX16]. **-fundamental** [LL98]. **-geometrically** [ZXC12]. **-harmonic** [Xu04a]. **-isometry** [SL12]. **-matrices** [Dai16, Peñ11]. **-methods** [gTpM02]. **-minimization** [Fli18]. **-monotone** [KL04, KL07]. **-orthogonal** [SX07]. **-penalty** [GS13]. **-piecewise** [PR99]. **-point** [DLUS17, SC08]. **-poised** [BH17]. **-refinable** [CTZ02]. **-regularization** [MZ13, SHTS14]. **-sphere** [HKR04, Pot04]. **-splines** [BL99, MSS02, NZ04]. **-stable** [TGA96]. **-subgradient** [GH16]. **-subspaces** [HLT11]. **-superconvergence** [ZSB01a]. **-synthesis** [ZYY16]. **-term** [Tem98]. **-version** [Jan98]. **-wave** [HX02]. **-weighted** [MS16]. **-widths** [DKLT93].

**1** [BF94]. **19.07.1998** [Sil99].

**29** [Fus08a].

**4** [Hem96]. **409b** [CN96].

**96c** [Hem96].

**a-posteriori** [MRH15]. **absence** [GM14]. **Acceleration** [Pré94, XY15, DMMS11, LZ98, MP96, WMB13]. **accelerations** [Noa14]. **Accuracy** [FF05]. **accurate** [Del17, HBMY14]. **acoustic** [ARPR01, BBR02, HR02, ZP06]. **action**

[Las16]. **active** [KPY09]. **active-set** [KPY09]. **Adams** [Wil98]. **adapted** [AL13, Che06, CZS16, Str13]. **Adaptive** [Ano01b, BDD06, BDMR10, BLS02, DFR07, FYL08, Hol01, KHM16, MSZ06, PP97, QW11, RWT13, XZ03, ASU17, APV14, BKN11, BMK15, BCE<sup>+</sup>09, BF94, CCE<sup>+</sup>12, DMMS11, Dün11, Dün12, KCW17, KC16, RSZ11, SW96, WLPV15, ZL16, ZQ13, ZG16]. **adaptively** [GJS14]. **adaptivity** [AK01]. **adding** [RY13]. **additional** [CaL06]. **additive** [Bre95, PTC12]. **Adjoint** [LSLS14, FGO14, FMPS13]. **Adv.** [Fus08a, Hem96]. **Advances** [Ano02d, BOP<sup>+</sup>15, Ano03c, Ano04d, Ano04e, Ano04f, Ano05a, Ano05b, Ano16]. **advection** [CLZW13]. **aerial** [ZB99]. **aeroacoustic** [CEL15]. **Affine** [CSS98, Jia03, CHSS03, Mai06, PW94]. **affine-invariant** [Mai06]. **age** [Kim06]. **age-structured** [Kim06]. **algebra** [BKN11, BP11, CLM02, FH05]. **Algebraic** [JF02, RSA14, CGR13, DMMS11, Hau97, LMV11, Pan95, SXY06]. **algorithm** [BMB14, BPK96, CP99, Che02, CX04, zCpST09, CZS16, DLK12, DGK15, FKS05, GM14, Han05, HZHL12, HFH15, JZ10, KPY09, KC16, LD07, Maz07, MU14, MP96, Mur08, Pré94, QW11, Rip99, Rob98, RHZ17, Ven94, nCV13, WW12, WLW16, XWL13, ZSHZ15, ZXC12, Zwi94, dH94]. **Algorithmic** [Cai02, GH99]. **Algorithms** [Ano02d, FMR00, GN01, BGM93, BEPS96, CHM18, DT96, DT12, FJ99, FRT09, Gon93, GN08, GH16, LLS09, LT06, Li04, LSXZ15, LT12, MSZ06, MSXZ13, Sab04, Tem98, Tem00, Tem01, Tem02, VM17, VK96, WLPV15, XZ01, Yin07]. **all-electron** [SL15]. **Allen** [RWT13]. **almost** [GP95, yGmW98]. **alternate** [MP96]. **Alternative** [LPY10, Sch11b]. **American** [lZmCRX03]. **Ampère** [Awa15]. **analog** [LPY10]. **analyses** [KKL03, MNC16]. **Analysis**

[ADL11, JS05, KS17, KvL95, KL16, Lee03, VW02, dFGAJN18, Ang00, AK15, BMSR<sup>+</sup>16, BEPS96, CDP03, CCSS09, CCG10, Che06, CGH<sup>+</sup>13, CKW10, DG13, DLZ16, Flo96a, FM04, yGW07, GL17, JK08, KK05, KA97, Lee16, Lev99, LMV11, LY08, Lut04, MWW13, Nie98, OS09, OBS15, Onc14, PM17, PS98, RAB<sup>+</sup>09, RHZ17, SXZ06, SLN14, TZ03, TS05, VW05, WYW11, WZ10, WOBL17, XB05, Xu14, YDF97, Yao16, Yin07, ZSB01b, ZGGW12, ZYY16, Zwi94]. **Analytic** [CSW96, MXO13, Kot08, Pet00, RAB<sup>+</sup>09, Sto96]. **analyzing** [KL15]. **angled** [MB96]. **angled-derivative** [MB96]. **angular** [SF14]. **anisotropic** [CGRS15, GO95, HS03, Kun01, Pei05, ZC14]. **Announcement** [Ano01c]. **anomalous** [ZD17]. **antenna** [SFDE15]. **antennas** [MKS02, Ryn00]. **Antisymmetric** [Jia03]. **any** [KXZ04, Mon09]. **Appell** [BCZ05]. **Appending** [Kun95]. **Application** [FE15, LL12a, Nee96, lZmCRX03, BEG17, BDD06, CLL08, CZS16, CGS93, FRT09, yGSIX03, Li10a, LD07, MU14, PZ16, Pré94, SL12, Wal95, ZL16]. **applications** [ABI15, ByLl01, DST04, DS13, yGS08, HKR04, HAS05, HX17, JGW15, JW95, Low05, MRS18, RT14, RZ10, RSZ11, SW06, Sto96, WZtX16, vdHS00]. **applied** [AC05, BP11, CEL15, Smo07, ZB12]. **Approach** [Zoz15b, BPJ02, CCSS09, CHRX06, DGMES13, FY13, Grä12, HT12, JKK<sup>+</sup>12, KvD01, LSW17, Leo02, Pan95, Wal95, ZD14]. **approaches** [ZD17, Zoz15a]. **approximants** [BCZ05, CDTV99, VK96]. **Approximate** [CLMR10, FPR<sup>+</sup>12, FGO14, GN01, FOW14, IMS99, JLZ08, KK05, Kim06, NBL11, Pan95]. **approximated** [GLS15]. **approximately** [DM15]. **approximating** [CGR11]. **Approximation** [AB11, BDKY02, BGN17, BR15, CP04, KP04, Le 05, Li09, Lut04, Mha93, MNW99, NSW07, Pot04, SS16, SS08, Xu04a, ZJ06, AK01, ASS10, BX94, BC99, BMK15, BS05, BA15, BW15, CLLS06, Cas07, CL07, CLM96b, CP07b, CG17, DPS93, Dar03, DY01, EGL13, FJ99, Flo96a, FHN94, FW15, GHdN12, Grä12, GS10, yGmW98, Han12, HW00, KORS17, KL04, KL07, KvD01, LS98, LW04, LW14, LT06, Li94, Li03, Li10a, Li10b, LT98, LB93, LL07b, LP14, MM00, Mai05, MN15, MRH15, MNW96, MWW13, MS04, MS16, NW04, NS04, Nee96, NG99, NZ04, PS98, Spe17, Tem98, TYY11, TDG16, War13, WH07, YZ08, Yoo01]. **approximations** [ByLl01, CCG10, Che06, CGH<sup>+</sup>13, DG13, DG16, FF05, yGSIX03, yGS08, HL05, HR01, HX02, IB17, IMS99, JGW15, Kot08, MRS03, YLBL12, Ye00]. **arbitrarily** [Han10]. **arbitrary** [CMP07a, CHR00, HW00, SL05, Ven94]. **arc** [Leo02]. **architecture** [Jan98]. **Area** [HR17]. **arising** [AM14, BNP14, JM00, LN14, LL99, LSXZ15, MV01, TBD94]. **Arnoldi** [WZtX16]. **array** [AH96]. **arrays** [Cal05, SFDE15]. **art** [FRT09]. **ARTICLE** [Zoz15b]. **artificial** [Mha93]. **aspects** [Le 00, Sau95, Yoo01, dB00]. **asset** [PGB15]. **Associated** [GH03, ADL11, CW09, HLT11, KA97, LPSSP00, NSW07, SM00]. **association** [New96]. **astrodynamics** [ABI15]. **Asymptotic** [AV15, CL07, FL00, HWZ13, JLZ08, RL07, DHO16, DGS18, LL07a, MWW13]. **Asymptotically** [TDG16]. **Asymptotics** [IS13, DS01]. **Atmospheric** [CLM96a]. **atoms** [FGO14, Füh16]. **attractors** [CTZ02]. **augmentation** [CWX06]. **augmented** [WLW16, XWL13]. **Author** [Ano00a, Ano01a, Ano02a, Ano02b, Ano03a, Ano03b, Ano04a, Ano04b]. **autocorrelation** [BD10, Plo95]. **Automated** [Nes16]. **Automatic** [Hag98]. **autonomous** [MO16]. **avalanche** [IL16]. **average** [ABD08, Atr12, Li03, LD07, RJ00]. **averaging** [MSZ06]. **axial** [Jia11]. **axis** [CCH<sup>+</sup>08]. **axisymmetric**

[BH02, FKS05, KNV01].

**B** [CHRX06, CM12, FGS16, Flo94, JKLY13, KK99, LM06, MXZ08, MH17, NSS04, Plo95, Str95, Wal95]. **B-spline** [CHRX06, FGS16, Flo94, KK99, MXZ08, MH17, Wal95].

**B-splines**

[CM12, JKLY13, LM06, NSS04, Plo95, Str95].

**backward** [AK15, HT11]. **backward-Euler**

[AK15]. **balanced** [CT17b]. **ball**

[Li08b, Xu04b, DP06]. **balls** [Noa96].

**Banach** [CS03, DST04, Tem01, Tem07].

**band** [MNW04]. **band-dominant**

[MNW04]. **banded** [AH96]. **bandlimited**

[FPR<sup>+</sup>12, GP14, Lem09]. **bank** [CMX07].

**banks** [EGL13, Jia00, Jia09b]. **Barycentric**

[War96, WSHD07, FHK06, GRB12]. **basal**

[IL16]. **based** [AS02, AV15, AB97, ABD08,

BCM99, Ben97, BS97b, BS97a, BS00,

CZS16, DL98, DS10, DGMES13, DAP13,

DLK12, Dün09, FM14, GS13, HL05, Han05,

HH15, KA97, Mac94, MSZ06, MW01, MC10,

Nai12, Nes16, NBL11, SS16, SS15, TQ17,

TSZ98, VK96, Wat96, XZ01, Zha01]. **Bases**

[LW03, LP04, Maz04, DS00, DP06, GJS14,

GLT93, HHS04, Hua06, JL06, Li09, LWY06,

MS00, QWXZ10, Sab04, TSY10, TYY11].

**basis** [ASU17, AZW15, AM14, AS05,

BCM99, BGH15, Cai02, CP93, CEL15,

CL16, DSW05, DP13, Fas99a, Fas99b, FF05,

FS98, FW15, Hub12, IUV17, Jüt98, Le 05,

LST11, LW14, LM14, LLY06, LL99, LR07,

Li05a, Li10a, Li10b, LK05, Low05, Mai05,

MRH15, RS99, Rip99, Sch95, SL15, SS08,

SRFH12, WH07, Wie15]. **be** [WS01].

**Beamlets** [She09]. **Bedrosian** [TSY10].

**behavior** [LL07b, RL07]. **behaviour**

[Mur08, Smo07]. **Bell** [Pit16]. **Bell-shaped**

[Pit16]. **below** [YLBL12]. **Beltrami**

[KN14, KNQ16, PTC12]. **BEM**

[ADG17, CP15, HS03, MS98]. **Bending**

[Alb15]. **Bernstein** [Sab04, CMP07a, CP93,

Jüt98, LKW17, Sor18, WSM13].

**Bernstein-type** [Sab04]. **Berzolari** [CG15].

**Bessel** [LYY13, Lóp18, Mac94]. **Best**

[BDKY02, Rau05, Li94, Tem98]. **between**

[BWX97, BCE<sup>+</sup>09, FK10, HR17, PZ16,

SM00, She13]. **Beyond**

[GN08, Buh06, Maz01]. **Bézier**

[CC94, DP13, Flo94, LKW17, Sor18]. **bi**

[JS99]. **BiCG** [Cul96]. **bicubic** [KP04].

**bifurcations** [CGS93, ER99]. **biharmonic**

[CL07, CLL08, FKS05, HSY16, Jeo98, JM03,

Li10a]. **bilateral** [CW09]. **bilaterally**

[KPY09]. **bilayers** [Alb15]. **bilinear**

[BA15, Rei93]. **binary** [LLY06, Lev99].

**binder** [SEE96]. **Binomial** [BMSZ01].

**binormal** [KKV15]. **Biorthogonal**

[Jia11, CHR00, CL02, Kei95, KKL03,

KKLY10, PST08]. **bits** [MNW04].

**Bivariate** [MNW96, Rem12, She08, CG04,

CGR13, DL98, DS00, DZ04, Flo96b, LS98,

LKW17, MH17, NZ04]. **Black** [PGB15].

**blind** [Fli18, HR13]. **block**

[AB97, Bai99, sCLC13, CSWP99, HH16,

NBL11, TZL16, dCB07]. **block-factorized**

[NBL11]. **blossoming** [Maz98]. **Blossoms**

[Maz04, Maz99, Maz07]. **body**

[GM14, HKRS14]. **Boltzmann** [HXC10].

**Boor** [JS95, Maz07]. **both** [ZYY16, ZD17].

**bound** [Bar03]. **boundaries** [BK96, She13].

**Boundary** [IMS99, MS99, ABI15, Boc04,

CDS02, CWLH95, CP99, CWX12, CT17a,

CHS17, CG17, Del17, FLM96, FK98, FZ12,

FY13, FH18, GMM09, GM14, Gil17,

yGmW98, GH06, GPG15, HH15, HJH12,

HR02, HZHL12, JSSE97, Jeo98, JM03, JS05,

Jia09a, KP95, Kno09, KS17, Kun95, Lee03,

MR96, MB96, Ock96, QC12, RZ98, SW98,

TZ07, TSZ98, TGA96, VC00]. **bounded**

[BBR02, CL16, GM17, PST95, San15,

TDG16]. **Bounds** [AS08, Dam07, LB93,

Mai05, NG99, NSW16, XHC15, ZXC12].

**Boussinesq** [Lee03]. **box** [BS05, CGR13].

**box-spline** [BS05]. **Bracket** [Chi03].

**branch** [IB17]. **branched** [KC16].

**breaking** [GH08]. **Brunel** [New96].

**Burridge** [XKY15]. **BVMs** [AB97].

**BVODEs** [Mui99].

**cache** [CM99]. **cache-** [CM99]. **Cahn** [RWT13]. **Calculation** [VC00]. **calculations** [SL15]. **camera** [FGS13]. **can** [WS01]. **cap** [HW12]. **capabilities** [CLLS06, CLM96b]. **capacitance** [TW98]. **cardiac** [GLS15]. **Cardinal** [HL16a, BS05, Buh06, Led15, RS99]. **cascade** [CX04, Li04]. **case** [CM03, Han05, RH12]. **Cauchy** [Bra01, BR07, CKP13, Cum96, WZ10, ZW12]. **Cauchy-type** [Cum96]. **Causality** [GGL07]. **cavities** [QC12, VW02]. **Cayley** [DLP98]. **cell** [ABD08, BEPS96, Dad17, JS05, KHM16, ZQ13, ZG16]. **cell-average** [ABD08]. **cell-centered** [KHM16]. **center** [EHV17]. **centered** [BEPS96, KHM16]. **central** [TQ17]. **centroids** [MFB<sup>+</sup>11]. **ceramics** [SEE96]. **certain** [Sto96]. **certified** [SFDE15]. **CG** [ZT14]. **CG-like** [ZT14]. **chain** [PR15]. **chains** [DMMS11, ZXC12]. **challenges** [Onc14]. **channel** [Jia00]. **characteristic** [CCE<sup>+</sup>12]. **Characterization** [LLS95, Li04, SZ09, FGG<sup>+</sup>17, Fus08a, Fus08b, GP95, LWY06, Mon09]. **Characterizations** [LY07, Far10]. **Chebyshev** [BR13, Cop98, MV99, Maz99, Maz01, Nee96, SC08, TZL16, WK93, Zhu15]. **chemotaxis** [CEHK18]. **chiral** [ZGGW12]. **choice** [GPT17, JJLR14, Kno09, LLY12, RH12]. **Ciarlet** [CL07]. **circle** [CJ07, GVSLN96]. **circle-preserving** [CJ07]. **circuit** [SS15]. **circular** [HO17, MKS02, PW08]. **circulation** [SI15]. **class** [ADL11, ABY13, Atr12, Bai99, BHT11, DG13, GMS12, Hak00, HR17, Hub12, LLS94, LSXZ15, MSS02, MN00]. **classes** [CKP13, Dai16, KL07, Pei05, Peñ11]. **classical** [Zoz15a]. **Classification** [CG04, XP10]. **classifiers** [ZJ06]. **Clenshaw** [XHC15]. **Clifford** [CLM02]. **Closed** [Hub12, Noa96]. **Clough** [LL98]. **co** [PR15]. **coarse** [KXZ04]. **coated** [CH15]. **cocoercive** [nCV13]. **codes** [CHMR97, Hal95, Kir98]. **coefficient** [GS13, SJLL15]. **coefficient-based** [GS13]. **coefficients** [Ehr00, EGL13, Pet02, ZB12, dB00]. **cohomology** [PR15]. **Collocation** [AHR16, BJX09, Cum96, FS98, Gu17, yGqW09, GW14, Han05, Hau97, HS13, HR02, HS16, LLS09, LK05, Liu99, MR96, Nai12, Ram95, RWT13, Sch09, XH13]. **colonoscopy** [MU14]. **combination** [FPT06]. **combinations** [DGMES13, MPS96, MPS97]. **Combined** [DSS09, BBB<sup>+</sup>16, HO15, HY18]. **common** [Len94]. **commuting** [GLT93]. **compact** [Gna07, Str13]. **Compactly** [CHSS03, JJK13, JS99, Wu95, CL16, Hub12, Lai06, LLS95, Len96, Wen95]. **comparing** [Sch15]. **comparison** [BBB<sup>+</sup>16, Zoz15a]. **compass** [GMB97]. **compatible** [TDG16]. **competition** [Ble07, DLK12]. **complements** [Dai16, Peñ11]. **completely** [Dou94, Xu14]. **completion** [CMX07, WLW16]. **completions** [MRS14, MRS18]. **complex** [DOZ94, FMR00, FH05, Han10, IL16, MKS02, PC17, SM99]. **Complexity** [NUWZ17, Tom96, Cho95, Pei05]. **components** [RST<sup>+</sup>14]. **Composite** [yGjW10, HXC10, Pla12]. **comprehensive** [FGG<sup>+</sup>17]. **compressible** [BBB<sup>+</sup>16]. **compressing** [MST05]. **compression** [DPS93, DKLT93, LW14]. **compressive** [SL12]. **compromise** [BCE<sup>+</sup>09]. **Comput** [Fus08a, Hem96]. **Computation** [Ano02c, PR15, ZA10, ANSZ17, BPJ02, BH02, BPK96, CX04, ER99, GH99, LD07, MFB<sup>+</sup>11, NP18]. **Computational** [Ano01b, Ano03c, Ano04d, Ano04e, Ano04f, Ano05a, Ano05b, Ano16, Pei05, Sau95, Yoo01, dB00, BOP<sup>+</sup>15, Lee03, Sch15, NW04]. **Computationally** [TL18]. **computations**

[ASU17, KP98]. **computers** [EJ97, vdH93]. **Computing** [CKP13, GH08, HBM03, Jon17, KL15, BI11, Kir98, LMV11, MXY13, SC08]. **concentrated** [GG06, RST<sup>+</sup>14]. **Concentration** [GZ13]. **concepts** [WLPV15]. **condensed** [ASS10]. **condition** [Awa13, Flo94, QC12, Sch95, SS96, WL05, ZYY16]. **Conditional** [Xia13]. **conditioned** [ČF11]. **conditioning** [Ant18, LG13]. **conditions** [CDP09, Del17, EHV17, FLM96, FS07, Füh16, GW17, Gil17, HXC10, JM03, Jia09a, KK99, Kun95, MB96, TGA96, ZhXpZ16]. **conduction** [BDMR10, CN96, HT11]. **Cone** [Leo02]. **configurations** [BEG17, CG04]. **confluent** [DGS18, NP18]. **conformal** [CWLH95, CL18, HL16b, MKS02, TB16]. **Conforming** [MN16, ZC14]. **conic** [Flo96a]. **conical** [EHS02, PW08]. **conjunction** [DSS09]. **connected** [CWLH95, CL18, HL16b, San15, TB16]. **connection** [BGM93, NSW07, SM00]. **connectivity** [PŠWX03]. **conservation** [KK05, MV01, ZQ13]. **conserving** [ABI15]. **consistency** [CX06, HFH<sup>+</sup>07, MNPR06]. **consistent** [KHM16]. **constant** [KPY09, LY08, ZB12]. **constrained** [BHT11, IUUV17, KPY09, SW06]. **constraint** [KXZ04]. **constraints** [WOBL17]. **Constructing** [CGM01, FMPS13, GW17, GU02, Lem09, GM14]. **Construction** [AF96, BD10, ČF11, CHR00, CaL06, DHO16, FOW14, GS10, JMO00, Lai06, OBS15, Rei93, SX07, WOBL17, ABC14, BCZ05, CCH<sup>+</sup>11, CP14, CMX07, CL02, FHK06, Hua06, KKLY10, LH13, MSS02, PST95, SW98, Str13]. **constructions** [CHL17]. **constructive** [CGR13, DG16]. **contact** [HKRS14]. **context** [HSV09, Wie15]. **continuation** [Awa15, Mur08, She13]. **continuity** [LM04]. **Continuous** [CS94, DM93, ALZ02, BP93, DY10, DAP13, JL97, Len96, Mui99, WY17, ZT14]. **contraction** [PR15]. **Control** [KLNS95, AV15, CBK01, Cas07, CCE<sup>+</sup>12, GN13, HR01, Lee03, LY01, MRS03, Wil98, Yan03, dLdDSM07]. **controls** [MS16]. **convection** [CCE<sup>+</sup>12, HO17, KY01, KXZ04, LRS12, Mat09, OS09, PP97]. **convection-dominated** [CCE<sup>+</sup>12, KY01]. **converge** [CSW14, Gon93]. **Convergence** [AK15, BQRB13, CCSS09, FS98, Gom95, HX02, KB15, Li08a, LG13, MNC16, Noe95, PK94, Ryn00, WYW11, WZ10, Yao16, Yin07, CLC16, CDP09, Che06, CKW10, FJ99, FP99, FL00, GH06, Led15, LR07, Li04, Li05b, Li08b, PS98, Tem02]. **Convergent** [Löp18, KXZ04, LLS09, WMB13]. **conversion** [LPY10]. **Convex** [FPT06, sCLC13, CZS16, CCH<sup>+</sup>15, FHK06, FK10, HH16, Kva14, LD07, LY01, MR10, MRS03, Pet96, RGB13, War96, WSHD07]. **Convexity** [CC94, KK99, SS14, Car95, Flo94, LPSSP00]. **convolution** [Cop98, HJJV97, Li03, YZ13]. **convolution-type** [YZ13]. **Convolutions** [CK03b]. **Coorbit** [DST04]. **coordinate** [YWC12, Zwi94]. **coordinates** [FHK06, KB15, RGB13, War96, WSHD07]. **corner** [Noa98, Sab04]. **corner-cutting** [Noa98]. **correction** [KCW17, XH13]. **corrections** [FXZ96]. **corrector** [CSWP99, ZD14]. **Corrigendum** [Hem96]. **corrupted** [XWL13]. **Coulomb** [HL08]. **Counterexamples** [LL07a]. **counting** [Kot08]. **coupled** [GLO10, HFH<sup>+</sup>07, JRS15, MRH15, MS98, OS09]. **coupling** [ADG17, DGMM16, GMM09]. **Courant** [CBK01]. **Crank** [How96, New96, Ock96]. **creates** [Ito96]. **criss** [SXYY06]. **criss-cross** [SXYY06]. **criteria** [ZV08]. **criterion** [FBCR13, Tem02]. **Critical** [Sto96]. **cross** [HL96, SXYY06]. **cross-validation** [HL96]. **Crouch** [JMO00]. **cryptographic** [Ren09]. **crystal** [HY14, RH15, Zhul5]. **crystals** [KK02]. **CSOR** [HJJV97]. **cubature** [DG13, GS10, IMS99, Pet00, Xu98, Xu00].

**cubic** [ANSZ17, CG06, ČF11, Flo96a, JL06, NSZ04, Pet96, Rem12]. **cubical** [PR15]. **cubics** [Noa06, PFMS05]. **cuboid** [HSY16]. **CUR** [VM17]. **curl** [BKK17]. **Current** [MM99, BMSR<sup>+</sup>16, Cai02]. **Curtis** [XHC15]. **Curvature** [RS01, CC94]. **Curve** [Pot95, CM03, MU14, Pet96]. **curved** [KB15]. **Curves** [MP04, BX94, BWX97, BGN17, BC94, CLM02, CGM01, Der04, FS94, FaKS02, Far10, FGS16, FGG<sup>+</sup>17, Flo96b, HBMY14, JKK<sup>+</sup>12, KLNS95, KKV15, Mon09, Pot95, PS98, RSA14, Sab04]. **curvilinear** [LQ14]. **cuts** [DT12]. **cutting** [Noa98, Sab04]. **Cycloidal** [MP04]. **cylinder** [MKS02]. **cylindrical** [BGMS07, YDF97].

**D** [Hem96, HS13, Lee03, CK11, GT14, Han05, NV10, TZ07, Boc04, DL98, FF05, GM14, GL13, Hem95, MU14, VW02, vdHS00, JRS15]. **D-problems** [Hem96, Hem95]. **damped** [ADG17]. **Darcy** [CHM18, MRH15]. **Data** [CP04, HO15, LW14, Bes03, BE00, CCSS09, CP15, CGW13, DZ04, DSW05, DSS09, FHN94, FM04, Grä12, GL13, KMO<sup>+</sup>14, Kun09, LW04, LNW02, LP14, MST05, MNW99, NSW98, NG99, Pot04, RS99, WL05, WSM13, Yoo01]. **Data-driven** [HO15]. **data-independent** [DSW05]. **Daubechies** [DKB99, EGL13]. **Davidson** [TZL16]. **deblurring** [CZS16, KPY09]. **decay** [NV10]. **decaying** [LP10]. **December** [Ano16]. **decomposition** [CM99, DT12, FKS05, GL13, Hag98, HKRS14, HFH<sup>+</sup>07, HS03, Hu07, Las16, LH13, LHY08, PS05, PSNP11, SII5, Sto17]. **Decompositions** [DS13, AL13, CCN<sup>+</sup>16, CHRX06, VM17]. **deconvolution** [Fli18, HR13]. **decoupled** [CHM18]. **Deficits** [BCHL03]. **defined** [FMR00]. **definite** [Bai99, GS10, LS05, Pin04, SM99, WMY13, WMB13, Wen95, Wu95]. **definiteness** [Luo99]. **degenerate** [Gna07, LB93]. **degeneration** [Bes03]. **Degree** [PR99, ABC14, BR13, DOZ94, FL00, Mar95, Mon09, PK94, SM00, Wen95]. **degree-raising** [FL00]. **delay** [BP93, BPW95, ER99, GH08, WY17]. **delay-integro-differential** [WY17]. **delays** [Dad17, XH13]. **delta** [CDS02, DRS08, LPY10, Wan08]. **demixing** [Fli18]. **Democracy** [GHdN12]. **denoising** [BCE<sup>+</sup>09, JZ10, MSXZ13]. **densely** [She09]. **densities** [DMT03]. **density** [JJK13]. **dependent** [LZZ09, SW10, TB16, TGA96, dFGAJN18]. **derangements** [IS13]. **Derivative** [FXZ96, FF05, FW15, KS17, MB96]. **derivatives** [BRSV15, XL10]. **design** [Pot95]. **designing** [FGS13]. **designs** [HL08, Hes09]. **desired** [Lem09]. **Detecting** [BLP02, DGMES13]. **detection** [CGS93, CGW13, ER99, MP00]. **determinants** [Maz98]. **determined** [BGM93]. **Determining** [SF14]. **deterministic** [WSM13]. **detonation** [ZG16]. **Development** [CDP03]. **Diagonal** [Peñ11, Dai16, FMPS13, Kos15]. **diagonalized** [LWL17]. **Diagonally** [vdHS00, EJ97]. **dictionary** [Mai06]. **difference** [BEPS96, Che06, CLL08, CEHK18, JRS15, KY01, MB96, NV10, PL05, TZ07, Xu14, ZD16]. **different** [LQ14]. **Differentiability** [Sau06]. **Differential** [KK02, BP93, BPW95, ByLl01, CJX17, CWX06, CN96, DLP98, ER99, FZ12, Fas99b, FY13, GH08, yGS08, yGqW09, Hau97, HBM03, HS08, JLZ08, KA97, LMV11, Liu99, PM17, SW96, She13, lWyG06, WY17, Wat96, ZV08, ZD14, vdHv97]. **differential-algebraic** [LMV11]. **differentiation** [WH07, XL10]. **Diffraction** [BBR02, EHS02]. **diffusion** [BCE<sup>+</sup>09, CK11, CLM96a, CLZW13, CHS17, CCE<sup>+</sup>12, GLO10, HO17, KY01, KXZ04, Kim06, KHM16, KC16, Kun01, LD16,

LRS12, MR15, Mat09, MXO13, MNC16, OS09, PP97, TDG16, ZD17, ZC14, ZW12]. **digital** [LPY10]. **digital-to-analog** [LPY10]. **dilation** [Gro13, Han98, Han06]. **dilations** [CHSS03]. **Dimension** [CL12, TQ17, KORS17, Mai06, PŠWX03]. **Dimension-by-dimension** [TQ17]. **dimensional** [BNR00, BR15, CMP07b, CGH<sup>+</sup>13, CCH<sup>+</sup>08, DLS14, HSY16, JN18, KF03, LG13, LZZ09, LL07b, MR15, Nov00, Onc14, SM00, WHS18, XKY15, ZQ13, ZG16]. **Dimensions** [ZWDD16, AS08, Che02, FP99, Füh16, HW00]. **diminishing** [CGP95]. **DIMSEMs** [EJ97]. **DIMSEMs-diagonally** [EJ97]. **Dirac** [CDS02, DRS08, yGSIX03]. **Direct** [AM14, LL99, Che02, DZ04, MS16]. **direction** [BS05, LLS96, LL98]. **directional** [CCH<sup>+</sup>15, CGRS15, GL17, MSS02, NSS04]. **directly** [TQ17]. **Dirichlet** [AK01, ACH10, JM03, Lee03, Li05b, WL12]. **Dirichlet-to-Neumann** [WL12]. **discontinuities** [AL13, BR15]. **Discontinuous** [Ye04, AK15, BQRB13, KF03, Pet02, SXZ06]. **Discrepancy** [Leo13, Pla00, RJ00]. **Discrete** [CMX02, JSSE97, dLdDSM07, BF11, Ble07, CJX17, CKM99, Dad17, Kir98, LC13, LL13, MZ13, Mui99, Nee96, Rei93, TZ03, ZV08]. **discrete-time** [BF11]. **discretisations** [Mat09]. **discretization** [AS05, Bra01, FW96, HBMY14, HL06, HH15, JRS15, MV01, NV10, RSZ11, TZ07]. **discretizations** [Ang00, PGB15, XY15, XZ01, ZC14]. **Discretized** [HT11, CGS93]. **discriminating** [DGMES13]. **disk** [CWLH95, CL18]. **dispersion** [CLMR15]. **dispersive** [PM17]. **dissipation** [CLMR15]. **distance** [PZ16]. **Distances** [BWX97]. **distinct** [VK96]. **distributed** [FYL08, HH16, LY01]. **distribution** [ZD17]. **distributions** [CDS02, Li03]. **div** [BKK17, JJLR14, dFGAJN18]. **divergence** [Sor18, Urb95]. **divergence-free** [Urb95]. **Divergent** [Zoz15b, Zoz15a]. **Dixon** [Chi03]. **Domain** [DT12, AS05, BMSR<sup>+</sup>16, CWLH95, DAP13, EHV17, GM17, Hag98, HKRS14, HFH<sup>+</sup>07, HO17, HS03, Hu07, LHY08, PS05, PSNP11, Rem12, Sto17, SL05, VW02, ZhXpZ16]. **domains** [BK96, CLL08, CL16, GH06, yGS08, HL16b, IMS99, KB15, LG13, LHY08, Str13, TDG16]. **dominance** [Dai16, Kos15, Peñ11]. **dominant** [MNW04]. **dominated** [CCE<sup>+</sup>12, KY01]. **dot** [LS05]. **doubly** [Tor16, TB16]. **doubly-connected** [TB16]. **DOUG** [Hag98]. **Douglas** [HH16]. **Dr** [Sil99]. **driven** [HO15]. **dual** [Boc04, CP03, zCpST09, CKK12, CKK16, Chr15, DM15, FGO14, FOW14, JJK13, Jüt98, KPY09, LPY10, Lem09, LKW17, LYY13, nCV13]. **Duality** [Noa06]. **duals** [CG10, CSS98]. **Dyadic** [DM99, CS94]. **Dynamic** [dCB07]. **dynamical** [Tan17, WOBL17]. **Dynamics** [Dad17, Kim06]. **earthquakes** [XKY15]. **eddy** [BMSR<sup>+</sup>16]. **Edge** [CGW13, PGB10, GL17]. **edges** [Var96]. **Editor** [Ano95, MM99]. **Editorial** [GS12, MM93]. **editors** [Ano05a, Ano05b, Ano03c, Ano04d, Ano04e, Ano04f]. **effective** [HKR04]. **efficiency** [DL04]. **Efficient** [JGW15, MV01, PS07, VM17, AZW15, CM99, CCE<sup>+</sup>12, DGMES13, HFH15, IP15, LD07, SW98, TL18]. **eigenfunctions** [SS16]. **eigenproblem** [CR99]. **eigenproblems** [JM00]. **Eigenvalue** [YLBL12, BPK96, CL07, EJ97, Gna07, HR01, Kos15, LLZ10, MSZ06, Mar94, RSZ11, TZL16, TBD94, XY15]. **Eigenvalues** [CGS93, Jon17]. **eigenvector** [BPK96]. **eigenvector/eigenvalue** [BPK96]. **eighth** [TBD94]. **eighth-** [TBD94]. **EIM** [RH15]. **Elastic** [BC94, Ble07, BGN17, FE15]. **elasticity** [AAQ15, Awa13, BQRB13,

LLS03, Lee16, MC08, PGM09]. **elastomers** [Zhu15]. **elastostatic** [GG16]. **electric** [DD94]. **electrical** [HLN12]. **electrically** [SFDE15]. **Electromagnetic** [CH15, BH02, Cai02, VW05]. **Electromagnetics** [Ano02c]. **electron** [SL15]. **electrophysiology** [GLS15]. **electrostatic** [Tor16]. **element** [AK01, ARPR01, AB11, APV14, AL97, BNP14, BK96, CLLS06, CCG10, CZZ17, CBK01, CDS02, CLZ02, CLZW13, CT17a, CKW10, CG17, DY01, DLZ16, EHS02, FF95, FYL08, FH18, GMM09, GH06, HR01, HX02, Jan98, Jeo98, JM03, JS05, JLZ08, JK08, KORS17, KL00, LL04, LLS03, LB93, LLC16, LL10, LL12b, MR15, MN16, MSZ06, MC08, MS99, MY17, NBL11, PP97, SW96, SXY06, SW98, VW05, WY16, WLPV15, Xie08, XY15, XZ01, Ye00, ZP06, ZSB01a, Zha14, ZPY15, ZT15, ZSHZ15]. **elementary** [FH05, Lóp18]. **elements** [AS02, ASS10, AAQ15, Awa13, BKK17, Bra01, FF95, HS03, HSY16, HY18, LLS94, LLS96, fLL05, LL07a, LPSSP00, SL15, YDF97, YLBL12, Ye04, dFGAJN18]. **elevation** [PK94]. **elimination** [WW12]. **elliptic** [AC05, ACH10, AHC11, CDP03, Cas07, CWX12, CP15, DFR07, FK98, FZ12, FYL08, GM14, GH06, HR01, Hol01, Jan98, Li05a, LMT01, OP11, Pet02, PSNP11, SXZ06, WHS18, XZ03, Yan01, ZB12, Zha14, ZL16]. **embedded** [BR15, She09]. **embeddings** [GHdN12]. **empirical** [CDP09, CHRX06, MNPR06]. **Energetic** [ADG17]. **Energy** [ABI15, Ble07, HL08, Hes09, Leo13]. **Energy-conserving** [ABI15]. **Enforcing** [HSV09]. **engineering** [SEE96]. **enriched** [HT12]. **Entropy** [CDP09, Mai06]. **environment** [ZGGW12]. **epidemic** [Kim06]. **Equal** [CK03a, Möß10]. **Equal-Norm** [CK03a]. **equation** [ADG17, AC00, CLC16, CBK01, Che02, CHS17, CGS93, DD94, DLS14, FZ12, FYL08, GT14, Gil17, yGSIX03, GW14, Han05, HS13, HR02, HY18, HS16, Jeo98, JM03, KP95, KA97, KN14, KNQ16, Kun01, LM14, Li05b, Li08a, Li09, Li10a, LL07b, MS99, MS16, NV10, PM17, PGB15, PTC12, Ryn00, Sch09, SW96, Sto17, TZ07, TGA96, WL12, WZ10, Xu14, ZT14, ZSB01b, ZW12]. **equations** [AG98, AB02, Ang00, APV14, ACH10, AHC11, Awa15, Bai99, BNP14, BP93, BPW95, ByLl01, BF11, BK16, Boc04, Bra01, Bre95, CDP03, CCG10, CJX17, CMX97, CP99, CWX06, CLL08, CLZW13, CS94, CN96, Cum96, CT17b, DFR07, DM93, DPS93, DS01, DX10, ER99, FH05, Fas99b, FR10, GH99, GLO10, Gu17, GH08, yGS08, yGqW09, Han06, HBMY14, Hau97, HL06, HBM03, HS08, HSY16, HY18, Hua06, HZHL12, Jan98, JJLR14, JSSE97, JLZ08, JK08, JRS15, KNP98, KY01, KL17, KHM16, KC16, LN14, Lee03, Li04, Li08b, LC09, LC13, LD16, LZ98, LMY11, Liu99, LHY08, LY08, LLC16, LLY12, Lut04, MN16, MXO13, MY17, MS98, Nail12, Pen98, Pet02, Pla12, PS98, RZ98, She13, SS15, Sun14, gTpM02, TQ17, TSZ98, VW02, lWYG06, WY16, WY17, XH13, Xie08, XZ03, YZ13, ZVW95, ZV08, ZT15]. **equations** [ZD14, ZhXpZ16, dH94, dFGAJN18, vdHv97]. **equilibrium** [sCLC13]. **Equivalence** [SC08]. **Erasures** [CK03a]. **ergodic** [ZXC12]. **ERM** [ZXC12]. **Errata** [Ano04c, Ano08]. **Erratum** [Ano16, Dün12, Fus08a]. **Error** [Alz10, Ang00, Ano01b, CCG10, GRB12, yGW07, KF03, LB93, Sch95, YDF97, aKT17, AK01, ARPR01, Bar03, BGH15, Bra01, CLC16, CBK01, CK11, CLZW13, CCE<sup>+</sup>12, DY01, DLZ16, GN13, HR01, HWZ13, JK08, KY01, KK05, KL17, KNV01, Kun01, LMV11, LMT01, LY01, LL10, LL12b, MSZ06, MRH15, MW01, NSW16, Pet00, Pet02, PS05, RGB13, Sch15, TZ03, War13, WSM13, XHC15, Xu14, Yan01, Yan03, Zha01, ZSB01a, ZC14].

**error-optimal** [Sch15]. **errors** [CLMR15, DM15, Nes16, Wan08]. **ESDIRK** [BBB<sup>+</sup>16]. **estimate** [CK11, CLZ02, DY01, LL10]. **estimates** [ARPR01, AL97, CLC16, CLZW13, DG16, FS98, Füh08, Fus08a, Fus08b, GRB12, Gom95, GZ13, GN13, KY01, KL17, KNV01, LMT01, LY01, Low05, LL12b, MSZ06, PS05, PR99, RGB13, Sch95, Spe17, War13, WSM13, Zha01, ZC14]. **Estimation** [Ano01b, BL09, Bra01, Ehr00, KF03, Kun01, MRH15, MW01, WK93, aKT17]. **estimators** [AK01, Pet02, Yan01, Yan03, ZSB01b, ZSB01a]. **Euclidean** [Bin11, Kun09, NSW98]. **Euler** [AK15, CLC16, KvL95, XKY15]. **evaluating** [WZtX16]. **Evaluation** [CWLH95, GP13, Bar03, CN96, DP13, GG16, IP15, Joh13, Pan95, aKT17]. **evolutionary** [GH99, MU14]. **evolutionary** [BPW95, Xu14]. **Ewald** [Tor16]. **exact** [SLN14, ZV08]. **exactness** [HW12]. **example** [PW94]. **Excesses** [BCHL03]. **Existence** [MSS02, CCH<sup>+</sup>11, Far10, LM06]. **exotic** [IzmCRX03]. **expansion** [CL07, HLN12, LL07a, NP18, aKT17]. **expansions** [Atr12, CI13, Dam07, DHO16, DGS18, HWZ13, JLZ08, LT13, Lóp18, Tem07, WZL17, vdMNS03]. **experimental** [CBK01]. **Experiments** [Wil98, KMO<sup>+</sup>14]. **Explicit** [BCZ05, CHL17, CHMR97, CMR07, CLMR10, Hal95, HH15, Nie98, PIZ01, ZP06]. **exploitation** [AG98]. **exploiting** [AD08]. **Exploring** [CDTV99]. **exponent** [Pla00]. **Exponential** [CM12, JKLY13, ZPR03, LM06, NV10, WZtX16, ZL17]. **exponentials** [CCS16, JGW15]. **extension** [DZ04]. **Extensions** [HR13, CKK16]. **exterior** [GMM09, yGS08, yGjW10, LST11, LG13]. **extraordinary** [Pra98]. **Extrapolation** [LLZ10, fLL05, Xie08, BRZ94, CL07, HZHL12, JLZ08, RZ98, Sid17]. **Extremal** [SW04].

**factor** [Han98]. **Factorization** [CCS16, AH96, GMRS97, Sau06]. **factorized** [NBL11]. **factors** [MN15]. **fairness** [GU02, KP04]. **Families** [MH17, CL02, Gro13, Led15]. **family** [DLUS17, Wat94, Xu98]. **Fan** [Hof06]. **far** [SFDE15]. **Fast** [AZW15, BCM99, IP15, KP98, KN14, MFB<sup>+</sup>11, AC00, BMB14, BA15, Bra01, Cai02, CJX17, Che02, CLL08, DPS93, DLK12, GG16, Han05, JZ10, Joh13, LT98, LLY12, SFDE15, YZ13, SF14, Ste98]. **Fatou** [Cho95]. **feasibility** [sCLC13]. **feedforward** [Mha93]. **FEM** [ADG17, MW01, MS98, Yan03, ZSB01b]. **FFT** [DG16]. **FFTs** [HKR04, Nes16]. **field** [DD94, SFDE15]. **fields** [BH02, GG16, Sor18, TS05]. **Filon** [XHC15]. **filter** [CMX07, CW09, EGL13, Jia09b, TL18]. **filters** [CL02, Jia09b, MWW13]. **financial** [ALZ02]. **finding** [Yao16]. **Fine** [JN18]. **Finite** [BF03, CG17, EHS02, JK08, LMWX13, NBL11, VW05, AK01, ARPR01, AB11, APV14, AL97, AAQ15, BNP14, BKK17, BEPS96, BK96, Bra01, CL12, CDP03, CLLS06, CCG10, CZZ17, CBK01, CCN<sup>+</sup>16, CLZ02, Che06, CLL08, CWX12, CGH<sup>+</sup>13, CLZW13, CEHK18, CKW10, DY01, DLZ16, FF95, FWW06, FYL08, GMM09, Grö03, Hem95, Hem96, HR01, HX02, Jan98, JLZ08, JRS15, KY01, KORS17, KH05, KL00, KHM16, LLS94, LLS96, LLS03, Leo13, LC09, LC13, LL07a, LB93, LLC16, LPSSP00, LL10, LL12b, MR15, MN16, MSZ06, MC08, MY17, NV10, Noe95, PL05, PP97, SL15, SW96, SXYY06, SRFH12, Sun08, TZ05, TZ07, WY16, WZL17, WLPV15, Xie08, XY15, XZ01, YDF97, Ye00, ZSB01a, Zha14, ZPY15, ZT15, ZD16, ZSHZ15, dFGAJN18]. **finite-difference** [JRS15, KY01]. **Finite-element** [NBL11]. **finite-part**

[WZL17]. **finite-volume** [Hem95, Hem96]. **finite-volume-finite-difference** [CEHK18]. **finitely** [MNW04]. **fire** [FPR<sup>+</sup>12]. **first** [CLMR10, HR02, HZHL12, Nai12, Pla12]. **fitted** [KL16, ZL16]. **Fitting** [JF02, BCM99, DZ04, DSS09, WK93]. **Fix** [GW17, WL05]. **Fixed** [CZS16, LSXZ15]. **fixed-point** [LSXZ15]. **flat** [SRFH12]. **flatness** [GL17]. **Flexible** [HL05]. **flights** [ZD17]. **flow** [CLL08, CT17a, HFH15, KH05, LG13, IXyG02, Ye04, ZPY15]. **flows** [BBB<sup>+</sup>16, CD15, KvL95, PIZ01, PCM<sup>+</sup>96, RHZ17, TL18]. **fluids** [DGMM16]. **flux** [DLZ16]. **focal** [PW08]. **fold** [Jia11]. **FOM** [Cul96]. **Foreword** [Buh99, HN96, How96]. **form** [AM14, FGS16, Hub12, LL99, LKW17, Rei93]. **Formal** [Sal98]. **formed** [Mai06, SEE96]. **forms** [Mar95, SM00]. **formula** [CG15, Fra99, SS13]. **formulae** [CG04, GS10, MC10, Xu98, Xu00]. **formulas** [BB07, FXZ96, Jeo98, SX07, Wal95]. **formulation** [CL18, DGMM16, HJH12, MS16]. **formulations** [TW98]. **Fortran** [Kir98]. **four** [GMS12, NSS04]. **four-directional** [NSS04]. **four-point** [GMS12]. **Fourier** [SF14, Ste98, CGW13, FQ10, LL07b, LP14, QW11, SL05, SS13, TZ03]. **fourth** [Li05a]. **fourth-order** [Li05a]. **fractional** [GM17, HX17, KS17, LD16, MNC16, PM17, SU12, TDG16, ZD14, ZD16, ZW12]. **Frame** [CR08, MRS18, CP14, DFR07, Jia09b, KKL03, LL11, MR10, MRS14, PŠWX03]. **framelet** [CCSS09]. **framelets** [Lem09]. **Frames** [BCHL03, BF03, CK03a, CC03, GH03, HM03, HLT11, Jia03, Sun08, BS06, BH15, CL12, CCH<sup>+</sup>11, CK07, CCN<sup>+</sup>16, CKK16, Chr15, CSS98, CHSS03, DST04, DM15, Far10, FGG<sup>+</sup>17, FS07, FOW14, FWW06, Füh08, Grö03, JJK13, LPY10, LMO14, LH13, LL13, MNPW00, Onc14, Søn07, Zha05, CS03]. **framework** [ABC14, DAP13, WZtX16]. **Franklin** [NP18]. **Fredholm** [FR10]. **Free** [KL04, PCM<sup>+</sup>96, CG17, DAP13, JW95, LLS03, Ock96, Urb95, ZL16]. **Free-knot** [KL04]. **Freeknot** [KL07]. **frequency** [GG06, KCW17, LHY08, Onc14, RST<sup>+</sup>14, SF14]. **frequency-concentrated** [GG06]. **friction** [HKRS14, XKY15]. **Friedman** [NP18]. **Froissart** [BC99]. **Full** [DS01, ASS10]. **fully** [LWL17]. **Function** [HM03, Alz10, AM14, Boc04, BCZ05, CTZ02, CGH<sup>+</sup>96, DSW05, EGST13, FF05, IB17, JW95, Kot08, LW14, LLY06, LL99, LT13, Mac94, Mai10, MNW99, MP00, NG99, Rip99, Sch95]. **functional** [Liu99, Sun14, ZD17]. **functional-differential** [Liu99]. **functionals** [MR10, SM00]. **Functions** [Zoz15b, BCM99, BGH15, Bes03, BMB14, BW15, Cai02, Car95, Cas07, CP03, CX04, CSW14, CL16, CTZ02, CG10, Chr15, CSW96, De 06, DG16, DX10, DGS18, Fas99a, Fas99b, FPR<sup>+</sup>12, FHN94, FS98, Füh08, FW15, GP13, GHdN12, GG06, GGL07, Gro13, GH16, GS10, yGSIX03, GYZ17, Han98, Hub12, JS99, Jüt98, KKLY10, KL04, KL07, Le 05, LST11, LM14, Len96, Li04, Li05a, LK05, LWL17, Lóp18, Low05, LP14, MM00, MST05, MNW04, MS04, NP18, NSW16, PŠWX03, Pet00, Pin04, RZ10, RS99, RY13, Sau06, SW06, Sch11a, SS08, SRFH12, Sto96, SM99, TZ05, War13, WH07, Wen95, Wu95, WFL02, WZtX16, Xu98, Zoz15a]. **fundamental** [AC05, Ant18, FK98, LL98, Li05b, Li08a, Li08b, WZ10]. **furnaces** [BGMS07]. **fusion** [CCH<sup>+</sup>11, CP14, LH13]. **fuzzy** [DLK12]. **G** [DDP14]. **G-symplectic** [DDP14]. **Gabor** [CL12, CC03, CKK12, Chr15, DM15, FS07, FGO14, Füh08, JJK13, LL13, LL11, LW03, RST<sup>+</sup>14, Søn07]. **Galerkin** [AK15, AS05, BQRB13, CMX97, CMX02, CP15, CT17a, Cop98, CCE<sup>+</sup>12, DHK98, DS01, FLM96, Gom95, HL06, Hua06,

KNP98, KF03, LN14, LLC16, OBS15, Ryn00, SXZ06, WY16, WY17, ZB12].

**Galerkin-characteristic** [CCE<sup>+</sup>12]. **Gasca** [CP07a]. **Gauss** [Dou94, yGqW09, LT13, SC08, WZL17].

**Gaussian** [CC94, CSW14, MC10, RS99, SX07, SHTS14].

**Gaussians** [Xia13, YZ08]. **Gegenbauer** [ESM13]. **general** [Alb15, ABC14, BCZ05, BRZ94, FHK06, HL16a, Han06, Kos15, RL07].

**Generalization** [NG99, ZXC12, CGP95, CK07, CKBP11, JS95, MNPR06].

**Generalized** [BRS13, Dar03, SL05, WL05, gYyG12, Zoz15b, AB11, CLC16, CG15, sCLC13, CHL17, DP06, GW17, GP13, GRB12, GH99, GW14, IS13, LWL17, MN00, Pen98, SF14, Zoz15a].

**generalized-functions** [Zoz15a]. **generally** [Gon93]. **generated** [CG06, Chr15, CSW96, JS99]. **generating** [CK07, NSS04]. **Generation** [FWW06, SR02, CGR11, Cop98].

**Generators** [Jia03]. **geodesic** [BMK15, SLN14]. **geodesics** [SLN14].

**Geometric** [GPG15, Mai10, MO16, PFMS05, BS06, BI11, BWX97, FH05, JKK<sup>+</sup>12, LM04, Leo02, LO08].

**Geometrical** [Ano02d]. **geometrically** [ZXC12]. **geometry** [PW08, PGM09, PGB10, RAB<sup>+</sup>09].

**Gersgorin** [Hof06, CKBP11]. **Gibbs** [RY13]. **Ginzburg** [HX02, LL07b]. **Givens** [CM99]. **Global** [Kim06, LSW17, Len94].

**globally** [BF94]. **GMRES** [BCM99, Cul96, MS98, Smo07, dH94, dCB07].

**GMRES/FOM** [Cul96]. **good** [Rip99, Sch11b, WS01]. **Gordon** [GW14].

**grad** [JJLR14, dFGAJN18]. **Gradient** [DY01, BMK15, DSS09, Wan12, Yan01, Yan03, Zha01]. **gradients** [YWC12].

**Graduated** [BCE<sup>+</sup>09]. **Gram** [CK07].

**graph** [DGMES13, DT12]. **graphs** [KK02].

**grating** [BBR02, LN14]. **Greedy** [GN01, Tem01, Tem07, TYY11, DT96, GN08, LT06, LT12, QW11, Tem98, Tem00, Tem02].

**green** [FY13, Cai02]. **Gregory** [Ano93].

**Greville** [CHY11]. **grid** [BNP14, BMK15, Che06, DG16, Hem95, KHM16, MR15, PGB15, XZ01, Hem96].

**grids** [ANSZ17, BNR00, FF05, Hag98, KXZ04, LQ14, Noe95, Pla00, PS05, SXYY06, Ste98, Wie97, Zha01]. **Grossman** [JMO00].

**growth** [RH15, RS99]. **Guaranteed** [HFH<sup>+</sup>07]. **Gudkov** [Hof06]. **Guest** [Ano95]. **guided** [BPJ02]. **Gupta** [Ock96].

**h** [WY17]. **Haar** [ZhXpZ16]. **habil** [Sil99].

**Hadamard** [WZL17]. **half** [GG16, Li94, LWL17, lWyG06, gYyG12].

**half-plane** [Li94]. **half-space** [GG16].

**halfband** [MWW13]. **Hamilton** [TQ17].

**Hamiltonian** [ABI15, DDP14, JM00, Mar94, MO16].

**Hammerstein** [KNP98]. **hand** [FR10].

**Hankel** [AM14, Li94]. **Hanrahan** [Han05].

**hardening** [GN13]. **Hardy** [CS06].

**harmonic** [HS13, HY18, KP98, LHY08, Sch09, WZtX16, Xu04a]. **harmonics** [FM14]. **HCT** [LLS94]. **HDG** [MNC16].

**heat** [BDMR10, CN96, HT11, HXC10, JGW15, LM14, MS16, PCM<sup>+</sup>96, TGA96].

**heat-conduction** [CN96]. **heating** [BGMS07]. **Heaviside** [RY13]. **helical** [Mon09]. **Helix** [PW94]. **Helmholtz** [DRS08, DLS14, GMM09, HH15, HJH12, HY18, Kir98, Li08b, Li09, Sto17].

**hemivariational** [Yao16]. **Hermite** [ABD08, ABY13, CCS16, DM99, FaKS02, Fas99a, Fra99, Füh08, yGSIX03, Hak00, JL06, KJ09, Luo99, MST05, MS12, Moo17, PFMS05, RSA14, SX95, TQ17]. **Hermitian** [WMY13, WMB13].

**Hessenberg** [EGST13].

**heterogeneous** [TS05]. **Heuristic** [MN15, DGMES13]. **Hexagonal** [Jia09b].

**hidden** [CLM96b]. **Hierarchical** [Spe17, Han05]. **High** [BNR00, CEHK18, HBMY14, LD16, NP18, Nov00, ZD16, ZZ09,

CLM03, Han10, HKR04, HS03, JMO00, Jia09b, JN18, LL12a, MS04, TL18].

**High-order**

[CEHK18, HBMY14, HKR04, JN18].

**high-pass** [Jia09b]. **High-precision** [NP18].

**Higher** [CWX12, MRS03, CDP03, Füh16, GW17, KL16, Mat09, Noe95, OBS15, WOBL17, Wie97]. **Higher-order**

[CWX12, MRS03, GW17]. **highly** [DGMES13, XHC15]. **Hilbert**

[BMB14, Chr15, Dam07, HT11, MXY13, RY16, SM99, Yao16, vdMNS03]. **histogram** [CP07b]. **hodograph**

[AF96, FS94, FaKS02, FGS16, JKK<sup>+</sup>12, KJ09, PFMS05, Pot95, RSA14]. **holonomic**

[WOBL17]. **homoclinic** [CS93]. **homogeneous** [AK01, BC99, DST04, Jia09a, LR07, ZGGW12]. **homogenized**

[Str95]. **homological** [PR15]. **homology** [PR15]. **Homotopy** [PM17, AF96]. **Hood**

[fLL05]. **Hopf** [CGS93, ER99, Far10]. **Householder** [FWW06]. **Hunting** [CS93].

**Huygens** [IKS10]. **Hybrid** [CM96, LQ14, BPJ02, sCLC13, CEHK18].

**hyper** [AZW15]. **hyper-reduction** [AZW15]. **Hyperbolic**

[Len96, CKM99, KK05, KF03, MV01, ZQ13]. **hypergeometric**

[CDTV99, DGS18, LT13, NP18]. **hyperinterpolation** [Li08b].

**hypersingular** [DLS14, HWZ13, MS99].

**ideal** [She08]. **idealized** [Jia09b]. **ideals** [MS04, Xu00]. **identical** [XP10].

**identification** [BJX09, FYL08, SJJL15, Tan17]. **identity** [GMB97, TSY10]. **II** [CMX97, DPS93, HL06, Hof06, MPS97, SS13, zCFX07]. **ill**

[Ant18, BL09, BE00, LLY12, XY12]. **ill-posed** [BL09, BE00, LLY12, XY12].

**image** [BCE<sup>+</sup>09, CZS16, Del17, DLK12, JZ10, LSXZ15, MSXZ13, RWT13, SX09].

**images** [RY16, SF14]. **imaging** [BKN11, DGK15, KMO<sup>+</sup>14]. **immersed**

[CLLS06, CZZ17, CKW10, GPG15]. **impedance** [HLN12, QC12].

**implementation** [DHO16, Jan98, dH94]. **Implicit** [Wie15, XKY15, BB07, CLC16, CLM03, EJ97, GH08, GPG15, HBM03, Mui99, vdH93, vdHv97, vdHS00].

**implicit-time** [GPG15]. **implicitly** [FMR00]. **implicitly-defined** [FMR00]. **imposed** [Awa13]. **Improved** [Fus08a, Fus08b, KL17, FJ99, Sto17].

**inclusions** [nCV13]. **incompressible** [Ang00, BQRB13, CLL08, HFH15, KH05, IXyG02, Ye04, ZVW95]. **increasing** [CSW14]. **increasingly** [SRFH12].

**independence** [Ito96]. **independent** [CTZ02, DS00, DSW05]. **Index** [Ano02a, Ano02b, Ano03a, Ano03b, Ano04a, Ano04b, Ano00a, Ano01a, Cum96].

**indexing** [dB00]. **indicator** [ZQ13, ZG16]. **indicators** [LQ14]. **induced** [CGR13]. **induction** [BGMS07]. **Inequalities** [GG06, Alz10, BR07, RZ10]. **inequality** [JRS15, LB93, Yao16]. **inf** [dFGAJN18].

**infinite** [BD10, Buh06, FF05, IXyG02, Zhe06]. **infinitely** [RZ10]. **influence** [EHV17]. **initial** [Alb15, vdH93]. **initial-value** [vdH93]. **injectivity** [FK10]. **inner** [Joh13, Pin04]. **innovation** [Sun08]. **input** [CP15]. **insertion** [BGM93, KLNS95, Wal95]. **instability** [TBD94]. **integer** [CHSS03]. **integrability** [RS01]. **Integral** [KNQ16, AG98, Boc04, CWLH95, CMX97, CP99, Che02, CHS17, Cum96, Dar03, DD94, FR10, Gil17, Gna07, Gu17, HBMY14, HJH12, HR02, Hua06, HZHL12, HS16, JSSE97, Kir98, KN14, LN14, Li09, LZy98, LLY12, MS99, Nai12, Pla12, RZ98, Ryn00, TW98, TSZ98, VC00, WL12, XH13, Xu14, YZ13]. **Integrals** [Zoz15b, CLMR10, CKP13, DL98, DG13, HWZ13, MV99, NUWZ17, VC00, WZL17, XHC15, Zoz15a]. **integrate** [FPR<sup>+</sup>12]. **integrated** [BPJ02].

**Integration**

[HW00, DDP14, DL98, ESM13, HW12, MO16, Nov00, NSW16, Pei05, SW04, ZB12].

**integrators** [KL16, OBS15, WOBL17, WZtX16, dLdDSM07]. **integro**

[JLZ08, WY17, ZV08]. **integro-differential** [JLZ08]. **interface** [BK96, CZZ17, CKW10, DLZ16, FZ12, KP95, WHS18, ZL16].

**interface-fitted** [ZL16]. **interfaces** [BK96].

**Interior** [AL97, NV10]. **interpolant**

[Düm09, SW08]. **interpolants** [ABC14, ABY13, GMB97, MS07, Rem12, Spe17].

**Interpolating**

[CT05, AF96, BL99, CGM01, DL98].

**Interpolation**

[BLS02, CG06, DG13, GY99, Noa02, Pet96, RGB13, dB07, ABD08, AM14, BNR00, BS05, ByLl01, Buh06, Cal05, Car95, CG04, CS06, CM03, DSW05, DS10, DAP13, DM99, FaKS02, FGS13, Fas99a, FP99, FE15, FF05, Fra99, GS00, GRB12, GO05, Hak00, HL16a, JKK<sup>+</sup>12, KJ09, Kun09, Kva14, LL98, LW04, LM04, Le 00, LLY06, LL99, LR07, LZy98, LL07a, Luo99, LNw02, MS00, NSW98, NZ04, NSZ04, Osw04, PFMS05, RZ10, RS99, Rip99, RSA14, Sau95, SX95, Sch95, Sch11b, SS96, SS15, SRFH12, Ven94, WS01, WL05, Xu00, Xu04b, dB00, dB06, vdMNS03, zCFX07].

**interpolation-free** [DAP13]. **interpolative** [VM17]. **interpolators** [Led15].

**Interpolatory** [Zhe06, CGR11, CGR13, DG16, DLUS17, JS99, KKLY10, ZA10].

**intersecting** [LD07]. **intersection** [BX94].

**intersections** [HFH<sup>+</sup>07]. **Intertwining**

[Cal05]. **interval**

[ČF11, JL06, Jia09a, MS99, PST95, gTpM02].

**intervals** [LMV11]. **Introduction**

[AX98, Bar94, HAS05, Mar95]. **invariance**

[CL12]. **Invariant** [MT98, CHL17, FaKS02, GU02, HHS04, Mai06, MXZ08, NSW16, Sun10, Wat94, vdMNS03]. **invariants**

[DGMES13]. **inverse**

[BDMR10, CR99, CH15, CHY10, HO15, HXC10, IKS10, QC12, RSZ11, San15, WL12].

**inverses** [NBL11, SU12]. **Inversion**

[SS13, GPT17, Li03, LL12a]. **Inverted** [BKK17]. **involving** [Sto96, Tom96, nCV13].

**Irrational** [yGS08]. **Irregular**

[CC03, CLL08, FS07, Noe95, Pla95, Zha01, ZhXpZ16]. **isometry** [SL12]. **isomorphism**

[DGMES13]. **isospectral** [PIZ01]. **isotropic**

[BCE<sup>+</sup>09, PGM09, RAB<sup>+</sup>09]. **issue**

[Año16, BOP<sup>+</sup>15, CHY10, XY12]. **Issues**

[BPW95, Cai02]. **iterated**

[BS97b, BS97a, BS00, CTZ02]. **iteration**

[BCM99, RSZ11]. **Iterative** [Cul96,

BBB<sup>+</sup>16, FP99, GO95, IKS10, LNw02,

WW12, WMY13, ZT14, dH94, dCB07].

**Jacobi**

[ByLl01, CR99, DHO16, TQ17, gYyG12].

**Jacobi-type** [DHO16]. **Jacobian** [ZD14].

**Jacobian-predictor** [ZD14]. **John**

[Año93, How96, New96]. **joint**

[FRT09, Möß10]. **Julia** [Cho95]. **jump**

[ZhXpZ16]. **junction** [WHS18]. **Justen**

[HR13].

**Kantorovich** [BR07]. **Kármán**

[MN16, Mur08]. **Kelvin** [BNP14]. **kernel**

[BJX09, DS10, DL04, FY13, Gna07, HH15, HS08, HT11, HJJV97, JSSE97, JGW15, KNP98, RY16, SS16, Xu14, YZ13, vdMNS03].

**kernel-based** [DS10, SS16]. **kernel-split**

[HH15]. **kernels** [BRS13, BRSV15, Cop98,

FJ99, FY13, GW17, HS13, LMWX13, LS05,

Opf06, SW06, Sch09, SHTS14, ZJ06]. **kind**

[CMX97, CP99, CHS17, HR02, HZHL12,

HS16, LL04, Nai12, Pla12, TW98].

**Kinematic** [SR02]. **Klein** [GW14].

**Knopoff** [XKY15]. **Knot**

[BGM93, KLNS95, KL04, LY07, Wal95].

**knots** [Plo95, Str95]. **Kohn**

[CGH<sup>+</sup>13, GP14]. **Krylov** [ZVW95]. **KSR**

[BF94]. **KSR-1** [BF94]. **Kutta** [CSWP99,

BP93, BS97b, BS97a, BS00, CHMR97,

CLM03, CMR07, CLMR10, CLMR15, Hal95,

JMO00, Liu99, Mui99, vdHdS97, vdHS00].

**Kutta-collocation** [Liu99].  
**L1** [MSXZ13]. **L1/TV** [MSXZ13]. **lacunary** [Ven94]. **lag** [BP93]. **Lagrange** [Cal05, CG04, Hu07, Kun95, LL98, NZ04, NSZ04, WLW16]. **Lagrangian** [XWL13]. **Laguerre** [DGS18, yGjW10, LWL17, PGM09, PGB10, lWyG06, lXyG02]. **Lambert** [CGH<sup>+</sup>96, IB17]. **Landau** [HX02, LL07b]. **Laplace** [BW15, HS13, KP95, KN14, LM14, LL12a, PTC12, Sch09, WZ10]. **Laplacian** [Jon17, SU12, TDG16]. **Laplacians** [CW16]. **large** [BF11, SI15, SFDE15, ZPY15]. **large-scale** [BF11]. **laser** [GN13]. **lattice** [FGO14, GH99, NSW16]. **Lattices** [CC03, CG06]. **Laurent** [GMRS97, Lev99, MS04]. **Lauricella** [BW15, TZ05]. **laws** [KK05, MV01, XKY15, ZQ13]. **Lax** [GLS15]. **layer** [CLM96b, IMS99, aKT17]. **layered** [Cai02, Wat96]. **layers** [Kno09, LZZ09, ZL17]. **Learning** [GS13, MNPR06, XP10, YZ08, YWC12, GZ13, GYZ17, LMWX13, LS05, RZ10, SW06]. **Least** [FHN94, JF02, WK93, CHY11, LK05, Pla00, Sto96, SW10, Tom96, ZPR03]. **Least-Squares** [JF02, LK05, Sto96]. **Lebesgue** [Las16]. **Leer** [CT17b]. **Leer-type** [CT17b]. **Leffler** [GP13]. **Left** [SU12]. **Left-inverses** [SU12]. **Legendre** [yGqW09, yGjW10, HKR04, gTpM02, lXyG02]. **lemma** [HHS04]. **level** [Bre95, DMMS11, HL06, HT12]. **life** [FRT09]. **like** [ZT14]. **likelihood** [BL09]. **Limitations** [CLM96b]. **line** [Dam07, GP13, LWL17, MV99, NUWZ17, VC00, lWyG06, gYyG12]. **Linear** [GPS10, HL96, AH96, ABY13, Bai99, BKN11, BP11, Cas07, CJ07, CD15, CL18, Dün09, Han10, Ito96, KA97, KL17, KvD01, LLS03, LY07, LMV11, LY08, MC08, MPS96, MPS97, MO16, MV01, MS16, PGM09, PP97, Sch15, TZL16, VK96, WMB13, Wil98, dH94, dCB07, vdHdS97]. **linear-constant** [LY08]. **linear-phase** [Han10]. **linearization** [HX02]. **linearizing** [XWL13]. **Linearly** [SW06, CTZ02, DS00]. **lines** [BEG17]. **link** [Len94]. **Liouville** [GM17, KS17]. **Lippmann** [Che02]. **Lipschitz** [GH16]. **liquid** [HY14, Zhu15]. **LLT** [zCpST09]. **loads** [FE15, GM14]. **Local** [ANSZ17, FGS16, KK05, Mat09, Sun10, XZ01, ARPR01, AZW15, ABC14, APV14, AS05, BCE<sup>+</sup>09, DL98, DZ04, GY00, Han12, HHS04, HT12, HSV09, HY18, LSW17, Len94, LWY06, MSZ06, MRS18, Spe17, SZ09]. **Localization** [CP03, Lem09, MSST14]. **localizations** [Kos15]. **Localized** [Grö03, Sun14, Rau05, RST<sup>+</sup>14]. **Locally** [DS00, CTZ02, GH16, KC16]. **locations** [DSW05]. **locking** [LLS03]. **locking-free** [LLS03]. **logarithmic** [JSSE97, KNP98]. **logarithmic-kernel** [JSSE97]. **long** [LL07b, Xu14]. **long-time** [LL07b]. **Lorentz** [DKB99]. **loss** [GYZ17]. **Lotka** [SC08]. **low** [AL97, BH15, CLMR15, KvL95, LHY08]. **low-frequency** [LHY08]. **low-redundancy** [BH15]. **low-subsonic** [KvL95]. **lower** [Mai05]. **lowest** [ZT15]. **Lyapunov** [LMV11, Pen98].  
**machine** [RZ10, SW06]. **Machines** [EPP00, CX06]. **macro** [AS02, ASS10, LL04]. **macro-element** [LL04]. **macro-elements** [AS02, ASS10]. **magnetohydrodynamic** [RHZ17]. **MALDI** [KMO<sup>+</sup>14]. **manifold** [Mai10]. **manifolds** [GH16, Hol01, LR07, Mai06, Moo17, Noa14, YZ08]. **many** [MNW04]. **map** [Far10, San15, WL12]. **mapping** [CWLH95, EGST13, TB16]. **mappings** [FK10]. **maps** [FPT06, HR17]. **marching** [Awa15, DD94]. **Mariano** [CP07a]. **market** [ALZ02]. **Markov** [DMMS11, ZXC12]. **Masks** [Jia03, De 06, Gon93, Han10, LP10, Zhe06]. **matched** [LZZ09]. **Material** [XB05].

**materials** [HXC10]. **Matérn** [BRS13]. **Math.** [Fus08a, Hem96]. **Mathematica** [CKP13]. **Mathematical** [SEE96, CLM96a, SX09]. **mathematics** [BOP<sup>+</sup>15, Ano16, Ano03c, Ano04d, Ano04e, Ano04f, Ano05a, Ano05b]. **Matrices** [BMSZ01, Chi03, AD08, AH96, BGM93, CR99, Dai16, EGL13, FMPS13, GP95, LH13, Möß10, Peñ11, Tom96]. **Matrix** [Low05, AC00, BD93, BI11, BR07, CMX07, Cop98, DY10, ESM13, EGST13, FKS05, FE15, Fus08a, Fus08b, GM17, Han06, HHS04, JL97, KA97, VM17, WLW16, DPS93]. **Matrix-valued** [Low05, Fus08a, Fus08b, HHS04]. **Matzinger** [DKB99]. **Maximal** [BS05]. **maximizing** [Bün11]. **Maximum** [CK11, CHSS03, KL17]. **maximum-norm** [KL17]. **Maxwell** [AB02, HY18, KCW17, LHY08, VW02, Xie08]. **mean** [FK10, RGB13]. **means** [BI11, Xu04a]. **Measurable** [GH03]. **measure** [CMP07a]. **measurement** [FZ12]. **measurements** [Zwi94]. **measures** [GU02, MSST14, MRS03, MT98]. **measuring** [DL04]. **mechanical** [HZHL12]. **media** [Cai02, DGMM16, TS05]. **medial** [CCH<sup>+</sup>08]. **median** [Osw04]. **median-interpolation** [Osw04]. **medians** [GY99]. **melting** [PCM<sup>+</sup>96]. **memoriam** [Ano93]. **memory** [IP15, Jan98]. **Merrien** [Sab04]. **mesh** [BS05, DM99, LLS96, LL98, MSS02, NSS04, ZL16]. **meshes** [AAQ15, DY01, FPT06, GH06, HSY16, KP98, Kun01, LL10, LL12b, Mat09, Pla95, PW08, PGB10, ZWDD16, ZL17, ZC14, ZD16]. **Meshfree** [TS05]. **meshless** [AS05, FS98, HS08, HS13, KH05, Sch09, Sch15, ZB12]. **Metamorphosis** [RY16]. **method** [AF96, ARPR01, AC05, AB11, Ant18, APV14, AL97, AC00, ACH10, AHC11, AS05, BQRB13, BK16, Boc04, BK96, BS97a, CJX17, CEL15, CDS02, sCLC13, CMX97, CLZ02, CLL08, CZS16, CT17a, CKW10, CL02, CN96, CHY11, CCE<sup>+</sup>12, DHK98, DLS14, EHV17, FK98, FGO14, FH18, GM17, GG16, Gna07, Gom95, Gu17, GH06, yGW07, yGjW10, GW14, GPG15, Han05, HKRS14, HL06, HH16, HR13, HO17, HAS05, HX17, Hu07, HXC10, HY14, HY18, HS16, IUV17, Jan98, JM03, JS05, JK08, KNP98, KY01, KH05, KHM16, LN14, LLS03, Li05b, Li08a, Li08b, LC09, LG13, LC13, LZY98, LLC16, LWL17, MR15, MR96, MV99, MST05, MY17, MS98, Mur08, OP11, PM17, Pla12, Ryn00, SL15, SXYY06, SW98, TZL16, lWyG06, WY16, WY17, WHS18, WZ10, Wie15, WLPV15, WZtX16, Xie08, lXyG02, Xu14]. **method** [Yao16, gYyG12, ZT14, ZP06, Zha14, ZPY15, ZT15, ZW12, ZL16, ZhXpZ16, lZmCRX03, ZQ13, Zhu15, ZG16, dCB07]. **Methods** [Ano01b, ASU17, ABI15, AK15, Awa15, BP93, BCM99, BBB<sup>+</sup>16, BDMR10, BEPS96, BJX09, BS97b, Bur97, BS00, But97, CDP03, CLM03, CLMR10, CLMR15, CZZ17, CMX02, CWX06, CWX12, CL16, CEHK18, CSWP99, Cul96, Cum96, DDP14, DFR07, DPS93, DMMS11, DS01, DRS08, DLZ16, DT12, EJ97, FLM96, Fas99b, FYL08, FR10, FS98, GMM09, GO95, yGqW09, HBMY14, Hau97, HS08, HR02, Hua06, HZHL12, IKS10, JMO00, JSSE97, JLZ08, KXZ04, KN14, KNQ16, LW04, Lee03, Lee16, Li05a, LK05, LMV11, Liu99, LLY12, LL10, LL12b, LNW02, MN16, MNC16, Nai12, Nie98, PIZ01, PS98, Ram95, RWT13, RZ98, Sch15, SXZ06, SX09, Sid17, gTpM02, TBD94, TGA96, VC00, Wan12, WL12, WMY13, WMB13, Wie15, Wil98, XB05, XZ03, XY12, ZVW95, ZB12, ZD16, vdH93, vdHdS97, vdHv97, vdHS00]. **metric** [CZS16, LD07]. **MFS** [FKS05]. **Microlocal** [GL17]. **midpoint** [SC08]. **Mindlin** [AL97, Ye00]. **Mini** [KL00]. **Minimal** [Sid17, Xu98, PGM09, Wen95]. **minimax** [Yao16, Zwi94]. **Minimization** [MR10, CM96, zCpST09, CZS16, DT12, Fli18, FRT09, GN08, HH16, MNPR06, WFL02].

**minimizations** [ZYY16]. **minimizers** [MRS18]. **Minimizing** [Bün11, Far10, FGS13, FGG<sup>+</sup>17]. **Minimum** [Noa14, ABC14]. **Minkowski** [FMR00, FH05, KJ09]. **MIRKs** [Ben97]. **misclassification** [CM96]. **missing** [CCSS09, Sch11a]. **Mittag** [GP13]. **Mittag-Leffler** [GP13]. **Mixed** [AAQ15, Li05a, lXyG02, AK15, Awa13, CHM18, DGMM16, DLZ16, FF95, GMM09, Gil17, JLZ08, Lee16, LMT01, MS16, Xie08, YDF97]. **MLPG** [AS05]. **mode** [CHR06]. **Model** [BOP<sup>+</sup>15, SS15, AV15, AL97, BNP14, BGH15, CHM18, zCpST09, FE15, GLS15, HY14, HX02, JZ10, KORS17, Kim06, KCW17, MSXZ13, Ock96, RH15, SI15, XKY15, Yan03, ZPR03]. **Modeling** [Ano02c, IL16, BWX97, DAP13, TS05, ZPR03]. **modelling** [SEE96]. **models** [ARAK09, CLM96a, CGH<sup>+</sup>13, CW09, PGB15, RWT13, Wat96]. **modes** [BPJ02]. **modification** [FGS16]. **Modified** [KL00, WMY13, Bai99, Li08b, RJ00, WLW16]. **modular** [TL18]. **Mollification** [BB07]. **mollifiers** [CGW13]. **moment** [BR07, Füh16, TQ17]. **moment-based** [TQ17]. **moments** [CHR00, CHSS03, CaL06, CCH<sup>+</sup>15, Han10]. **Monge** [Awa15]. **mono** [Mui99]. **mono-implicit** [Mui99]. **monomials** [dB07]. **Monotone** [Kva14, ABY13, yGmW98, KL04, KL07, nCV13, Wan12]. **monotonic** [Xu14]. **monotonicity** [FP98, FBCR13]. **monotonicity-preserving** [FBCR13]. **MoRePaS** [BOP<sup>+</sup>15]. **Morley** [HSY16, YLBL12]. **morphing** [LD07]. **mortar** [FH18]. **mortaring** [LRS12]. **motion** [BNP14]. **motions** [FGS13]. **motivated** [Wie97]. **moving** [BMSR<sup>+</sup>16, FE15, Ock96, TZ03]. **MR0019410** [CN96]. **MR1338896** [Hem96]. **MR2438345** [Fus08a]. **MR2783300** [Dün12]. **MR3428571** [Ano16]. **MR3428572** [Ano16]. **MR3428573** [Ano16]. **MR3428574** [Ano16]. **MR3428575** [Ano16]. **MR3428576** [Ano16]. **MR3428577** [Ano16]. **MR3428578** [Ano16]. **MR3428579** [Ano16]. **MR3428580** [Ano16]. **MRA** [PŠWX03]. **Multi** [HL06, LSXZ15, RZ98, BR15, CMR07, CaL06, CHS17, HH16, KCW17, LY07, LMWX13, Onc14, PGB15, gTpM02]. **multi-asset** [PGB15]. **multi-block** [HH16]. **multi-dimensional** [BR15, Onc14]. **multi-frequency** [KCW17]. **multi-interval** [gTpM02]. **multi-knot** [LY07]. **Multi-level** [HL06]. **Multi-parameter** [RZ98]. **multi-revolution** [CMR07]. **Multi-step** [LSXZ15]. **multi-subdomain** [CHS17]. **multi-task** [LMWX13]. **multi-wavelets** [CaL06]. **multibody** [FE15]. **multicategory** [CX06]. **multidelay** [ZV08]. **multidelay-integro-differential** [ZV08]. **Multidomain** [BK16]. **multifilter** [Jia00]. **multiframelets** [LYY13]. **Multigrad** [BH02, BA15, BEPS96, GPG15, Hem95, Hem96, KXZ04, KvL95, SXYY06, ZVW95]. **multilayer** [WFL02]. **multilayered** [Mha93]. **Multilevel** [BMK15, CWX06, KP95, Kun95, XH13, CHM18, DMMS11, Fas99b, GJS14, GO95, HX02, Nie98]. **multimedia** [Ren09]. **Multiobjective** [IUV17]. **Multiparameter** [BJX09]. **Multiple** [HJH12, CDTV99, GPT17, MXO13, Plo95, Yao16]. **multiplication** [AC00, BD93]. **multiplier** [Hu07, WLW16]. **multipliers** [Kun95]. **multiply** [HL16b, San15]. **multiply-connected** [HL16b]. **multipoint** [DLZ16]. **multipole** [GG16]. **multiquadratic** [FHN94]. **Multiquadrics** [BLS02, Buh06, HL16a]. **multiresolution** [ADL11, AL13, ABD08, CGRS15, Jia11, KKL03, RAB<sup>+</sup>09]. **Multiscale** [CL16, Opf06, BJO9, GL17, Hua06, JK08, KORS17, LW14, LSW17, Li03, LLY12, MR15, Var96]. **multisplitting**

[WMY13]. **Multistep** [FJ99, BS97b, BS97a, BS00, Wil98].  
**Multivariate** [BL99, Car95, LP04, MS04, SRFH12, BC99, BCZ05, Cal05, CHR00, CMX07, CDTV99, DS13, Lai06, Le 00, Li04, NSW16, Sau95, SX95, Sau06, SS96, SW08, dB00, Sch04].  
**Multiwavelet** [HM03, PS98, LYY13, CMX97].  
**multiwavelets** [MS97]. **multiwindow** [JJK13]. **Mumford** [KPY09].

**nat** [Sil99]. **native** [Fus08a, Fus08b].  
**natural** [Dou94]. **nature** [LO08]. **Navier** [Ang00, APV14, CHM18, CGS93, HL06, JK08, LC13, PCM<sup>+</sup>96, ZVW95, dFGAJN18].  
**Near** [BDKY02, DSW05, MM00, SFDE15].  
**near-field-to-far-field** [SFDE15].  
**Near-optimal** [DSW05]. **necessary** [MNPR06]. **Nédélec** [Xie08]. **Nested** [ZT14, KP98]. **nets** [Sto96]. **network** [CD15, Len96, Mha93]. **Networks** [EPP00, Noa96, BE00, CLM96b, Len94, MM00, MNW99, Nee96, Wat96]. **Neumann** [AHC11, LST11, WL12, ZB12]. **neural** [BE00, CLM96b, Len94, Len96, MM00, Mha93, Nee96, Wat96]. **neutral** [ZV08].  
**Newton** [CG15, EHV17, HY14].  
**Newton-penalty** [HY14]. **Newtonian** [DGMM16, Li10b]. **Nirenberg** [GP14].  
**Nitsche** [LRS12]. **Nitsche-mortaring** [LRS12]. **no** [Fus08a, Hem96]. **node** [Gom95]. **noise** [LO08]. **noisy** [BE00, NG99, RH12]. **Non** [Dün09, LW03, AK01, ABY13, Atr12, ANSZ17, CJ07, CGR11, DLUS17, DY01, Fra99, JKLY13, JM00, Lev99, LHY08, LP14, MO16, PSNP11, TYY11, Wan12, WMY13, WMB13, XP10, ZWDD16, ZB12, ZD16].  
**non-autonomous** [MO16]. **non-constant** [ZB12]. **non-greedy** [TYY11].  
**non-Hermitian** [WMY13, WMB13].  
**non-homogeneous** [AK01]. **non-identical** [XP10]. **Non-linear** [Dün09, ABY13, CJ07].

**non-monotone** [Wan12]. **non-oscillatory** [DLUS17]. **non-overlapping** [LHY08, PSNP11]. **non-periodic** [LP14].  
**non-polynomial** [Fra99]. **non-rectangular** [ZWDD16]. **non-selfadjoint** [JM00].  
**non-stationary** [CGR11, JKLY13].  
**Non-Uniform** [LW03, Atr12, ANSZ17, DY01, Lev99, ZD16].  
**nonconforming** [LLS03, LY08, MC08].  
**nonconvex** [SL12]. **nonequispaced** [Nes16, Ste98]. **nonhomogeneous** [AC05, HY18, Li04]. **nonintrusive** [CEL15].  
**Nonlinear** [AL13, Noa98, ADL11, AZW15, BQRB13, CLC16, DKLT93, GH99, GMS12, yGmW98, GW14, KNV01, LT98, MN15, Osw04, QWXZ10, Sun14, TL18, XZ01, XZ03, ZPR03].  
**Nonlinearity** [Ito96]. **nonlocal** [FLM96, TDG16]. **nonmatching** [PS05].  
**nonnegative** [Gon93]. **nonregular** [LT98].  
**Nonstandard** [MC10]. **Nonstationary** [DM15, Pit16]. **nonsymmetric** [dH94].  
**Norm** [CK03a, Bin11, CK11, KL17, Nie98, ZPR03].  
**normal** [GG16]. **Normalized** [BF03, JKLY13]. **norms** [MRS18, Wat94].  
**note** [BI11, CLZ02, Dai16, Del17, Kun09, Ste98].  
**Null** [KCW17]. **number** [RJ00, TL18].  
**number-theoretic** [RJ00]. **numbers** [Sch95]. **Numerical** [AG98, CGH<sup>+</sup>13, CCH<sup>+</sup>15, Cum96, DDP14, DL98, ER99, FR10, FQ10, GT14, Hau97, HW12, HXC10, Kei95, KMO<sup>+</sup>14, Mar94, OS09, Pen98, PST08, RHZ17, She13, SJJL15, TBD94, WH07, XY12, ZVW95, ZGGW12, ZB12, ZD17, ADG17, BPW95, BF11, BGMS07, Bes03, Ble07, BP11, Cas07, CX04, CN96, CT17b, DHK98, DD94, DLP98, EJ97, FM14, GVSLN96, HO17, Hol01, KS17, LLS09, LL12a, Lut04, Mur08, OP11, SW04, WHS18, WLPV15, XL10, BMSR<sup>+</sup>16].  
**numerically** [AD08]. **NURBS** [BX94].  
**Nyström**

[CSWP99, DLS14, HBMY14, HH15, LG13].  
**Nyström-type** [CSWP99].

**objects** [SF14]. **oblique** [CG10].  
**Observability** [JRS15]. **observable**  
 [LSLS14]. **Observations**  
 [DHK98, GPT17, XWL13]. **observers**  
 [GT14]. **obstacle**  
 [BBR02, IKS10, LMT01, Yan01]. **obstacles**  
 [CH15, ZGGW12]. **ocean** [SI15]. **ODE**  
 [AB97, Ben97]. **ODEs**  
 [Bur97, EJ97, JM00, WK93]. **offset**  
 [PGB10]. **offsets** [CCH<sup>+</sup>08]. **One**  
 [ZYY16, CLM96b, HT12, KORS17, LZZ09,  
 MS12, XKY15, ZG16]. **one-dimensional**  
 [LZZ09, XKY15, ZG16]. **one-level** [HT12].  
**Online** [GYZ17, Yin07]. **onset** [IL16]. **onto**  
 [CWLH95]. **open** [CL18]. **operational**  
 [ESM13]. **operations** [PR15]. **operator**  
 [BMK15, DFR07, FQ10, GM14, Lut04,  
 MC10, RH12, RSZ11, XZ03]. **operators**  
 [BDD06, CS06, CCS16, DL04, DY10, FY13,  
 Gna07, GLT93, GP14, JL97, KP98, Kir98,  
 KK02, Len96, Li94, LT98, MR10, MXZ08,  
 PL05, nCV13, ZD16]. **Optics**  
 [Ano02c, BKN11, BPJ02]. **Optimal** [BEG17,  
 CS06, CKW10, Dūn11, GL13, LO08, MRS14,  
 Maz04, Mui99, CLC16, CLZ02, DSW05,  
 DP13, GHdN12, GH06, GN13, HJJV97,  
 KP95, Lee03, LY01, MRS03, NZ04, RH12,  
 RJ00, Sch15, Yan03, dLdDSM07, Dūn12].  
**optimality** [CP93, MM00]. **Optimally**  
 [LP04, ČF11, RST<sup>+</sup>14]. **Optimization**  
 [SLN14, BHT11, BA15, CD15, ESM13,  
 IUUV17, LSXZ15]. **Optimized** [Onc14].  
**option** [lZmCRX03]. **orbits** [CS93]. **Order**  
 [But97, FW15, AL97, BS05, BOP<sup>+</sup>15,  
 BGH15, BA15, CDP03, CLM03, CWX12,  
 CEHK18, FS98, GW17, GLS15, HBMY14,  
 HKR04, HS03, HLN12, JMO00, JN18,  
 KCW17, KL16, Li05a, LD16, LL12a, MRS03,  
 Mat09, MS04, Möß10, NS04, Noe95, NZ04,  
 OBS15, PM17, PSNP11, RHZ17, SI15, SS15,  
 TBD94, TGA96, WOBL17, Wie97, XL10,

Xu14, ZP06, ZPR03, ZT15, ZD16, ZZ09].  
**Order-preserving** [FW15]. **ordering**  
 [CM99, Dou94]. **ordinary** [yGqW09].  
**oriented** [BWX97]. **originated**  
 [MH17, Zhe06]. **Orthogonal**  
 [Bes03, CMP07a, FM04, LH13, CI13, Dam07,  
 DHO16, JS99, Jia00, MPS96, MPS97, Rei93,  
 Sal98, SI15, SX07, TSY10, Wat94].  
**Orthogonality** [MPS96, MPS97].  
**orthogonalization** [CK07]. **orthogonally**  
 [Wat94]. **orthomaps** [ZB99]. **Orthonormal**  
 [QWXZ10, CaL06, Han98, Han10, HHS04,  
 Lai06]. **oscillatory**  
 [DLUS17, NUWZ17, XHC15]. **Oseen**  
 [LLC16]. **outflow** [Kno09]. **overlapping**  
 [HS03, LHY08, PTC12, PSNP11].

**p** [WY17]. **package** [BD93]. **packet** [CR08].  
**Padé** [BC99, BCZ05, CDTV99, Dar03].  
**Padé-type** [Dar03]. **pages** [Ano16]. **pair**  
 [ZT15]. **Pairs** [CG10, Chr15, NSS04,  
 CKK16, GLS15, Lem09]. **pairwise** [GYZ17].  
**panel** [HH15]. **panel-based** [HH15].  
**parabolic** [AV15, BA15, FLM96, GLO10,  
 KL17, Le 05, Li05a, LB93, gTpM02, VK96].  
**Parallel**  
 [AB97, AH96, BP93, BF94, BS97b, BS97a,  
 Bur97, BS00, Chi03, Jan98, vdHdS97, Ben97,  
 But97, CSWP99, EJ97, Moo17, WMY13,  
 WLPV15, XZ01, ZSHZ15, dH94, vdH93].  
**Parameter** [HO17, GPT17, HO15, JJLR14,  
 Kno09, LLY12, Nes16, OP11, RH12, Rip99,  
 RZ98, Sch11b, She13, Wie15, WK93].  
**Parameter-uniform** [HO17, OP11].  
**Parameterization** [Jia00, CLM02, CL18].  
**Parameterizations** [Jia03, HL16b].  
**parameterized** [BOP<sup>+</sup>15, CM99, SS15].  
**parameters** [EHV17, FYL08]. **Parametric**  
 [BGH15, KKV15, CC94, FE15, GPS10,  
 KK99, SFDE15]. **parametrized** [MN15].  
**Parseval** [CK07]. **part** [WZL17]. **partial**  
 [Atr12, CJX17, CN96, yGS08, HS08, PM17,  
 SW96, She13]. **particle** [KH05, XB05].  
**partition** [CM12, HL05, NSS04, ZSHZ15].

**partitioning** [Wie15]. **partitions** [MS07, SS04]. **Parzen** [ZZ09]. **pass** [Jia09b].  
**Past** [Ano03c, Ano04d, Ano04e, Ano04f, Ano05a, Ano05b]. **Patches** [Kra02, BLP02, GPS10]. **PCA** [WW12].  
**PDE** [AV15, BHT11, CW09, DAP13, IUUV17, Sch15]. **PDE-constrained** [BHT11, IUUV17].  
**PDEs** [Le 05, MN15, VK96]. **penalized** [BL09]. **penalty** [GS13, HY14]. **pencils** [CG06]. **perceptrons** [WFL02]. **perfect** [EGL13]. **perfectly** [LZZ09]. **period** [SC08].  
**Periodic** [CDS02, Zha05, AB02, CP03, CG10, DS01, FW15, GY00, LL13, LP14, MP00, She13, Tor16]. **periodization** [Søn07]. **permutation** [NSW16].  
**permutation-invariant** [NSW16]. **persistence** [PZ16]. **perturbation** [Che06].  
**perturbations** [She08]. **Perturbed** [Ram95, RSZ11, AB02, BBR02, CK11, GLO10, HO17, Kun01, LRS12, MR15, MR96, MXO13, OS09, OP11, ZC14]. **Petrov** [AS05, CMX97, CMX02, DS01, Hua06, WY17].  
**phase** [BH15, Han10, KL16]. **phases** [QWXZ10]. **phenomenon** [BC99, RY13].  
**photoacoustic** [DGK15]. **photographs** [ZB99]. **photonic** [KK02]. **physical** [TS05].  
**pi** [Len94, Len96]. **Piecewise** [Gu17, Wen95, ABC14, BGM93, Cas07, HL05, JSSE97, KPY09, LY07, LM06, PR99].  
**piecewise-polynomial** [ABC14]. **pipeline** [CM99]. **pipeline-efficient** [CM99]. **planar** [BLP02, BGN17, DOZ94, LLS03, Zwi94].  
**plane** [GMM09, HBMY14, HY18, Li94, PC17].  
**plasma** [CG17]. **plastically** [SEE96]. **plastically-formed** [SEE96]. **plate** [AL97, FP99, Joh13, Ye00, Yoo01, ZB99].  
**plus** [SS08]. **POD** [AV15, RH15]. **Poincaré** [KP98]. **point** [CZS16, DSW05, DLUS17, Dou94, GMS12, yGmW98, KS17, Leo13, LSXZ15, MR96, SC08]. **points** [BLP02, Gom95, GH08, IP15, Pan95, Pra98, SW04, Sto96, Ven94, WHS18]. **Pointwise** [Dam07, NV10]. **poised** [BH17]. **Poisson** [ALZ02, AK15, BL09, CBK01, Li05b, Li08a, ZSB01b, ZhXpZ16]. **poles** [VK96].  
**polygonal** [GH06]. **polygons** [FHK06, FK10, Jon17, KB15, LD07, RGB13].  
**polyharmonic** [BRS13]. **polyhedrons** [HR17]. **Polynomial** [GS00, JZ04, MNPW00, Xu00, Xu04b, zCFX07, ABC14, Bar03, BGM93, BNR00, BR13, CT05, Cho95, DS00, Der04, FGG<sup>+</sup>17, Fra99, HW12, JKLY13, Le 00, Lev99, MV99, Maz99, MWW13, MS00, Mon09, Nie07, Pan95, PS07, PR99, Sau95, Sid17, Sor18, Wen95, WS01, ZJ06, dB00]. **polynomially** [LP10]. **polynomials** [Bün11, CMP07a, CI13, CCS16, DZ04, DHO16, DKB99, DGS18, DS13, Flo96b, GMRS97, IP15, Jüt98, LKW17, MPS96, MPS97, MS04, MN00, Pot04, Rau05, Rei93, Sal98, SX07, SS08, WSM13, Xu04a, dB06].  
**polytopes** [CCH<sup>+</sup>15, War96]. **porous** [DGMM16]. **posed** [BL09, BE00, LLY12, XY12]. **Positive** [LS05, Bai99, De 06, GP95, GS10, Luo99, Pin04, SM99, WMY13, WMB13, Wen95, Wu95]. **positivity** [CEHK18, LM06, Maz01].  
**positivity-preserving** [CEHK18]. **post** [LZY98]. **post-processing** [LZY98]. **postbuckling** [Mur08]. **postconditioning** [FJ99]. **Posteriori** [Ano01b, Bra01, CBK01, CK11, DY01, KY01, KL17, MSZ06, MRH15, MW01, ZC14, Kun01, AK01, ARPR01, DLZ16, GN13, HR01, KNV01, LY01, LLY12, Pet02, PS05, Yan01, Yan03, Zha01, ZSB01b].  
**potential** [Li09, aKT17]. **potentials** [IMS99, Li10b]. **Powell** [AS02, LLS96, LL98, MS07, Rem12, SW08].  
**power** [ASS10, LS98, NSW07, RS99]. **power-growth** [RS99]. **Practical** [WMB13, CN96, WZL17]. **precise** [Jon17].  
**precision** [GPS10, NP18]. **Preconditioned** [LNW02, BCM99, MS98, RSZ11].  
**preconditioner** [Bre95, FH18, HS03, LK05, PTC12, PL05, Sto17, Zhu15].  
**preconditioners**

[Bai99, MS99, NBL11, SW98, TSZ98].

**Preconditioning**

[Wan12, vdH93, BHT11, BPK96, CHY11, JS95, KP95, KvL95, Kun95, MV01, ZT14].

**predictive** [AV15]. **predictor**

[CSWP99, ZD14]. **Preface**

[AS03, Ano00b, Ano02d, Ano04g, Ano05c, Ano06, BP11, CHY10, Dah95, GOZ03, NW04, Sch04, SX09, Twi96, XY12, BOP<sup>+</sup>15].

**prescribed** [CL02, FMPS13, MRS18].

**presence** [AL13]. **Preservation**

[CK03b, CLMR10, CMP07b, FP98].

**preserve** [MXZ08]. **Preserving**

[CP04, CP93, Car95, CJ07, CEHK18, CCS16, CGM01, CM03, CP07b, Der04, FBCR13, FW15, GO05, HR17, KNP98, KvD01, SS14].

**pressure** [BR15]. **pricing** [ZmCRX03].

**primal** [DGMM16, KPY09]. **primal-dual**

[KPY09]. **primal-mixed** [DGMM16].

**Prime** [LMO14, Kot08]. **prime-counting**

[Kot08]. **principal** [IB17, SLN14]. **principle**

[IKS10]. **principles**

[Kos15, LSL14, MSST14, RT14]. **problem**

[AK01, ACH10, AHC11, BGMS07, BMSR<sup>+</sup>16, BE00, CK11, sCLC13, CH15,

CL07, CMX07, CZS16, CL16, CG17, FLM96, FF95, FRT09, GMM09, yGmW98, GN13,

HO17, HT11, HXC10, HFH15, KL00, KS17, KCW17, LST11, Li05b, LLZ10, fLL05,

MR15, MC08, Mur08, OP11, Pei05, QC12, TW98, Wan08, WZ10, XY15, Yan03, ZB12,

ZPY15, ZC14, ZW12, vdH93]. **problems**

[ARPR01, AC05, ABI15, BL09, BKN11, BHT11, Bes03, BDMR10, BA15, BK96,

BS97a, BS00, But97, CZZ17, Cas07, sCLC13, Che06, CWX12, CHY10, CP15, CHS17,

CHY11, CCE<sup>+</sup>12, DDP14, DRS08, DLZ16, EHS02, FK98, FKS05, GM17, GM14, Gil17,

Gna07, GO95, GH06, yGjW10, Hak00, HKRS14, HH16, HH15, Hem95, Hem96,

HR01, HO15, HJH12, HX17, JN18, KORS17, KXZ04, KPY09, KF03, KNV01, Lee03, Li05a,

LSXZ15, LRS12, LMT01, LY01, MSZ06, Mar94, MO16, MR96, Mat09, MNC16, OS09,

Ock96, PP97, PSNP11, RSZ11, SXZ06, Sto96, Sun14, TZL16, TDG16, Tom96,

TBD94, VW05, WL12, WHS18, Wat94, XZ01, XY12, Yan01, Zha14, ZL17, ZL16].

**procedure** [BRZ94, PSNP11, Sch11b].

**process** [ALZ02, DAP13]. **processes**

[CDP09, SU12]. **processing** [Jia11, LSXZ15, LZY98, PZ16, RT14, SX09, Sun14].

**processor** [AH96]. **Procrustes** [Wat94].

**product** [Bün11, CP15, Flo94, FP98, GO95, KK99, LS05, Pin04]. **products**

[FMR00, GY00]. **Professor** [Sil99].

**projection** [APV14, CLMR15, HT12, KH05, LH13, Mat09]. **projectors** [She08]. **prolate**

[LST11]. **Proof** [FP99]. **proper** [SI15].

**properties**

[AB11, BS06, CR08, CHL17, CGR11, CL02, GGL07, JL97, Mai10, MPS96, MPS97,

Mha93, MNW99, PŠWX03, Pla12, RAB<sup>+</sup>09]. **property** [BH17, CGP95, CM12, JKLY13,

MP96, Pré94, SL12]. **proportional** [XH13].

**proportionality** [CHMR97]. **Prössdorf**

[Sil99]. **Proximity** [MSXZ13, LSXZ15].

**Pseudo** [Awa15, Mai06].

**Pseudo-dimension** [Mai06].

**Pseudoaffinity** [Maz07].

**pseudodifferential**

[DPS93, DS01, FQ10, GP14, PS98].

**pseudoframes** [LO08]. **pseudospectral**

[yGSIX03, lWyG06]. **Publisher** [Ano01c].

**Puiseux** [WZL17]. **Pythagorean**

[AF96, FS94, FaKS02, FGS16, JKK<sup>+</sup>12, KJ09, KKV15, PFMS05, Pot95, RSA14].

**Pythagorean-hodograph**

[AF96, FS94, FaKS02, FGS16, JKK<sup>+</sup>12, PFMS05, Pot95, RSA14].

**QCMC** [HL16b]. **QMR** [Cul96].

**QMR/BiCG** [Cul96]. **QTT** [KORS17].

**QTT-finite-element** [KORS17].

**quadrangulations** [NSZ04]. **Quadratic**

[CLLS06, MP04, MS07, Noa02, CLMR10, Kva14]. **Quadratic-Cycloidal** [MP04].

**quadratically** [MN15]. **Quadrature**

[Nai12, BF94, FXZ96, FM14, GVSLN96, HZHL12, MC10, SX07, XHC15, aKT17]. **quadratures** [LL12a]. **quadrilateral** [AAQ15, FF95, Jia11, LY08, LPSSP00, LL10, LL12b, MC08]. **quadtree** [KHM16]. **qualocation** [JSSE97]. **Quantile** [SHTS14]. **quantiles** [Xia13]. **quantization** [LPY10, Wan08]. **quartic** [MH17]. **Quasi** [KKL03, KKLY10, NV10, CP99, CSS98, DL98, DGMM16, Dün09, HL16b, LM04, MS07, RH12, Rem12, Spe17, WL05]. **quasi-affine** [CSS98]. **Quasi-biorthogonal** [KKL03]. **quasi-conformal** [HL16b]. **quasi-interpolant** [Dün09]. **quasi-interpolants** [MS07, Rem12, Spe17]. **quasi-interpolating** [DL98]. **quasi-interpolation** [LM04, WL05]. **Quasi-interpolatory** [KKLY10]. **quasi-Newtonian** [DGMM16]. **quasi-optimal** [RH12]. **quasi-wavelet** [CP99]. **quasigeostrophic** [SI15]. **quasilinear** [LB93]. **quasiuniform** [GH06]. **Quaternion** [Far10]. **quintic** [Far10, FGS16, SS04]. **quintics** [KJ09]. **quotient** [MS04].

**Rachford** [HH16]. **Radau** [BS97b, BS97a, BS00]. **Radial** [BRSV15, LR07, Li10a, Li10b, BCM99, BGH15, CL16, CSW96, DSW05, Fas99a, Fas99b, FF05, FS98, FW15, GW17, Hub12, LST11, LW14, LM14, LLY06, Li05a, Li09, LK05, Low05, Mai05, RS99, Rip99, Sch95, SS08, SRFH12, WH07, Wen95, Wu95, Xu98, dB06]. **radial-basis** [RS99]. **Radiation** [MKS02]. **radiosity** [AC00, Han05]. **radius** [DY10, Möß10]. **Radon** [CG15]. **raising** [FL00]. **Ramlau** [HR13]. **random** [CP15]. **randomized** [ZZ09]. **Rank** [NSW16, LMWX13, Sid17]. **Rank-** [NSW16]. **Rate** [Li08b, Sun08]. **rates** [FJ99, LR07]. **Rational** [TSY10, CLM02, DP13, DOZ94, EGL13, Far10, FGS13, FGG<sup>+</sup>17, GMB97, JJK13, JW95, Pot95, VK96, gYyG12].

**Raviart** [CL07]. **ray** [GL13]. **RBF** [Han12, LSW17, Sch11b]. **RBF-interpolation** [Sch11b]. **RBFs** [Fus08a, Fus08b, NSW07]. **reaction** [CK11, GLO10, KC16, Kun01, MR15, MXO13, ZC14]. **real** [ANSZ17, BMB14, Dam07, FRT09, GP13, IB17, NUWZ17, Pan95, Pin04, VK96]. **real-life** [FRT09]. **real-time** [ANSZ17]. **real-valued** [IB17]. **Reconstruction** [DMT03, Var96, ARAK09, Atr12, BDMR10, CCH<sup>+</sup>15, DM15, EGL13, FPR<sup>+</sup>12, GP14, KL15, SW06, Sun10]. **recoverable** [KL15]. **Recovering** [WL12, GN08]. **Recovery** [FZ12, CCSS09, CS06, DY01, Dün09, Dün11, GL13, XWL13, Yan01, Yan03, Zha01, Dün12]. **rectangles** [CDP03]. **Rectangular** [Awa13, DM99, Rem12, ZWDD16]. **recurrence** [EHV17, MXZ08, RL07]. **recursion** [Wal95]. **recursions** [Wal95]. **Recursive** [Cop98, TZ03]. **Reduced** [ASU17, GLS15, MRH15, PGB15, AZW15, CEL15, IUUV17, RH15, SI15, SL15, Sid17, Wie15]. **reduced-basis** [IUUV17]. **reduced-order** [SI15]. **Reducing** [Ant18]. **reduction** [AZW15, BOP<sup>+</sup>15, BGH15, FE15, HO15, KCW17, PS07, SS15, Tom96]. **redundancy** [BH15]. **Refinable** [Gro13, HM03, CX04, CTZ02, De 06, GGL07, JS99, KKLY10, LLS95, Li04, MS04, Pit16, Sau06]. **refined** [GJS14, KP95, KP98]. **Refinement** [DX10, ARPR01, DM93, DY10, Han06, JL97, Li04]. **reflection** [Wan12]. **reflectivity** [DMT03]. **regard** [TTY11]. **region** [DLK12]. **regions** [CMP07b, JW95, KvL95, Pet96, San15, TB16]. **register** [CM99]. **register-** [CM99]. **regression** [SHTS14, SW10]. **regular** [Led15]. **Regularity** [MS97, MXO13]. **Regularization** [EPP00, Zoz15b, Zoz15a, BJX09, DSS09, FQ10, GS13, HT11, MZ13, RH12, SHTS14, ZW12]. **Regularized** [SW10, DGK15, GYZ17, Hu07, WZ10]. **Regularizers** [MMP13]. **regularizing**

[Pla12]. **Reissner** [AL97, Ye00]. **related** [DGS18, Sid17, TDG16]. **Relation** [PZ16]. **relations** [EHV17, RL07]. **relaxation** [HJJV97, vdHv97]. **relaxations** [Las16]. **Reliable** [CCE<sup>+</sup>12]. **Remarks** [HJJV97, DT96, Dou94]. **removal** [RY13, SEE96]. **representation** [BDD06, CWLH95, CLM02, Lev99, MSST14, MNW04, Nie98]. **Representations** [Ano02d, CP93, Dar03, Dün09, GN08, GL17, Hub12, TZ05]. **reprint** [CN96]. **Reproducing** [FY13, HT11, JKLY13, RY16, vdMNS03]. **Reproduction** [JZ04]. **rer** [Sil99]. **residual** [APV14, MW01]. **residual-based** [MW01]. **resolution** [HFH<sup>+</sup>07]. **respect** [CMP07a, Rei93]. **response** [TZL16]. **restarted** [dH94]. **restoration** [Del17, FRT09]. **Restricted** [CMP03, SL12]. **Restriction** [AD08]. **result** [JS95]. **results** [GVSLN96, Kun09, MN00, NSW98]. **retarded** [Hau97]. **RETRACTED** [Zoz15b]. **retrieval** [BH15, Wan12]. **reversible** [CS93]. **revisited** [BRZ94]. **revolution** [CMR07]. **Reynolds** [TL18]. **Riccati** [BF11, KA97]. **Richardson** [JLZ08]. **ridge** [Mai10, WFL02]. **Riemann** [Bra01, EGST13, JN18, KS17]. **Riemannian** [GH16, Noa06, Noa14, WYW11, YZ08]. **Riesz** [Grö03, HHS04, Leo13]. **right** [FR10]. **right-hand** [FR10]. **ripplets** [Pit16]. **risk** [MNPR06]. **RKDG** [ZQ13, ZG16]. **RKN** [Ram95]. **RMS** [Nes16]. **Robin** [PSNP11, SJL15]. **Robin-type** [PSNP11]. **Robust** [Kun01, ZC14]. **robustness** [ZSB01b, ZYY16]. **role** [Joh13, Ock96]. **Rosenbrock** [BBB<sup>+</sup>16]. **rotating** [SF14]. **rotation** [FaKS02, Far10, FGS13, FGG<sup>+</sup>17]. **rotation-invariant** [FaKS02]. **rotation-minimizing** [Far10, FGS13, FGG<sup>+</sup>17]. **rounding** [Bar03]. **Roundoff** [TZ03]. **rule** [SC08]. **Ruled** [SR02]. **rules** [Han10, NSW16, RH12, RJ00, WYW11, WZL17]. **Runge** [BP93, BS97b, BS97a, BS00, CHMR97, CLM03, CMR07, CLMR10, CLMR15, CSWP99, Hal95, JMO00, Liu99, Mui99, vdHdS97, vdHS00].

**Sabin** [AS02, LLS96, LL98, MS07, Rem12, SW08]. **Sacker** [LMV11]. **safe** [HKR04]. **salesman** [Wan08]. **Salzman** [Han05]. **same** [CGR11]. **sampler** [FPR<sup>+</sup>12]. **samples** [SW10]. **Sampling** [RZ10, WSM13, vdMNS03, ARAK09, Atr12, Dün09, Dün11, Dün12, GZ13, JJK13, Søn07, SZ09, Sun10, Sun14, Tan17, XP10, ZZ09]. **sampling-reconstruction** [ARAK09]. **satellite** [FM04]. **satisfying** [TSY10]. **SBFs** [NSW07]. **scalable** [WLPV15]. **scalar** [BR07]. **scale** [BF11, BRSV15, CS94, Plo95, RH15, SI15]. **Scaled** [BLS02]. **scales** [MXO13]. **scaling** [CP03, Han98]. **Scattered** [DZ04, FHN94, Grä12, IP15, Kun09, LW04, LNW02, MNW99, NSW98, NG99, Pot04, WL05, WSM13, Yoo01]. **scattered-data** [NSW98]. **scattering** [Cai02, Gil17, HR02, IKS10, LN14, MKS02, QC12, VW05, WL12, ZGGW12]. **scheme** [BNP14, BS05, CLC16, CJ07, CL07, CGRS15, CT17b, FGS13, HFH<sup>+</sup>07, HH15, LY08, MB96, Wie97]. **schemes** [ADL11, Ble07, CMR07, CD15, CMX97, CGR11, CGR13, DD94, DLUS17, DS13, Flo96a, GMS12, JKLY13, Jia95, JN18, LLY06, Lev99, LP10, LQ14, LD16, MS12, Mui99, MH17, Nie07, Noe95, SW96, TQ17, TDG16, Zhe06]. **Schmidt** [CK07, Chr15]. **Schoenberg** [SS96]. **Scholes** [PGB15]. **Schrödinger** [BK16, CLC16]. **Schur** [Dai16, Peñ11]. **Schwarz** [Bre95, BR07, PTC12]. **Schwinger** [Che02]. **SDFEM** [ZL17]. **Second** [BA15, CHS17, HLN12, TW98, TGA96, Bra01, CMX97, CP99, HS16, Mar95, PSNP11, RHZ17, XL10, Xu14, ZP06]. **Second-kind** [TW98]. **Second-order**

[BA15, HLN12, TGA96]. **sections** [Flo96a]. **sectorial** [FM04]. **segment** [MNW96]. **segmentation** [DLK12, KPY09, RWT13]. **segments** [Pet96]. **Seidel** [Dou94]. **seismic** [Wan12]. **selecting** [Rip99, Sch11b]. **selection** [CHMR97]. **self** [FMPS13, SM00]. **self-adjoint** [FMPS13]. **self-associated** [SM00]. **selfadjoint** [JM00]. **Sell** [LMV11]. **Semi** [Buh06, PIZ01, BS05, CLC16, JRS15, LC13, PP97]. **semi-cardinal** [BS05]. **semi-discrete** [LC13]. **semi-discretization** [JRS15]. **Semi-explicit** [PIZ01]. **semi-implicit** [CLC16]. **Semi-infinite** [Buh06]. **semi-linear** [PP97]. **semidefinite** [Las16]. **semidiscrete** [CW16]. **semidiscretized** [VK96]. **semilinear** [AV15, Cas07, CK11, FLM96, KL17]. **seminorms** [AM14, LL99]. **sensing** [SL12]. **Sensitivity** [KA97]. **separable** [CS03]. **separating** [IZmCRX03]. **separation** [Leo13]. **sequences** [BD10, BR07, GGL07, Grö03, LY07, LYY13, MP96, SZ09]. **series** [CDTV99, LT13, Pré94, QW11]. **set** [BLP02, FGG<sup>+</sup>17, GLT93, KPY09, Pan95, XKY15]. **set-valued** [XKY15]. **sets** [BH17, BS06, CG15, Cho95, FMR00, FH05, Leo13, LL13, LL11, WSHD07, Wie15]. **several** [GS00, MS12, Xu00]. **Shah** [KPY09]. **shallow** [CT17b, IL16, vdHS00]. **Sham** [CGH<sup>+</sup>13]. **Shape** [CP93, CMP07b, CM03, CP04, CP07b, Der04, GO05, CH15, CGM01, HSV09, KvD01]. **Shape-Preserving** [CP04, CM03, GO05]. **shaped** [Pit16]. **shapes** [Alb15]. **shared** [Jan98]. **shared-memory** [Jan98]. **shearlet** [GL13]. **shells** [YDF97]. **shift** [CHL17, HHS04, Sun10]. **shift-invariant** [CHL17, HHS04, Sun10]. **shifted** [Yoo01]. **Shishkin** [Mat09, ZL17]. **shooting** [CS93]. **sides** [FR10]. **Siegfried** [Sil99]. **sifting** [DAP13]. **Sigma** [Wan08, LPY10, Len94, Len96]. **sigmoidal** [Sto96]. **Signal** [MSST14, PZ16, RT14, Sun14]. **signals** [Ren09, Var96, Wan12]. **signatures** [CC94]. **simple** [CG04, CKBP11, MST05, MY17]. **simplices** [Wie97]. **simplified** [HY14, RHZ17]. **simply** [CWLH95, CL18]. **simply-connected** [CWLH95, CL18]. **Simulation** [Zhu15, BGMS07, FE15, XKY15]. **simulations** [CEL15, ZG16]. **Simultaneous** [Füh08, LT06, PCM<sup>+</sup>96]. **Single** [gTpM02, EJ97]. **single-eigenvalue** [EJ97]. **singly** [Tor16]. **singular** [ByLl01, Bes03, Boc04, Che06, CKP13, FR10, HX17, HS16, Pla12, Smo07]. **singularities** [HZHL12, MV99, MP00]. **Singularity** [KNP98, IZmCRX03]. **singularity-separating** [IZmCRX03]. **singularly** [CK11, GLO10, HO17, Kun01, LRS12, MR15, MR96, MXO13, OS09, OP11, ZC14]. **six** [CMP07b]. **six-dimensional** [CMP07b]. **size** [BS00]. **slits** [San15]. **small** [BGH15, CKK12, NSS04]. **SMMP** [BD93]. **Smolyak** [Pet00]. **Smooth** [AS02, BK96, Car95, HBMY14, JSSE97, LP14, MM00, RZ10]. **smoothing** [BB07, FJ99, Fas99b, MST05]. **Smoothness** [Osw04, Pra98, CSW14, FBCR13, Li04, MT98, SRFH12, WYW11]. **snapshot** [ASU17]. **Sobolev** [DG16, FY13, Han06, KL07, LYY13, War13]. **Sobolev-type** [KL07]. **Software** [WLPV15, CKP13, Mac94]. **solidification** [PCM<sup>+</sup>96]. **solidification/melting** [PCM<sup>+</sup>96]. **Solution** [FH05, LST11, ADG17, BPW95, BF11, BA15, Bra01, Cum96, DPS93, DMMS11, DLP98, EHS02, EJ97, GM14, KS17, KC16, Mar94, Pen98, Wat94, ZVW95, ZYY16]. **Solutions** [Han06, AC05, Ant18, CLZW13, CN96, ER99, FK98, HBM03, JLZ08, JN18, KK05, Kim06, KF03, Li05b, Li08a, Li08b, Li09, Mur08, RL07, Ryn00, She13, WZ10, XH13, Yao16, ZSB01a, ZV08]. **Solvability** [HS08]. **Solvable** [Wat96]. **solve** [ARPR01].

**solver** [Ben97, Cai02, YZ13]. **solvers** [AB97, BBB<sup>+</sup>16, KP95, Sch15, SW96, vdHdS97]. **Solving** [Fas99b, HS13, JM00, LM14, PC17, Sch09, AC00, sCLC13, Cul96, Li05b, LSXZ15, LLY12, MS00, TQ17, WHS18, ZT14, ZhXpZ16]. **Some** [CHM18, DT96, Dou94, GVSLN96, KY01, MN00, CLM96a, CKP13, Dai16, DS01, HX17, Le 00, LT98, LZZ09, LPSSP00, Peñ11, RT14, SW98]. **space** [BLP02, BKK17, CGM01, FS94, Far10, Fus08a, Fus08b, GG16, HT11, KCW17, KJ09, NV10, Pin04, She13, TZ07, Yao16, ZD16]. **spaced** [LP14]. **Spaces** [GH03, AS08, BGM93, CLLS06, CMP07b, CS06, CS03, CG10, DST04, DS00, FY13, GHdN12, GJS14, Han06, HHS04, Jia95, LYY13, LT98, Lut04, Maz99, NSW16, RY16, SS16, Spe17, Sun08, Sun10, Tem01, Tem07, WYW11, ZWDD16, dB07, vdMNS03]. **spanned** [dB07]. **Sparse** [BD93, CCH<sup>+</sup>11, CP15, Fli18, Hem95, WW12, BNR00, BF11, KL15, MR15, NBL11, PGB15, Pla00, SU12, SJJL15, Hem96]. **Sparse-grid** [Hem95, Hem96]. **sparsity** [BDMR10, FRT09, GN08, MMP13]. **Spatial** [CP04, FaKS02, Leo02, PFMS05]. **special** [BOP<sup>+</sup>15, CHY10, Tom96, XY12]. **Spectral** [GMRS97, yGSIX03, JL97, Smo07, ACH10, AHC11, BK16, CJX17, CP14, CP15, CGW13, DY10, Gu17, yGW07, yGjW10, HL06, HX17, HY18, HS16, LY07, LMV11, LWL17, LL07b, MFB<sup>+</sup>11, Möß10, Mur08, IXyG02, gYyG12, ZP06, Zhu15]. **spectrum** [FMPS13]. **sphere** [BC94, DST04, DG13, FM14, FM04, HKR04, HR17, KN14, KNQ16, LW14, LM14, Leo13, Leo02, Li08a, MNW99, MNPW00, MNW04, NW04, Pot04, SW04, SS08, SM99, WS01, Xu04a, Xu04b, zCFX07]. **Spheres** [Noa02, Fas99a, Kun09, Le 05, Luo99, NSW98]. **Spherical** [FW96, BMK15, DG16, FM14, HL08, Hes09, HW12, IP15, Le 05, NS04, PTC12]. **spheroid** [CP15, LST11]. **spin** [CLM02]. **Spline** [Jia09a, JF02, AS08, BS05, ČF11, CHRX06, DS00, DS01, DX10, FGS16, FP99, Flo94, GJS14, KK99, KvD01, LW04, Leo02, MS07, MXZ08, MXY13, MH17, Rem12, SS96, Sor18, Spe17, SZ09, Wal95, ZWDD16]. **splines** [AF96, AHHR16, ANSZ17, BR13, BL99, CM12, CGR13, CKM99, DL98, DZ04, DOZ94, GO05, JKLY13, JL06, Joh13, KLNS95, KL04, KL07, KP04, Kva14, LL98, LS98, LLS95, Leo02, LM06, MR96, MSS02, Maz01, MNW96, NS04, NSS04, NZ04, NSZ04, PTC12, Plo95, PW94, Sch04, SS04, SS14, Str95, War13, Yoo01, ZB99, Zhe06, ZA10]. **split** [HH15]. **splits** [AS02]. **Splitting** [HZHL12, XWL13, HH16, nCV13, ZT14, ZPY15]. **splittings** [GO95, WMB13]. **square** [SW10]. **Squares** [JF02, CHY11, FHN94, LK05, Sto96, Tom96, WK93]. **SSOR** [Bai99]. **stabilisation** [Mat09]. **Stability** [CK03b, DS10, NSW98, ZV08, ARAK09, AV15, But97, DHK98, DP13, ER99, Fus08a, Fus08b, JS95, Kei95, Kun09, Low05, MN15, MB96, MNPR06, PST08, XB05, PS98]. **stabilization** [HT12, JJLR14, NV10, TL18, TZ07, dFGAJN18]. **Stabilized** [Ye00, BQRB13, LC09, LC13, MU14, SI15, XY15, ZT15]. **Stable** [BH15, LP04, XL10, GJS14, She13, TGA96, Ye04, dFGAJN18]. **Stair** [lWyG06]. **standard** [BDD06]. **star** [GMB97]. **starting** [CLM03]. **state** [Ang00, DMMS11, ER99, HO15]. **Stationary** [LLY06, Bre95, CGR11, JKLY13, LC09, MS12]. **statistical** [BEG17]. **statistics** [HSV09]. **steady** [Ang00, DMMS11, ER99]. **steady-state** [Ang00, DMMS11]. **steel** [GN13]. **Stefan** [HXC10]. **Steklov** [KP98, LLZ10]. **step** [BS00, CLM03, HFH15, LSXZ15]. **step-size** [BS00]. **stepping** [KC16, VK96, ZPY15]. **Stepsize** [CHMR97, Hal95, Wil98]. **stiff** [Ben97, BS97a, BS00, But97, EJ97]. **stochastic** [CCG10, CJX17, MM00, SU12, WSM13].

**Stokes** [Ang00, APV14, Bre95, BR15, CHM18, CCG10, CLL08, CL16, CT17a, CGS93, FF95, HL06, JJLR14, JK08, KL00, LC09, LG13, LC13, fLL05, LY08, MRH15, MY17, PCM<sup>+</sup>96, WY16, XY15, ZVW95, ZT15, dFGAJN18]. **Stokes/Darcy** [CHM18]. **Straight** [San15, DD94]. **Strang** [GW17, WL05]. **strategies** [MN15]. **strategy** [ARPR01, CGR13, GPT17, Hal95, LLY12]. **streamline** [KY01]. **stress** [GG16, Lee16]. **Strictly** [Luo99, Pin04, SM99, GP95]. **strip** [lXyG02]. **strong** [DGMM16]. **Strongly** [GJS14, OS09]. **structural** [ARPR01, CCN<sup>+</sup>16]. **structural-acoustic** [ARPR01]. **structure** [AB02, Wat96]. **Structured** [BKN11, GN08, Kim06, MMP13, ZPR03]. **structures** [JN18, KC16]. **Studies** [LZZ09]. **study** [EHV17]. **Sturm** [GM17]. **Subdivision** [CD15, Gon93, JZ04, Jia95, LP10, ADL11, CJ07, CGR11, CGR13, CCS16, CGRS15, DM93, De 06, DLUS17, DS13, FBCR13, GO05, GMS12, JKLY13, LLY06, Lev99, MS12, Moo17, MH17, Nie07, Osw04, PK94, Pra98, PR99, RS01, WYW11, Zhe06, ZA10]. **subdomain** [CHS17]. **subgradient** [GH16]. **subsonic** [KvL95]. **subspace** [BPK96, GO95, XWL13, ZVW95]. **subspaces** [Atr12, HLT11, LO08, LL11, SZ09]. **Sufficient** [FS07, MNPR06]. **sum** [CMP07a, Han10, JGW15, TZ05, WFL02]. **sum-of-exponentials** [JGW15]. **summaries** [Joh13]. **summation** [Pré94]. **sums** [Tor16]. **Sumudu** [PM17]. **sup** [dFGAJN18]. **Super** [LL13, LT12]. **Supercloseness** [ZL17]. **superconductors** [HX02]. **Superconvergence** [CZZ17, HSY16, LY08, Zha14, Gom95, LLZ10, LL12b, MNC16, ZSB01a]. **superposition** [Nee96]. **SUPG** [Kno09]. **Support** [EPP00, CX06, CKK12, NSS04].

**supported** [CL16, CKK12, CHSS03, Hub12, JJK13, JS99, Lai06, LLS95, Len96, Wen95, Wu95]. **Supports** [CTZ02, KL15]. **suppression** [LO08]. **Surface** [Kra02, BX94, Ble07, FM14, FHN94, GN13, HFH<sup>+</sup>07, Jia11, PCM<sup>+</sup>96, ZL16]. **surface/surface** [BX94]. **Surfaces** [JF02, SR02, CW16, CC94, CLM02, CL18, DP13, Flo94, GU02, HFH<sup>+</sup>07, KK99, KP04, Leo02, LPSSP00, MT98, PGM09, Pra98, PR99, RS01]. **survey** [CBK01, RT14]. **SVM** [ZJ06]. **sweeping** [Sto17]. **Sylvester** [ZT14]. **symbol** [GP14, Plo95]. **symbols** [Nie07]. **Symmetric** [Han98, Han10, Jia03, Bai99, JKLY13, JS95, Lee16, WYW11]. **Symmetric/Antisymmetric** [Jia03]. **symmetries** [GH99]. **symmetry** [AD08, AG98, Awa13, Jia11]. **symplectic** [DDP14, Ram95]. **synthesis** [ZYY16]. **System** [Tan17, AK15, BR15, GLO10, Gu17, KA97, MRH15, MXO13, MS00, OS09, SC08, vdHdS97]. **Systems** [CMP03, AZW15, Bai99, BOP<sup>+</sup>15, Bes03, BKK17, CS93, CEHK18, CTZ02, CR08, CKK16, CHL17, Dad17, DLP98, FE15, Hol01, KKLY10, LZZ09, Liu99, Mar94, MV01, MS98, SXYY06, SW04, Smo07, Tor16, WMY13, WMB13, WOBL17, dH94, dCB07]. **systolic** [AH96]. **Szego** [CMP07a]. **T** [ZWDD16]. **T-meshes** [ZWDD16]. **Table** [Mac94]. **Table-based** [Mac94]. **tangentially** [MU14]. **task** [LMWX13]. **Taylor** [Del17, fLL05]. **Tchebycheffian** [PW94]. **technique** [BHT11, CS93, FP99, Gil17, KH05, Ren09, SFDE15]. **techniques** [Sor18]. **tempered** [LD16]. **tension** [CKM99, MR96, ZL16]. **Tensioned** [LM04]. **Tensor** [FP98, GO95, CP15, Flo94, KK99]. **Tensor-product** [FP98, Flo94, KK99]. **tenth** [TBD94]. **tenth-** [TBD94]. **term** [RL07, Tem98]. **terms** [CC94, Lóp18, XZ03]. **tessellations** [GS10]. **tesseral** [FM04].

**tests** [Mac94]. **tetrahedral** [FPT06, Kun01, SS04]. **tetris** [CP14]. **their** [ByLl01, CLLS06, CSS98, yGS08, HLT11, JGW15, NSW07, PŠWX03, RSA14, She08, Wat96]. **themes** [Hof06]. **theorem** [CKBP11]. **theorems** [GP14]. **theoretic** [RJ00]. **theoretically** [Wie97]. **theory** [AM14, LL99, LS05, MNPR06, Ock96, dLdDSM07]. **thermal** [TBD94]. **thermoelectrical** [BGMS07]. **thin** [DD94, FP99, Joh13, Ryn00, Yoo01, ZB99]. **thin-plate** [Joh13, Yoo01]. **third** [PM17, SM00]. **three** [BS05, HSY16, LLS96, LL98, LG13, LL07b, MSS02, RL07, WHS18]. **three-dimensional** [LG13, WHS18]. **three-direction** [BS05]. **thresholding** [AL13]. **Tight** [BF03, BS06, CK03a, Jia03, PŠWX03, CCSS09, CHSS03, FWW06, Jia09b, LMO14]. **Tikhonov** [HT11]. **tilings** [CTZ02, FPT06]. **Time** [DD94, TB16, VK96, ALZ02, ANSZ17, Awa15, BF11, GG06, GPG15, HY18, KC16, Lem09, LZZ09, LHY08, LL07b, MNC16, Onc14, PM17, Rau05, RST<sup>+</sup>14, gTpM02, TGA96, VW02, Xu14, ZPY15, ZW12, dFGAJN18, HL06]. **time-concentrated** [GG06]. **Time-dependent** [TB16, LZZ09, TGA96, dFGAJN18]. **time-domain** [VW02]. **time-fractional** [PM17]. **time-frequency** [Onc14, RST<sup>+</sup>14]. **time-harmonic** [HY18, LHY08]. **Time-marching** [DD94]. **Time-stepping** [VK96]. **timer** [ALZ02]. **TM** [LN14]. **Tocher** [LL98]. **Toeplitz** [WLW16]. **tolerance** [CHMR97]. **tomographic** [GL13]. **tomography** [HLN12]. **tool** [Sch15]. **Top** [DMMS11]. **Top-level** [DMMS11]. **topography** [CT17b, IL16]. **topological** [Cho95, HLN12]. **topology** [HFH<sup>+</sup>07]. **Toric** [Kra02]. **torus** [Pot04]. **Total** [BL09, LM06, BCE<sup>+</sup>09, DGK15, DT12, FRT09, JZ10, KPY09, Maz01, PZ16, ZPR03]. **totally** [GP95]. **traces** [HJH12]. **tractability** [NSW16]. **Training** [BE00, WFL02]. **transaction** [ALZ02]. **transfer** [HXC10, PCM<sup>+</sup>96]. **transform** [ANSZ17, BMB14, CCH<sup>+</sup>08, DLP98, FW96, LL12a, MXY13, PM17, RST<sup>+</sup>14, SL05, SS13, TZ03, SF14]. **transformation** [SFDE15]. **transformations** [FWW06]. **transforms** [ADL11, DMT03, Dam07, HKR04, Kei95, LM14, PST08, Ste98]. **Transient** [BGMS07, Awa15, BMSR<sup>+</sup>16, CT17a, LC13, VW05]. **translates** [AM14, CL12, LL99]. **translation** [LSLS14, MXZ08, vdMNS03]. **transmission** [DRS08, HJH12]. **transport** [Moo17]. **trapezoidal** [Pla12]. **traps** [ZD17]. **traveling** [Wan08]. **travelling** [She13]. **treatment** [Bes03, Hau97, Hol01]. **Tree** [BDKY02]. **Tresca** [HKRS14]. **triadic** [ZA10]. **triangle** [AS02, yGW07]. **Triangular** [LLS94, CLZW13, DP13, SL05, ZL17]. **triangulated** [NSZ04]. **triangulations** [FPT06, NS04, Rem12]. **Tribute** [Sil99]. **trigonometric** [DS13, KLNS95, LN14, LWY06, Pot04, Rau05, RSA14]. **trimmed** [HFH<sup>+</sup>07]. **triple** [WHS18]. **triply** [Tor16]. **trivariate** [AS08, LL04]. **troubled** [ZQ13, ZG16]. **troubled-cell** [ZQ13, ZG16]. **truncated** [CGW13]. **tuning** [Nes16]. **TV** [MSXZ13, RWT13]. **twelfth** [TBD94]. **twelfth-order** [TBD94]. **Two** [ASS10, CLM03, CCH<sup>+</sup>08, Jia03, Plo95, BNP14, Bre95, Bün11, Che02, CS94, Dad17, DLS14, FP99, yGmW98, HKRS14, HT12, HFH15, JN18, KS17, KF03, LD07, MR15, MR96, OS09, OP11, RH15, SM00, Sun14, XZ01, ZQ13]. **two-body** [HKRS14]. **two-cell** [Dad17]. **Two-dimensional** [CCH<sup>+</sup>08, JN18, KF03, MR15, SM00, ZQ13]. **two-grid** [BNP14, XZ01]. **two-level** [Bre95, HT12]. **two-point** [yGmW98, KS17, MR96]. **Two-scale** [Plo95, CS94, RH15]. **Two-step** [CLM03, HFH15]. **type** [Awa15, BR07, BS97b, BS97a, BS00, Chr15, CKP13, CSWP99, CN96, Cum96, CT17b,

Dar03, DHO16, DOZ94, DY01, Fra99, GO95, JMO00, KL07, LLS94, LLS96, LT12, LL07b, MSZ06, Maz98, PSNP11, RWT13, Sab04, SS04, SS96, WZL17, Xu14, Yan01, Yan03, YZ13]. **type-4** [SS04]. **types** [LL98].

**ultra** [Jon17]. **ultra-precise** [Jon17].

**unbounded** [GZ13, LHY08]. **Uncertainty** [GY00, LSL14, MSST14, RT14].

**Unconditional** [CLC16]. **unevenly** [LP14].

**unified** [Bar03, Grä12, Lee16, Wal95].

**Uniform** [Che06, CLZW13, DGS18, LW03, TZ07, Atr12, ANSZ17, DG16, DY01, HO17, Lev99, OP11, Rem11, ZD16]. **uniform-grid** [DG16]. **Uniformity** [LW03]. **Uniformly** [KXZ04]. **unimodular** [BD10]. **unions** [Grö03]. **Uniqueness** [GP14, ZYY16].

**unsolvent** [Cal05]. **unit** [CWLH95, GVSLN96, LM14, Leo13, Li08a, Li08b, Xu04a, Xu04b, zCFX07]. **unitarily** [vdMNS03]. **unitary** [DLP98, GLT93]. **unity** [CM12, HL05, NSS04, ZSHZ15]. **univariate** [Fra99, MH17]. **University** [New96]. **unknown** [Wie15, ZPR03].

**unlearning** [HL96]. **unorganised** [BLP02].

**unstable** [She13]. **unsteady** [BBB<sup>+</sup>16].

**unstructured** [Hag98, Wie97].

**unsymmetric** [LLS09]. **updates** [AZW15].

**upwind** [Ang00, Wie97]. **upwind-discretizations** [Ang00]. **use** [RSA14]. **Using** [Cas07, Lev99, Zoz15b, AH96, BGH15, CGW13, Dou94, EHV17, FF95, FGS16, FHN94, FS98, GO05, yGSIX03, HFH<sup>+</sup>07, IUUV17, Le 05, LW14, LLY06, Li05a, LZ98, LWL17, MNW99, MNW04, PTC12, RWT13, Sch09, SS08, WL12, WZL17, YLBL12, Yoo01, ZB99, ZPR03, ZT15, Zhu15].

**validated** [HBM03]. **validation** [HL96].

**value** [ABI15, CWX12, FK98, FK10, GM14, yGmW98, HH15, KS17, MR96, RGB13, Rip99, Sch11b, vdH93]. **valued** [Füh08, Fus08a, Fus08b, GMB97, HHS04,

IB17, Low05, XKY15]. **values**

[CLM03, MC10]. **Vandermonde**

[Maz98, Tom96]. **Vanishing** [Füh16, BP93, CHR00, CHSS03, CaL06, GT14]. **Variable**

[BR13, Bra01, BS00, CT17b]. **variables**

[GS00, MS12, Xu00]. **Variants** [HH15].

**variation** [BL09, BCE<sup>+</sup>09, CGP95, DGK15, DT12, FRT09, JZ10, KPY09, PZ16, QW11].

**variation-penalized** [BL09]. **Variational**

[CW16, JK08, KL16, LB93, OBS15,

WOBL17, dLdDSM07]. **variations** [Hof06].

**varying** [Xia13]. **Vector**

[ABD08, EPP00, AC00, CX06, Füh08, GO05, GMB97, Han06, Rob98, SM00, Sal98, Sor18].

**vector-valued** [Füh08, GMB97].

**vectorizing** [Dou94]. **Vectors** [HM03].

**version** [GH06, Jan98, WY17]. **versus**

[Cul96]. **vertex** [RJ00]. **vertex-modified**

[RJ00]. **via** [BRSV15, BJX09, CP14, Dam07,

FY13, FGO14, GS10, GL13, HS13, Kos15,

LM04, Las16, LM14, MS04, Moo17, NP18,

PR15, SF14, WFL02, ZA10]. **vibration**

[ARPR01]. **virtual** [MU14]. **viscoelastic**

[ZPY15]. **viscosity** [GT14, ZPY15].

**viscosity-splitting** [ZPY15]. **Vlasov**

[AK15]. **Voigt** [BNP14]. **Volterra**

[BJX09, Gu17, HS16, Pla12, SW96, SC08,

WY17, XH13]. **volume** [Ano16, CDP03,

CLZ02, CWX12, CEHK18, Hem95, Hem96,

HR17, KH05, KHM16, LN14, LC09, LC13,

LL10, LL12b, Noe95, Zha14, ZT15].

**Voronoi** [GS10].

**Wachspress** [DOZ94, FK10, KB15].

**Warping** [ZB99]. **water** [CT17b, vdHS00].

**watermarking** [Ren09]. **wave**

[ADG17, CR08, GT14, HY18, HX02, JRS15,

NV10, She13, TZ07, ZG16]. **Waveform**

[vdHv97, HJJV97]. **Wavelet**

[DPS93, DKLT93, GLT93, HR02, JL06,

TSZ98, ANSZ17, BS06, BDMR10, CP99,

CMX02, CP03, CKK16, DMT03, Dün09,

Ehr00, EGL13, FOW14, FW96, Füh16,

Gom95, Kei95, KKLY10, LT98, PL05,

PST08, RSZ11, RWT13, XZ03, Zha05].

**Wavelet-based** [TSZ98].

**wavelet-Galerkin** [Gom95]. **Wavelets**

[Pla95, CT05, ČF11, CHR00, CS94, CSW96, CaL06, DKB99, FM04, GY00, Han98, Han10, JS99, Jia09a, Jia11, KKL03, Lai06, PŠWX03, PST95, Rau05, Str13, Urb95, ZhXpZ16].

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[GN01, Tem00, Flo94, LLC16, Tem02, WY16].

**weakly** [Awa13, HS16, Lee16, Pla12]. **WEB**

[AHR16, HAS05]. **Web-method** [HAS05].

**WEB-splines** [AHR16]. **weight** [Xu98].

**Weighted** [CP14, Dam07, Kva14, MS16].

**well** [CT17b]. **well-balanced** [CT17b].

**Wendland** [CSW14, Sch11a, War13].

**WENO** [JN18, LQ14, TQ17]. **which**

[MXZ08]. **while** [Dou94]. **Whitney** [SS96].

**Whittle** [BRS13]. **whole** [BKK17].

**wideband** [DMT03, DG13]. **widths**

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[SS13]. **windows** [CKK12, ZZ09]. **wire**

[DD94, Ryn00]. **wirebasket** [FH18]. **within**

[Jon17]. **without** [KXZ04]. **work** [CP07a].

**X** [GL13]. **X-ray** [GL13].

**Young** [MRS03]. **Yukawa** [KNQ16].

**Zero** [JW95, BD10, Flo96b, GG16]. **Zero-**

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