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1 [AAN11, Käm13]. 2 [CK16, DH15a, HMP11, Liu11, Loi13, NS10, RBGS17]. $2k$ [CZZ15]. $2p$ [HZZ19]. 3 [DH15a, GKR13, LOR11, RBGV13]. A [CC14, KLL16]. B [LL15, LO13b]. BDM_1 [BFK16]. C^* [XWG10]. C^0 [BGGyS12, BSZZ13, BGSZ17, BGyS18, DLT13, KS14, Poe19]. C^1 [ABSV16, MM10, Moo16, Wal14a]. C^2 [BMV18, BD19]. C_0 [GG17]. dG [SZ15]. ℓ_1 [Woj12]. ℓ_q [LXY13]. $f \in L^2$ [CK10]. G [BHHN14]. H [CK11, DW12, Sau10, YG15]. $H(\text{curl})$ [GHV18]. $H(\text{div})$ [BMRB19, AC16]. H^1 [BJ19, CFQ18]. H^2 [CLS18]. H_{div} [DHH13]. hp [HLM13, SSW13a, SSW13b,

ZW13, ASV15, BHH10, BTG12, LM11b, MPSV18, MBMS11, Sau10, SZ15]. L [CCCS16, Ste13]. L^1 [WSD15, HN11]. L^2 [ANP17, DEM15, DLT13, HS13, LYZ15, TV16, WL16, XZwSW19, ZLY16]. L^∞ [SW19]. L^p [LM14a]. L_1 [YKF18]. L_2 [Ku11b]. λ [Sau10]. M [CFQ18, Mor16, Sch16]. \mathbf{R} [PWZ13]. \mathbf{R}^s [Dic11]. \mathbf{P}_q [JMN14]. \mathcal{C}^0 [BN11]. $\mathcal{O}(1/k)$ [HYZ16]. $\mathcal{O}(N)$ [CCCS16]. $N \geq 2$ [ASW10]. $\mathcal{O}(1/n)$ [HY12]. p [BBDR12, BCD⁺11, GB10, HFE18, HMP11, Sau10, YG15]. $p(\cdot)$ [BDS15]. $p(x)$ [DLM13]. P_1 [WZ12]. P_1 [AC12, KWC10, KWC17]. P_N [ES19, LHM⁺16]. R^N [ASW10]. $W^{1,\infty}$ [ALS13]. W_p^2 [NZ18].

-Approximations [ES19]. **-Based**

[DHH13]. **-BEM** [BHH10, LM11b]. **-Chains** [RBGS17]. **-Conforming** [WZ12, BMRB19]. **-Conformity** [LLS18b]. **-Conjecture** [CZZ15]. **-Convergence** [CLS18, LL15]. **-D** [CK16]. **-Decompositions** [CFQ18]. **-DGFEM** [SSW13b, SSW13a]. **-Dim** [Liu11]. **-Discontinuous** [ASV15]. **-Finite** [MPSV18, Sau10]. **-graded** [Mor16]. **-Inequalities** [CFQ18]. **-Lagrange** [Loi13]. **-Laplacian** [DLM13, BDS15, HFE18]. **-Method** [Ste13]. **-Module** [XWG10]. **-Nonconforming** [BTG12, KWC17, AC12, KWC10]. **-Norm** [BJ19, Ku11b, NZ18, XZwSW19]. **-Potts** [WSD15]. **-Problems** [GHV18]. **-Projection** [TV16]. **-Semigroups** [GG17]. **-Series** [LO13b]. **-Setting** [Poe19]. **-Splines** [BMV18]. **-Stability** [DEM15]. **-Stable** [CC14, CCCS16, KLL16, SW19]. **-Stokes** [BDDR12]. **-symplectic** [BHHN14]. **-Version** [BCD⁺11, GB10, HMP11, MBMS11].

Absolutely [FW14]. **Absorbing** [BRD15, LZ18]. **Abstract** [FPvdZ16, HS14, LS16, VZ18a]. **Accelerated** [PRX19]. **Acceleration** [DSZ17, KKN19, TK15, WN11]. **Accepting** [GWW12]. **Accretive** [Pla17]. **Accuracy** [AVZ15, AP16c, ARwS19, ABBM11, AHZ18, BCE14, BRO10, BH12, Kol14, LL11, LLN18, Liu13b, MJRK11, ZH15]. **Accuracy-Conserving** [MJRK11]. **Accurate** [BCZ14, BCJT16, BS19, CW19, CGSW13, CD14, FMT12, GRT14, Gra17, KM12b, LJC17, LXZ18]. **Acoustic** [BLRX15, BS11, CW13, NW19]. **Acoustics** [IGVGF19]. **Acting** [GY16]. **Action** [FS11, WYZ18]. **Adams** [RD17]. **Adaptation** [KH14]. **Adapted** [ANP17, XZO19]. **Adapting** [PBL15]. **Adaptive** [AABR13, AHZ18, BD16a, BMS10, BM11, BET11, BY17, BPRR19, BG19, BN10, BDN13, BD16b, BCS18, BOS10, CNSV16, CG12a, CR12, CGS13b, CP15, CH18b, CS11, CX10, CW17, DHSW13, Dem10, DO12, DTZ13, Era13, EP16, FKMP13, FFP14, Fei19, GL10, HKS11, HY18, HHX11, KAD19, KRR15, KY18, Li19, Mig19, MAF19, NSS19, OP12, PWZ13, SMSF15, WBL⁺15, ZWGB15].

Adaptivity [Bin18, CR17, FPvdZ16, PVWW13]. **Addendum** [GL12]. **Additional** [DH15a]. **Additive** [CHL17, CHJ19b, Jen11, KLS10, Kwo11, LC15, SG15, Zou18]. **ADI** [BC17b, DKS11, EJS19, ZLL⁺14]. **Adini** [HS13]. **Adjoint** [CBHW13, GU10a, GU10b, HS15, IPP13, SNSM13]. **Adjusting** [ZF16]. **Admitting** [CFQ18]. **Advection** [BH19, CQR13a, CBHW13, DDE15, DEV13, HH14, HL10, KHCR19, LD19, LH12, PV16, PW14, WW10b, WSZ15, Wel11, Zha13a, ZTRK15, ZHA19, ZW11]. **Advection-Diffusion** [BH19]. **Advection-Dispersion** [ZW11]. **Advection-Dominated** [CQR13a, HL10, LH12]. **Affine** [DKG⁺14, DKGS16, GHS18, HVC15]. **Affine-Parametric** [GHS18]. **Age** [CGKMC19, MKW14]. **Age-Structured** [CGKMC19, MKW14]. **Aggregation** [JV15]. **ALE** [BKN13, Liu13b]. **Aleksandrov** [CHW19]. **Algebra** [BDSV10]. **Algebraic** [BJK16a, BS14, BCKZ13, DGK13, LB13, LB16, LM11a, TYK11, TYK14, XZ18]. **Algorithm** [AKK⁺11, BMK10, BLRX15, BdBE17, BCG⁺10, BCHB10, BMV18, BR15b, CET⁺16, DW12, DW13, DTZ13, Fio18, Fou11, GWW12, HYZ16, HH14, JMN14, JML13, Kuz13, LTX13, LK16, LW18, Mac15, MT18, Oh13, PWZ13, SY12, TL15, Yin09, ZHS16]. **Algorithmic** [SYY19]. **Algorithms** [ARwS19, ABGJ13, ASV15, AKT14, BG14a, BLFS17, CPCD19, CKW13, DT17, GRT14, Gra17, LO17, Wan15, Zha13a].

All-At-Once [Kal16, TZ13a]. **Alleles** [XCLY19]. **Allen** [BMO11, DY16, DJLQ19, FLZ17]. **Almost** [GKR13, KP12, Mao15]. **Along** [DDP17, MM16, Käm13, LCJ⁺18]. **Alternating** [HY13, HY12, JJLW16, LYZZ18b, ORU18, RU13, YH16, nZzSZ12]. **Alternative** [DW13, ILNS19]. **American** [KTK17]. **AMLI** [HVX13]. **AMLI-Cycle** [HVX13]. **Ampère** [CHW19, FJ17, FO11, FO13, Ham19, LN18, NZ18]. **Analogues** [GT19a]. **Analysis** [ALS13, AP16a, AM17, AU14, ANS15, AKP14, ABBM11, ABPV12, AGK⁺11, BBHJ15, BJK16a, BDS17a, BMO11, BLWW13, BBK15, Bec11, BKT13, BCPS12, BNS13, BLM10, BSS10, BCHB10, BB12, BB13, BO11, BPS12, BPS11, BPP15, BSO12, BCM10, Bré13, BBE11, BGSZ17, BRK14, BFK16, BK10, BTG12, BTDG13, BM16, BES12, CHWG15, CHP10, CKP11, CST13, CR15, CNBW17, CET⁺16, CH13, CL18, CQ17, CG17, CG18, CZ13, CY10, CH18d, DF12, DG16, DG11, DDD⁺14, DFW15, DD12, DS10, DGM⁺17, DE11, DKS11, DW15, DZZ19, EJS19, EO14a, EO14b, ELN13, FLL⁺19, FPvdZ16, FW12a, FLX16, Gal17, GH15, GMM12, Gau15, GL15, GGNV10, GMP15, GKR13, GG13, GKN⁺18, Gra15, Gra17, GLR18, GMS18, GK10, GS11, GHY17, HT16, HKS11, HSB17]. **Analysis** [Han13, HH13, HS14, HR13, HMP11, HS16, HT17, HWZ17, HH10b, HVX13, HY18, HJWZ16, JLQX14, JL18, JML13, Jin11, JLPZ14, JLZ18, JN11, JN15, KTK17, Kar18, KCDQ15, KWB15, KK18b, KP10, KHCR19, KV10, Krö19, KL15, KPR13, KST15, KWC10, KWC17, KM12c, LK18, Lau17, LTT13, LSW10, LG11, LOR11, LSBTS19, LR13, LH12, LY11, LC15, LS15, LSW18, LLX19, LM10, LCY13, LWW⁺15, LK16, MLMS17, MMR13, MS11, MNP12, MT13, Moo19, Moo16, Mor16, NSS19, NS10, OR14, PF13, QTX15, QD11, RL13, RGMP16, Ren16, RW17a, SV10, SS17a, SW12, SLY16, SX18, SSS11, SU12, SV15, SOG17, SL15, TZ13a, TT15, Tha13, TD13, TK15, Tow15, TW18, VL11, WYZ18, WSS14, WZ19, WP19, Wel11, WW10c, WS18, WZ18, Wu18, XQ10, XZwSW19, Yam19, YKF18, YS13, YLH18]. **Analysis** [ZS10a, ZG12, ZLB16, ZHS16, ZD10, ZZLB13, ZW13, MMT16]. **Analysis-Based** [Tow15]. **Analysis-Suitable** [Mor16]. **Analytic** [AKT14, GK13, Spa14, ZF16, ZWX13]. **Analytical** [BG14b, LR15, LR16]. **Analytically** [KW16]. **Analyze** [AD18]. **Anderson** [PRX19, TK15, WN11]. **Anderson-Accelerated** [PRX19]. **Angle** [Ran13]. **Angular** [HM17, KW14a]. **Anisotropic** [CC18, CC19, CHP10, EWK13, HPS17, HKL16, IGVGF19, Kop15, Mir14, Mir16]. **ANOVA** [BG14a]. **ANOVA-Type** [BG14a]. **Anti** [HM14]. **Any** [LYZ15]. **Aperiodic** [LZ17]. **Application** [AD18, BDLV17, CK10, CDM13, CST13, CET⁺16, Col10, EST18, GLZ18, LL19, LMM⁺13, NZ12, NV14, PS19, SWWW12, TW18, DDD⁺14]. **Applications** [Bac13, BR15b, CS18a, Cim12, D'A12, DKS16, GB10, Ku11a, ILMZ19, LA11b, RGMP16, SV14, SYY19, TD14, TZ13b, mXqW10, ZD12, dVBD⁺18]. **Applied** [Bec11, BD17, DP12, Mas13, MT18]. **Applying** [ACCE10]. **Approach** [AAEM15, AZC14, BPR17, BD17, BES12, CEH15, CC14, ES19, FJK13, GS14, HNSV13, HZZ11, HO14, Kar18, LSW18, LCYC15, NOS16, PM14, RZ18, SG15, SPH18]. **Approaches** [GH12]. **Approximate** [ADGP14, ADGP16, DHP13, GRT14, GWW12]. **Approximated** [BH12, Lee13]. **Approximating** [CHL17, GR18, RD17, Ye13]. **Approximation** [AVZ14, AM17, AJ19, AMK19, AC19, AR10b, AGP17, BCDS17, BCGS10, BC12a, BMO11, BMR12, Bar13,

BBDR12, BMS14a, BK12, Bin18, BSO12, BG14b, BCL13, BMV12, BL18, BDS15, BOS10, CPCD19, CS13, CMS16, CGS13b, CLY19, CCM10, CFNP18, CLJ⁺16, CL19, CDS10, CH19, D'A12, DS11, DKS13, DHS17, EO14a, Erv13, FHW12, FW12a, FF14, FLM18, FKLL18, GS19, GG13, GRZ15, GG10b, GG17, GK10, GP16b, GP17, HLZ15, HKL16, Ing11, KCDQ15, KW16, KLW16, Kou17, KLS10, KLM11, KLM14, Krö19, KMU16, LM13a, LMV13, LMO12, LV16b, LV17, LX14a, LM11a, LMR10, MZ13, MH18, MW12, Mig19, Mir18, MW19, NKK13, NW19, NFM18, OS16, OTB18, PST15, PWZ13, PBL15, Röβ10, SK13, Sel10, SY12, SS13b, SS14, SDG16, Ste13, TW17, WYZ18]. **Approximation** [WW11b, WW10c, Xia16, Yam19, YDG10, ZB15]. **Approximations** [AB17, AP16c, AR10a, AABR13, ACSW12, ACSW14, ADM21, ADM12, BPS12, BJ13, BDO18, CDM⁺17, CGH⁺10, CELR11, CR18, DKS16, Dör12, DY16, ES19, FH10, FSX13, GU10a, GU10b, Git13, GG10a, GWW14, GY16, GMR15, GN18b, HR13, HWZ17, Jen11, KWB15, KM12c, LL11, LS14, LWD17, LYYM10, LY13, MNP12, Mur14, NV14, PLR11, SW10, TD13, VL11, WZ12, WYZ14, WZ19, YZ11, Zhe14, Zou18, dFGAN10]. **Arbitrarily** [FMT12, WN18]. **Arbitrary** [AP16c, AR10a, BLM11, CS12b, GN18b, IPP13, LO13a, MH18, PBL15, Sch16, TX19, Yam19, YLH18]. **Arbitrary-Order** [BLM11]. **Area** [BGN16]. **Arguments** [Mas15b]. **Arising** [AP16b, AT16, BBHJ15, BDdSM13, KTK17, WCF19]. **Arlequin** [ABIR19]. **Arnold** [GMM12]. **Arnoldi** [BSS10, Nov17]. **Arnoldi-Based** [Nov17]. **Aspect** [ABW15]. **Aspects** [Ebn14]. **Assimilation** [MT18, XA16]. **Associated** [MV14]. **Assumed** [BMcS10]. **Assumption** [Fis15]. **Assumptions** [CDNP18, DH15a]. **Asymptotic** [ASW10, BCR16, BCCHV14, CZAL10, CZAL13, CG12a, CS18b, DP13, GK10, HSZ18, JLQX14, KFJ16, LLS16, LLS18a, LM10, LCY13, NR12, Nic17, Sin14, TYK11, TYK14, Tow15]. **Asymptotic-Preserving** [HSZ18, LLS16, LLS18a]. **Asymptotically** [DY16, FR16, FR17, LD19, SDM18a, SDM18b, TD14]. **Atmosphere** [TW17]. **Atomistic** [OBLS14, OZ13]. **Atomistic-to-Continuum** [OBLS14]. **Atomistic/Continuum** [OZ13]. **Attractivity** [Poe19]. **Attractor** [BCGS10]. **Augmentation** [CCWX11]. **Augmented** [BO11, CGOT16, CGLY17]. **Auto** [ZLB16]. **Auto-Convolution** [ZLB16]. **Automatic** [GG17]. **Auxiliary** [GNV18, SX18]. **Average** [Bla18, Ran13]. **Averages** [Wan14]. **Averaging** [MST10]. **Avoiding** [JN15]. **Axioms** [CR17]. **Axisymmetric** [Erv13, LL11].

B [DGM⁺17]. **B-Spline** [DGM⁺17]. **Back** [TT10]. **Backscatter** [Han11]. **Backward** [AC10, Akr15, DF12, Gao14, GHL18, PKK⁺15, Pot16, SZZ18, ZZJ10]. **Balance** [Gos14, SNSM13, SSS11]. **Balanced** [AGP17, BdL10, BCL13, DCdL18, LS13b, SGMS13]. **Balancing** [BN16, DD12, Lee15]. **Ball** [LX14a]. **Banach** [Jin15, MRL14]. **Bandlimited** [Che11b]. **Barrier** [AHS14a]. **Barycentric** [GK13, GN18b, KB12]. **Based** [AGT18, AX13, AAN11, AKT14, BG10a, BdBE17, BG11, BCKZ13, BIT13, CZ10b, CM14, CN17, CH18c, CH13, DHH13, DO12, DGM⁺17, ELS15, EV10, ELN13, GW18, GWW12, Gra17, GHSS19, GM17, GL19, HLY13, HNSV13, HT17, JL10, Kal16, KPK11, LZ17, LLN18, LM14b, LQB14, MW12, MT11, Nov17, Reu13, RW13, Sel10, SW10, Tow15, VL11, WCK15, YB11, ZCY12, ZHA19, BC12a, CEH15, OBLS14]. **Bases** [FHN⁺13, MM10]. **Bashforth** [RD17]. **Basis** [CQR13b, HSW13, Mir14, PS19, RÁM⁺17, RBGV13, ZDK18]. **Bayesian** [CDS10]. **BDDC** [BCLP10, GKR13]. **BDF** [BC17b, CWYZ19, WCF19]. **Beam**

[QTX15, Zhe14]. **Bean** [WY19, You17]. **Beavers** [CGH⁺10, SZ13]. **Bed** [Tak13]. **Behavior** [BR15a, BCCHV14, FJK13, HN11, MZ14, YB13]. **Bellman** [GS19, HFL12, JS13, SS14, WR11]. **below** [KV10]. **Beltrami** [BDO18, BD19, WCH10]. **BEM** [BHH10, CGS13c, FT17, GM19, LM11b, RW13]. **BEM-Based** [RW13]. **Bending** [Bar13, BCLP10, HHX11, RZ18]. **Best** [AC19, AZC14, LV16b, LV17]. **Best-State** [AZC14]. **Between** [CELR11, HDVV10, GHM10]. **Bézier** [JKK⁺13]. **BGK** [HSZ18, RSY12, RY18]. **Bi** [CCD18, SL15]. **Bi-Projection** [CCD18]. **Bi-quadratic** [SL15]. **Biased** [Ket11]. **Biharmonic** [BG11, HS13, JWX14, Zul15]. **Binary** [ZG18]. **Binding** [KK18a]. **Bingham** [CCD18]. **Biot** [Nor16]. **Biquadratic** [LL13]. **Bivariate** [GL18, SVD14]. **Black** [LX14b]. **Blended** [AW10a, VL11]. **Bloch** [DS18, LZ17]. **Block** [LX17, PL10, RP13, RL15]. **Block-Centered** [RP13, RL15]. **Blow** [KM12c, YB13]. **Blow-Up** [YB13, KM12c]. **Body** [BCM10, GHM10]. **Boltzmann** [AGT18, RSY12, RY18, ZG18]. **Boosting** [Mac15]. **Bose** [BDLV17, HMP14]. **Both** [Hu15, Liu13a]. **Bound** [HS13, LXZ18, LYZZ18b]. **Bound-Preserving** [LXZ18]. **Boundaries** [BK12, BMS14c, BMS14b, GL15]. **Boundary** [ANS15, ANP17, AN10, BHHS15, BH11, Bea15, BRD15, BY17, BRY15, BS11, BCG15, BP10, BGGyS12, Bur12, CM18, CX10, CCWX11, CQR13a, CSZ19, CK14, CdTGGP18, DK14, Era12, Era13, FW13b, FKMP13, GHM⁺18, GL11, GL12, GLL11, Ham19, HH10a, HLM13, HJHUT14, JWX14, Kas13, KCDQ15, Kaw19, KSU14, KSS12, KP12, LZZ18, LM13b, LM14a, Mas15a, Mas15b, PL10, PW19, RN17, RBGS17, SDKS13, Ste11, SU12, SCP18, WYZ14, WBL⁺15, Wan15, YHX17, ZD10]. **Boundary-Value** [Kaw19, WYZ14]. **Bounded** [UU16, WY11]. **Bounds** [AR10a, ADGP14, BH11, CDM⁺17, CE18, Die14, FGS14, LZ14, Ovt11, Peñ07, SV14, Sin14, Spa14, WW13, WL11, Xia10, Xia12, Ye13, YXL19, ZWX13]. **Box** [DP12]. **Box-constrained** [DP12]. **Boxcar** [BCS13, CGKMC19]. **BPX** [LX16]. **Breadth** [LZ12]. **Breakage** [KST15]. **Bregman** [HYZ16]. **Brinkman** [Tak13, HK16, VV14]. **Brittle** [BOS10]. **Broken** [KWC10, KWC17]. **Bromwich** [Wei19]. **Brusselator** [CKK19]. **BSDE** [GL10]. **BSDEs** [Cha14, CR15]. **Buckling** [LMR10]. **Bulk** [DER14, DFS17]. **Burgers** [AGK⁺11, BJ13, LMO12]. **Butterfly** [KM12b, Yin09]. **Cahn** [FW12a, AM17, ABSV16, BMO11, BMS14a, BGGyS12, CDMP16, CWYZ19, DFW15, DY16, DJLQ19, FLX16, FLZ17, FKLL18, KLM11, KLM14]. **Calculate** [CBHW13]. **Calculation** [ADGP14, ADGP16]. **Calculations** [Bac13]. **Calculus** [Li19, MM13a]. **Capturing** [ZM16]. **Caputo** [LL19, RD17]. **Carleman** [BdBE17]. **Carlo** [AHS14b, AHS16, AKP14, BFRS16, CST13, DSZ17, Dic11, GHS18, GLZ18, GSY16, HW15, He19, JML13, KSW14, KY18, KSS13, MA18, Ull17, WCK15, Yam19]. **Cartesian** [BG18, CK16, Mir14, Mir19]. **Case** [BC17a, Dic11, ER18, JMN14, LZ12, LO13b]. **Cauchy** [BLO18, CvN10, DHH13, GL19]. **Causality** [Mir16]. **Cavitation** [SL15]. **Cavities** [LMS13]. **Cell** [FR16, FR17, LR18b, Nor15, Nor16, OHBNX15, PW14]. **Cell-Centered** [Nor15, Nor16, OHBNX15]. **Center** [PKK⁺15]. **Centered** [EP16, Nor15, Nor16, OHBNX15, PV16, RP13, RL15]. **Centered-Potential** [PV16]. **Central** [CSV19, LSZ18]. **Centroidal** [BR15b, Urs17]. **Certain** [FFP14]. **Certified** [MGGJ13, RÁM⁺17]. **CG**

[Wal10, Wal14b]. **CG1** [BBK15]. **Chain** [DMP13, JML13]. **Chained** [AF16]. **Chains** [And13, CG17, CG18, RBGS17, WP19]. **Changes** [BMO11]. **Chaos** [ZTRK15]. **Chaotic** [WXZ18]. **Characteristic** [AW10b]. **Characteristics** [LR18b, WSS14]. **Characteristics-Mixed** [WSS14]. **Characterization** [MB16, Urs17]. **Characterizations** [HW17]. **Characterizing** [LQT16]. **Chebyshev** [DW14, KPK11, LR14, PGvD12]. **Chemical** [CL19]. **Chemistry** [FLL⁺19, LK18]. **Chemotaxis** [NR12]. **Choice** [FNP14, JL10, PST15]. **Ciarlet** [Zul15]. **CIP** [BS16b, DW15, LW19, ZW13]. **Circuits** [AKGR14]. **Circulant** [GKN⁺18]. **Circular** [GX14]. **Clamped** [BSZZ13, BGSZ17]. **Class** [ABIR19, Che10, CRR16, CR18, DP12, DHL17, FFP14, KSS13, Kwa12, LR13, LYZ15, LX17, OP12, Pet10, Pet11, RSW17, San19, YH16, ZSZ15, ES16]. **Classical** [GTW⁺12, VZ19a]. **Clenshaw** [DGK13, XB13]. **Cloaks** [YLH18]. **Close** [ARwS19]. **Closed** [HLZ15]. **Closest** [MM13a]. **Closures** [LHM⁺16]. **Cluster** [FLL⁺19, LK18]. **Clusters** [BD16b]. **Coagulation** [BMK10, PW14]. **Coalescing** [HKL19]. **Coarse** [DW13, KRR15, SVZ12, TT10]. **Coarse-Grained** [TT10]. **Coefficient** [CH19, FF14, Mac10, WY13]. **Coefficients** [BBHS14, BDN13, Cha12, CST13, CLJ⁺16, Gal17, GS19, GKR13, mHLZ16, KSS13, LLS13, LJC17, ILNS19, MLMS17, Oh13, PH16, SVZ12, SS17b, SS13b, SS14, TZ13b, Wan16]. **Coercivity** [BS11]. **Coherent** [ABGJ13]. **Cohomology** [RBGV13]. **Collocation** [Bie11, BIT13, CLS18, EST18, FW13b, GN18a, HJWZ16, KPK11, LB13, LB16, LB19, Mas15a, Mas15b, SWG14, YB13, ZG12, ZZK15, ZTRK15, ZLB16]. **Combined** [BBK15, HFL12, Wal14b]. **Common** [GM17]. **Communication** [AKP14]. **Commutative** [LR18a]. **Commutators** [IKS18]. **Commuting** [CF17]. **Compact** [DH15b, Kol14, LXZ18, ILzSsS10, SDKS13, Wan15, nZzSZ12]. **Compactness** [BCD⁺11, Wal10]. **Comparative** [HVX13]. **Comparison** [CPS13, TD13, Wan16]. **Compatible** [BPS11, DY16, LD19, SDM18a, SDM18b, TD14]. **Competitive** [LCS15]. **Complete** [KZ15]. **Complex** [ALS13, ABS12, ABS15, GNV18]. **Complexes** [FN13, FS17]. **Complexity** [AHS14b, BMS10, CG12a, CGT15]. **Component** [GO12]. **Components** [GKR13, KLP10]. **Composite** [Bie11, BS16b, CZAL10, CZAL13, DGS13, LCYC15]. **Composition** [Ver12]. **Compressed** [BRD15]. **Compressible** [BC17b, CK16, EGHL10, KK10, KSW18, OHBNX15, SS13a, Sväl6]. **Compression** [BH17]. **Compressive** [Fou11]. **Computable** [AR10a, BMW19]. **Computation** [AGK⁺11, BORM18, BPS11, CI12, CET⁺16, Che11b, DK13, HL15, JO10, LJC17, LCY13, Seg10, SL15, XZO19, YZ14]. **Computational** [BGN16, BBE11, BES12, CG12a, DFS19, Pet10, Pet11]. **Computations** [HMP14, MTKO17, WNPN14]. **Computes** [FW13a]. **Computing** [BDSV10, Gra17, GM17, Hül10, KW14a, LZ12, LCS15, QW19, Wan14, WXZ18]. **concave** [BS15]. **Concentrated** [PW19]. **Concerning** [GF12]. **Condensates** [BDLV17, HMP14]. **Condition** [BJS13, Kas13, Loi13, Peñ07, Ran13, SCP18, WBL⁺15, Xia10]. **Conditional** [He19]. **Conditioned** [ACSW10]. **Conditioning** [AU14, CD12]. **Conditions** [AKGR14, AN10, BRD15, BRY15, BP10, BGGyS12, Bur12, CGH⁺10, CHP10, CdTGGP18, Der12, HW17, KZ15, KSS12, LZZ18, LYZZ18b, PL10, SDKS13, SZ13, XQ10, ZD10]. **Conductivity** [LCYC15].

Conformal [HSW17]. **Conforming** [CZ10a, CZ12, CDM⁺17, EV15, Hu15, KS14, WZ12, BMRB19]. **Conformity** [LLS18b]. **Conjecture** [CZZ15]. **Conjugate** [ZJB16]. **Connection** [CELR11]. **Conservation** [ACG15, AHZ18, CS13, CMS16, DG16, DHL17, FN13, FMT12, FS16, FLM18, FS11, GPS16, GMP15, GU10a, GU10b, GNPY14, GP16a, GP17, HLY13, Ket19, LY11, LAFS16, MZ16, MSZW13, MT11, Ren15, Ren16, Sol18, ZM16, ZS10b, ZS10a, ZH15]. **Conservative** [AGT18, AW10b, CFMP13, CER14, LY12, LWZ19, WBN16, WBN17, WN18, WY13, ZG18]. **Conserved** [CHWG15, CLL10, HZZ11]. **Conserving** [GMS18, MJRK11, ZGD17]. **Consistency** [OZ13]. **Consistent** [BV10, BNP10]. **Constant** [mHLZ16]. **Constants** [BS11, Krö19, SV14]. **Constrained** [BBS16, CS13, CGT15, CG12b, CK14, HM16, Kou17, LVW18, SW16, XA16, ZCY12, DP12]. **Constraint** [DLTZ13, LYM10, Log17, MT11]. **Constraints** [ACCE10, BN16, BKS17, BG10b, BF17, BGyS18, DD12, Lee15, LCY13, MM10, MO14]. **Construct** [WBN16]. **Construction** [CF17, DL11, FN13, GSY16, MB16, OZ13, RBGV13, RBGS17]. **Constructions** [BO15]. **Constructive** [NKK13]. **Contact** [BBHJ15, CH13, DH15a, Sch11]. **Context** [BRO10]. **Continuation** [MGGJ13]. **Continuous** [And13, AGP17, GT19a, GWW14, GP16b, GP17, Kwo11, LM13a, LLMS17, LT13, LB19, LA11a, LA11b, WP19, WR12, YG15, ZGD17]. **Continuum** [OBLS14, OZ13, VL11]. **Contours** [DH13b, DTV15]. **Contractive** [Li10]. **Contractivity** [WZ19]. **Control** [ARwS19, ANS15, AF12, AF16, BKM13, BY17, BF17, BGyS18, BHHN14, CDG14, CM14, CK17, CHYL11, CG12b, CQR13a, CSZ19, CK14, DG13, DGGQ16, DEV13, DP12, GLV11, GL10, GY16, GLT⁺17, GHM⁺18, GLL11, HMP15, HL10, HPS13, HM16, Kay10, KL15, LG11, LH12, LV13, LYM10, LCY13, MZ13, MT13, MW19, PVWW13, Pot16, RW17b, SW16, SSZ11, SD19, SY19, TZ13a, WR12, YZ17]. **Control-Constrained** [SW16]. **Control-State** [CG12b]. **Controlled** [ELM15]. **Controlling** [Dem10]. **Controls** [GY16]. **Convection** [AKK14, BB12, BB13, CF12, CSZ19, CPXZ19, CS10, CM10, DH13a, Der12, DJY14, DEM15, Fio18, GHM⁺18, JP17, JLZ16, JN11, Kno10, LXZ18, LYZZ18a, LWZ19, WW10a, XH14, ZLY16, dFGAN10]. **Convection-diffusion** [CM10]. **Convection-Dominated** [AKK14, DH13a, Der12]. **Convergence** [ACCD13, AP16b, AGT18, ABS15, ABPV12, AW10b, AWJ16, AN10, BCE14, Bar12, BLWW13, BCG⁺10, BO11, BHH10, BPRR19, BCJ19, BC10, BSO12, BN10, BD16b, BJ19, BCM10, BCS13, BCS18, BM16, CHWG15, CHP10, CP13, CP15, CH18b, CDM13, CZ10c, CW13, CW17, CTZ18, CHW19, CHJ19a, CS12b, CLP12, CLS18, CWZ14, CDGQ10, CvN10, CR18, CH19, Dem10, DL11, DH15a, DZZ19, DAA13, DKR15, EO14a, EO14b, EGMP13, EWK13, Eng15, EGK13, Era12, EP16, EST18, EGHL10, FHW12, FKMP13, FFP14, FS16, FKLL18, Gaz14, GU10a, GU10b, Git13, GG13, GT16, GMS18, GHY17, GK13, HYZ16, Hal16, Ham19, HY13, HH13, HS14, HY12, HW15, HS15, HW14, HVX13, HY18, HZZ19, HHX11, JLLO19, JS13, JML13, Jin11, JZ12, KCDQ15, KKN19, KWH16, KS13, KPR13, KST15]. **Convergence** [Kuz13, LO17, LS13a, LC15, LL15, LQZ17, LZH18, Li19, LB19, Liu13a, LM13b, LM14a, LK16, LYZZ18b, Mac10, MMT16, MLMS17, MFD17, MK18, Mas15a, MST10, MZ16, MS11, MM14, MN11, NZ18, NSS19, Ney13, Nor15, NS10, OP12, OPW19, PC16, PRX19, Rat16, RZ19, Rid16, RW11, RU13, RSY12,

RY18, SS17b, SSW13b, SLY16, SX18, Sol18, SU12, Ste13, TZ13a, TT15, Tha13, TK15, TZ13b, WYZ18, WMI10, Wan14, XB13, Xia16, YH16, ZM16, ZHS16, Zhe17].

Convergent [BdBE17, BMS10, BSW18, CER14, CRR16, DTZ13, FHM16, FJ17, FO11, FO13, GMR15, Grü13, KK10, LZ17, LNR11, Svä16, WW11a].

Converse [HW17, Pla17]. **Convex** [BLWW13, BC10, BS15, CGR12, GHY17, HN11, HLM13, JL10, Jin15, LV16a, OP12, RU13, SWWW12, YH16]. **Convex-concave** [BS15]. **Convexity** [MO14].

Convexity-Like [MO14]. **Convolution** [CC14, CCCS16, EJ17, ZLB16]. **Cook** [KLM11, KLM14]. **Coordinates** [FGS14].

Coprime [GM17]. **Cordes** [Gal17, GS19, SS14, SS13b]. **Corner** [ERW14, GT19b]. **Corners** [DH13b, DTV15, GSS12]. **Corrected** [AW10b, ERW14, KPK11]. **Correction** [ACEL18, BB16, BJK16a, ORU18, Xia10, XZO19]. **Corrections** [GWW14].

Corrigendum [ACSW14, ADM21].

Corrosion [AKK⁺11]. **Cosine** [GLMV16, HM14]. **Coulomb** [DE11].

Countably [EST18]. **Counting** [KMU16].

Coupled [ARYZ18, BG10a, BM16, D'A12, DFS17, DJY14, FLL⁺19, GHM10, HMO19, KSU14, LK18, MS12, RGMP16, ZZLB13].

Coupled-Cluster [FLL⁺19, LK18].

Coupling [ABIR19, BDS17a, BCL13, CGS13c, DGGQ16, DLLT18, EES18, Era12, Era13, FT17, GMM12, GM19, GN17, LL17, OBL14, OZ13, PVWW13, Ste11].

Covariance [DT17]. **Crank** [AF12, BKM13, GLS14, LGS14, ILNS19, MC18, ZLL⁺14, nZzSwW11, Zou18]. **Credit** [LZH18]. **Critical** [DS10, KK18b, WY19, You17].

Critical-State [You17, WY19]. **Cross** [DKP10, Käm13, Loi13, LY13, Mur14, SW10].

Cross-Diffusion [Mur14]. **Crouzeix** [CGS13a, VZ19b]. **Crystal** [BLWW13, GR15, WW11a].

Crystals [AAEM15, NWZ17]. **Cubature** [Dör12, HNSV13, UU16]. **Cubic** [Arà13, KOS19]. **Cuboid** [Hu15]. **Curl** [DLTZ13, BPS11, DW12]. **Curlicurl** [DLT16]. **Current** [FT17]. **Curtis** [DGK13, XB13]. **Curvature** [BGN16, HLZ15, Zha17]. **Curve** [BDS17a].

Curved [BMS14c, BMS14b, BS16a, LMO12].

Curves [HJHUT14, JKK⁺13, RL13, Zha17].

Cycle [HVX13]. **Cycling** [LO17]. **Cylinder** [QW19]. **Cylindrical** [GPV13].

D [AAN11, CK16, DH15a, GKR13, HMP11, LOR11, NS10, RBGV13]. **Damped** [CH18d]. **Damping** [CCKW15]. **Darcy** [DFW15, BG10a, CGH⁺10, CGHW11, CGSW13, DFS17, DGGQ16, Erv13, FW12a, GHL18, Hes15, MS12, RP13, RL15, SW12, SZ13, ZZLB13].

Data [AMK19, ANP17, BPS12, CK10, CR17, CQR13b, CTZ18, DLQW18, FW12b, Han11, KOS19, LLX19, MT18, WCF19, Woj12, XA16, YKF18, ZG12]. **Decay** [AC19, GL18].

Decomposition [BN16, BG14a, BCHB10, CGHW11, CX13, DD12, DGGQ16, GH12, GJS17, HJJ⁺13, HJKR16, LG19, Lee13, Lee15, LT13, LX14b, LCG⁺10, RZ18, TL15, WX18].

Decompositions [CH18c, CFQ18, GX14, LM11a].

Deconvolution [GRT14]. **Decoupled** [CHL12, KSW18, SY15, ZHS16].

Decoupling [CH18c, GSS12, GHL18].

Defect [ACEL18]. **Defect-Deferred** [ACEL18]. **Defects** [CEM13, WL14].

Deferred [ACEL18]. **Deficient** [IKP11].

Defined [DHS17]. **Definite** [FW12b, Hag11, Wil14]. **Definition** [CSV19, Mor16]. **Degenerate** [AT16, BJK10, BC10, CGR12, JP17, MW19].

Degree [EV15, ESV17, GL19, NWZ17].

Degrees [Sch16, Wal14a]. **DEIM** [CS12a].

Delay [BHX10, CL19, DKS16, MKW14,

TYK11, TYK14, ZFX17]. **Delta** [Col10, DLTZ13, LM13b]. **Delta-Regularization** [DLTZ13]. **Deluxe** [Lee15]. **Denoising** [LM13a, LG19, ZCY12]. **Densities** [Grü13]. **Density** [CCD18, GH10, GS11, LWW⁺15]. **Dependence** [BY12]. **Dependent** [Ben17, CLMV19, CR18, ES16, GLS14, HM17, IKS18, KW16, KKN19, KHCR19, LLS13, MC18, MKW14, SK13, Tak15, WW10a, WS18]. **Derivation** [MKW14, SDKS13, LMO12]. **Derivative** [Cim12, MK18, RD17, UU16, Wan14]. **Derivatives** [DH15b, KB12, LL19, Owe19, PW19]. **Deriving** [BDS12]. **Descent** [KV10, Ney13]. **Description** [BY12]. **Design** [CL15, DHJ17, LCYC15]. **Designs** [ACSW10, ACSW12, ACSW14]. **Detection** [GG17, ZWGB15]. **Deterioration** [BH12]. **Determinant** [ZB15]. **Deterministic** [Liu13a, LW18]. **Development** [KST15]. **Deviating** [Mas15b]. **DFNs** [BBS16]. **DG** [CCF14, CDGQ10, GR19, JLQX14, LR13, Wal10, Wal14b]. **DG-FEM** [GR19]. **DG2** [BBK15]. **DGFEM** [SSW13b, SSW13a]. **Diagonal** [LLN18, MM14, Peñ07, Xia10]. **Diagonally** [BDdSM13]. **Diagrams** [BR15b]. **Diffeomorphic** [BG10b]. **Difference** [ACCD13, AP16b, Akr15, And13, ABS12, ABS15, BC12b, BCST19, BGN16, BJK10, CLL10, CLJ⁺16, CL18, CRR16, FO11, HZZ19, HO14, KL11, LZH18, LZZ18, LXZ18, LLN18, MLMS17, NV14, Rid16, RP13, RL15, SDKS13, SOG17, WBN16, WL11, WW11a, Wan15, nZzSwW11]. **Difference-Quadrature** [BJK10, HO14]. **Differences** [KB12]. **Differencing** [DJLQ19]. **Different** [TD13]. **Differentiable** [HHZ11]. **Differential** [AP16b, AHS16, BH17, BS18, Bla18, BCD⁺11, BMV12, BHX10, BK10, BRSV11, CFZ15, Cha12, CNBW17, CQR13b, CRR16, CH19, DSZ17, DER14, DHP13, FO13, GT19a, GR16, GL11, GL12, GL17, GO12, HS14, HZZ11, KSS13, LOX18, LR18a, LR14, Li10, LL15, LMY18, LM11a, Mao15, MZ14, Mas15a, Mas15b, MMJ⁺17, MBMS11, NSS19, NHNY17, OPW19, PS16, Rie14, RW17b, Röβ10, SV14, SZZ18, TYK11, TYK14, WBN16, WY13, WZ19, YKF18, YZ11, YG15, ZG12, ZZK15, ZZJ10, ZFX17, KTK17, WCF19]. **Differential-Algebraic** [LM11a, TYK11, TYK14]. **Differentiation** [AC10, BH12, GHL18]. **Diffraction** [Kal12, Nic17, WBL⁺15]. **Diffuse** [FW12a, Grü13]. **Diffusion** [ACCE10, ABS12, ABS15, AGK⁺11, BDS17a, BB12, BB13, BCCHV14, BG18, BG14b, BH19, CZ12, CF12, CD14, CSZ19, CPXZ19, CS10, DH13a, DDD⁺14, DJY14, DEM15, DDE15, DEV13, DTZ13, DLLT18, GPV13, GHM⁺18, HH14, HPS17, HK17, HJJ⁺13, HKL16, JP17, JLZ16, JN11, KHCR19, Kno10, Kop15, LMV13, LNR11, LS15, LX16, LXZ18, LLX19, LS13b, LYZZ18a, lLNS19, LM10, Luc11, MLMS17, MK18, MPSV18, Mur14, MM13b, MAF14, ORX14, SOG17, TD13, WW10b, WW10a, WYZ14, WSZ15, Wel11, XH14, ZLL⁺14, nZzSZ12, ZTRK15, ZLY16, ZX19, dFGAN10, BMRB19, CM10, KL11, LWZ19]. **Diffusion-Dispersion** [LS15]. **Diffusion-Reaction** [DDE15, GPV13, JN11, Kno10, LYZZ18a, Wel11, ZTRK15]. **Diffusion-Wave** [nZzSZ12]. **Diffusions** [LL17]. **Diffusive** [FSX13, GK10, JLQX14]. **Diffusivity** [CLJ⁺16, WXZ18]. **Digital** [Dic11]. **Dim** [Liu11]. **Dimension** [AC16, CS10, CS12b, FHW12, FS17, MSZW13, Owe19]. **Dimension-independent** [FHW12]. **Dimensional** [BG14a, BG18, BCM10, CHWG15, CSYZ15, CW16, DW12, DK14, GL13, GY16, Gos14, IPP13, JV15, Kaw19, KM12a, LD19, LZZ18, LY13, Mac10, MZ13, Mor16, OZ13, Rid16, SNSM13, SDKS13,

SW10, SDG16, TL15, YHX17, ZLL⁺14, ZS10b, nZzSZ12, ZWGB15, dVBD⁺18, BLFS17, CLJ⁺16, D'A12, GTW⁺12, KFJ16].

Dimensions

[ACG15, BRSV11, CCM10, CLL10, DH15b, FO11, GMM12, GM19, GB10, GN18b, JMO17, PH16, RG16, SY12, WW10a].

Dimer [ZD12]. **Diminishing** [ZS10b].

Dirac [ABSV11, BCJT16, CW19, CLY19, D'A12, KW14b, LS16]. **Direct**

[AKK⁺11, FKS14]. **Direction** [HY13, HY12, JJLW16, ILNS19, LYZZ18b, YH16, nZzSZ12].

Directions [LM11a]. **Directly** [FW13a].

Director [GR15]. **Dirichlet**

[BH11, CSZ19, CdTGGP18, ER18, GHM⁺18, QW19, SDKS13, SU12, WYZ14, XQ10].

Discontinuities [ARwS19]. **Discontinuity** [ZWGB15]. **Discontinuous**

[AR10a, ADM⁺15, ASV15, AH15, BGL17, BN10, BDN13, BFH14, BHX10, BTG12, BTDG13, CYZ11, CHZ17, CGJ13, CZZ14, CSYZ15, CSYZ18, CH16a, CH18b, CC13, CF12, CLX13, CS10, CGLM14, CK14, CKW13, CGS13c, CZ13, DG16, DLM13, DG13, DDE15, DD12, DGS13, DZZ19, EO14a, EGMP13, EV15, FW14, FLX16, FF14, GH15, GLV11, GMP15, GU10a, GU10b, GK10, GR19, HJS13, HW15, He19, HMP11, HP15, HK16, JP10, KS14, Kaw19, KAD19, KCL13, KHCR19, KS13, LLS18b, LH12, Liu11, LSZ18, Mac10, Mas13, MZ16, MSZW13, MJRK11, Moo19, MA18, MSS17, MBMS11, MM13b, MAF14, NSS19, NP16, NS10, Oh13, Ren15, Ren16, RW11, SW19, SS13b, SS14, TX19, TD15, VZ18b, WHIC10, WSZ15, XS12, XH14, XZwSW19, YS13, ZM16, ZS10a, ZG18, ZHA19, ZH15].

Discontinuous-Skeletal [DDE15].

Discrepancy [BO15, GWW12]. **Discrete** [AGK⁺11, BCDS17, BKM13, Bar13, BNS14, BCR16, Ben17, BCD⁺11, BKN13, BRSV11, CS14, CGS13a, CK17, CKK19, CFQ18, CM10, DG16, DH15a, DE13, FH10, FW12a, FKLL18, GG10a, HZZ11, HM14, Hül10,

JMO17, KM12a, KM12c, LV18, LS17, ILMZ19, LM13b, Mur14, NKK13, RWJG13, Ren15, Ren16, Tow15, WY19, WR12, Zhe17].

Discrete-Time [Mur14]. **Discretization**

[AD18, ACLW16, ABLV13, BLM10, BB12, BRY15, BG18, BF17, BNY18, BY12, Bré13, CS18a, CET⁺16, CH12, DLQW18, DEM15, DKG⁺14, DKGS16, EJK10, ER18, EWK13, FKS14, GH15, GW18, Gra15, HN11, HMP14, HPS13, HK16, JN11, Kay10, Kwo11, LR13, LS16, LL19, Nor15, Nor16, PF13, PH16, RZ18, Sch16, SW12, TD14, VZ19b, YB11, GPS16]. **Discretizations** [ASV15, BGN19, Bar14, BDN15, BLM11, CP13, CdTGGP18, Der12, DD12, EV15, ESV17, HP15, KLL16, LLMS17, LG11, LD19, LSZ11, MLMS17, MFD17, MS11, MPPS10, Mir16, SwS19, CK17].

Discretized [BB13, BG17, GMNS19, KLW16, LWW⁺15, ZX14]. **Discretizing**

[TT15]. **Disk** [RN17]. **Dislocation**

[CFM11]. **Dispersion**

[AGK⁺11, BBHS14, LS15, ZW11].

Displacement

[BSZZ13, CR12, RW11, WSS14].

Dissipation [ELM15, WL14]. **Dissipative**

[AC19, BLFS17, SMSF15]. **Dissipativity**

[WZ19]. **Distance** [GM17]. **Distances**

[Gra17, Sol18]. **Distributed**

[BCG15, BGyS18]. **Distribution**

[PBL15, Yam19]. **Distributionally** [Kou17].

Distributions [TT15]. **Div**

[CK10, CFZ15, CELR11, BPS11, CK11, Ku11a, Ku11b, LLS18b]. **div-curl** [BPS11].

Divergence [BFK16, DLTZ13, GN18b, KS14, KW16, LLMS17, ZZMC19].

Divergence-Conforming [KS14].

Divergence-Free

[DLTZ13, GN18b, KW16, ZZMC19, LLMS17].

Divisibility [GM17]. **Division** [DHRBR12].

Domain

[BN16, CHWG15, CLL10, CGHW11, CW13, CX13, DD12, DGGQ16, DW14, GH12, GX14, HJJ⁺13, HJKR16, KWB15, KS12,

LG19, Lee13, Lee15, LT13, LX14b, LCG⁺10, Tak13, TL15, WX18, WY11, YZ14, YLH18].

Domains [ANP17, BS16a, BGyS18, CdTGGP18, DGHP16, FHM16, GN17, GP16b, GP17, KHCR19, LMV13, LV16a, Liu13b, LO13a, Loi13, MH18, mXqW10, Zul15].

Dominance [Peñ07, Xia10]. **Dominated** [AKK14, CQR13a, CSZ19, DH13a, Der12, HL10, LH12]. **Dominating** [Owe19].

Double [BMRB19, DLTZ13].

Double-diffusion [BMRB19]. **Douglas** [BKSy17, BS15, GHY17, HY12].

Downwind [Ket11]. **Downwind-Biased** [Ket11]. **DP** [DGS13, GKR13, KLP10, KRR15, TL15].

DPG [CH18a, CDG14, DG11, DH13a, DGNS17, HP14, HK17]. **Drift** [BCCHV14, BG18, NSS19, XCLY19].

Drift-Diffusion [BCCHV14, BG18].

Driven [ACLW16, DKS16, DHP13]. **Drug** [TW18]. **Drum** [ZB15]. **Dual** [BLO18, BH19, PW12, SL15, WW11b].

Dual-parametric [SL15]. **Duality** [CM10, KM12a]. **Dumbbell** [LY12, SY12].

Dynamic [BBHJ15, CNSV16, DE11, HVC15].

Dynamical [Hül10, KLW16, PM14, WBN17]. **Dynamics** [AVZ15, AN10, CFM11, CCM10, Col10, DK13, DDD⁺14, EJ17, LCS15, Poe19, ZD12].

Eddy [FT17]. **Edge** [CWZ14, EG13, Wal14a, YZ17, ZW18].

Effective [AP18, FKS14, HMKV13, Owe19, WXZ18].

Effects [ANS15, BGN16, WY19].

Efficiency [DFS19, Pet10, Pet11]. **Efficient** [And13, CK17, CET⁺16, CGSW13, ESV17, GRT14, GL13, GLT⁺17, GTW⁺12, HMO19, Hu15, LZZ18, Liu13b, RBGS17, VH14, ZB15].

Ehrlich [SWWW12]. **Eigenfunction** [ZZY13]. **Eigenfunctions** [BDO18, CGL⁺10]. **Eigenpairs** [XZO19].

Eigenproblem [DLT13]. **Eigenvalue** [BSS10, BG19, BD16b, CZAL13, CG12a, CH12, DT17, DLT16, HMO19, KSU14, LO13a, NZ12, Ovt11, Sau10, SLY16, SU12, WX18, WNP14, YB11, YXL19, ZJB16, ZHZ⁺14]. **Eigenvalues** [BH11, BV16, BDO18, BMV12, BL18, CDM⁺17, GMNS19, SV14, SLY16, Sun11].

Eigenvectors [CDM⁺17]. **Eikonal** [FF14, LQB14]. **Einstein** [BDLV17, HMP14]. **Elastance** [RG16].

Elastic [BCL17, BGN19, DK14, GHM10, KP12, LY12, SY12]. **Elasticity** [BGN16, BBM13, BDS17b, BMcS10, BCS18, CR12, CH16a, GKR13, GG11, GMR15, Hu15, Kim11, MMR13, Nor15, OHBNX15, QD11, SSS11, SL15]. **Elastodynamics** [AL14]. **Electric** [BHH10].

Electromagnetic [CFNP18, CZ17, CH12, Cim12, GHM10, LMS13, YLH18].

Electromagnetics [IGVGF19]. **Electronic** [Bac13]. **Electrostatics** [IGVGF19].

Element [AP16a, AB17, AAEM15, ALM18, AR10a, AW10a, AABR13, AJ19, ABMV14, ABSV16, ABPV12, ASW10, BCGS10, BC12a, BCE14, BKSy17, BV10, BMS10, BM11, BET11, BCL16, BBDR12, BdSS13, BRY15, Bie11, BPP15, BCG15, BG19, BG14b, BDN13, BD16b, BDO18, BDS15, BRK14, BFK16, BTG12, BOS10, BLO18, BH19, CGS18, CWZ10, CYZ11, CK11, CHZ17, CGOT16, CGM16, CGH⁺10, CC18, CC19, CKP11, CG12a, CGR12, CPS13, CP15, CH16a, CS18b, CDNP18, CST13, CCL⁺14, CFNP18, CX10, CW17, CTZ18, CWZ14, CF17, D'A12, DER14, Dem10, DO12, DEM15, DFW15, DKS13, DGS13, DTZ13, DLTZ13, DLT13, DLT16, DAA13, DE13, EJK10, ERW14, Era12, Era13, Erv13, FW13a, FKMP13, Fei19, FH10, FW12a, FLZ17, FR14, FKLL18, GS19, GHM10, GL15, GY16, Gra15, GR16, Gra17].

Element [GLR18, GH10, GJOR18, Gud12, GNPY14, GP16a, GP16b, GP17, GN18a,

GB10, GL19, GLZ19, GSV17, GSR17, HLZ15, mHLZ16, HM17, HLM13, HR13, HH10b, HHZ11, HS13, HY18, HHX11, HKL16, IWY10, Ing11, JMN14, JS13, JLZ13, JLPZ14, JLZ16, JN11, KTK17, Kar18, KK10, Kas13, KCDQ15, Kaw19, KP10, Kim11, KSU14, KSS12, KSW14, KLS10, KLM11, KLM14, Krö19, Ku11a, KSS13, KWC10, KWC17, LMV13, LG11, LL11, LOX18, LV16a, LV16b, LV18, LX16, LWD17, LS17, Li18, Li19, LS13b, LLZ15, LYZZ18a, LYYM10, LSZ11, LMM⁺13, LWZ19, LL13, MC18, MZ13, MNQ13, MMR13, MW12, MNP12, MT13, NW19, NWZ17, OR14, ORX14, OHBNX15, OP12, OS16, ORB16, PW19, QTX15, QD11, Reu13, RW17a, RBGV13, SZ15, Sch11, SS13b, SS14, SU12, SV15, Wal14a, WYZ18, WZ12]. **Element** [WYZ14, WBL⁺15, Wel11, WW11b, WZ18, YDG10, YB11, YLH18, YG15, YZ17, ZZMC19, ZGD17, Zou18, dFGAN10, CK17]. **Elements** [ABW15, AC12, AC16, AGP17, BKS17, Bar12, BNS13, BBM13, BCLP10, BBHS14, BMS14c, BMS14b, BS16a, BEF10, BS16b, BHL17, CZ10a, CZ10b, CZ12, CQS12, DDLZ19, FN13, GMM12, GG11, GHSS19, GN18b, Hal16, HH10a, HJHUT14, Hu15, LLMS17, LL11, Lee13, Lee15, Mac10, MPSV18, Sau10, Ste11, VZ19a, WCH10, dVBD⁺18, dVLV18]. **ELLAM** [WW10b]. **Ellipsoidal** [RY18]. **Elliptic** [ABLV13, ADM⁺15, ASV15, ABSV11, AX13, AT16, ASW10, AKK14, BCDS17, BLM11, BPS12, Bie11, BDN13, BN11, BGyS18, BLO18, BE18, CZ10a, CFZ15, Cha12, CST13, CX10, Che10, CQR13a, CQR13b, Cim12, CQS12, CZ13, D'A12, DHH13, DS11, DG13, DW13, DL11, DLT13, ELS15, EES18, EST18, FW13b, FO11, Gal17, GHS18, GMNS19, Git13, GL19, GLZ19, HSB17, mHLZ16, HL10, HM16, JP10, Kaw19, KP10, KW14b, KL13, KSW14, KSS13, Kwa12, LH12, LJC17, LLZ15, LCY13, MLMS17, Mas13, MSS17, RW17b, Sau10, SVZ12, SSZ11, SSW13a, SSW13b, SS13b, SYY19, TZ13a, VZ18a, VZ18b, VZ19a, WHIC10, WZ12, WY13, Wan15, YB11, ZZY13, ZGD17]. **Embedded** [FW12b, KMR13, SK13]. **Embedding** [GKN⁺18]. **Embeddings** [KMU16]. **Empirical** [MMT16]. **Endpoint** [AR14]. **Energy** [AAEM15, BIT13, CHWG15, CLL10, Dem10, ERW14, EJS19, GMS18, KSW18, LW16, MB16, SWWW12, SY15, VL11, WW11a, ZHA19]. **Energy-[BIT13]**. **Energy-Based** [VL11, ZHA19]. **Energy-Conserved** [CHWG15, CLL10]. **Energy-Corrected** [ERW14]. **Energy-Minimization** [AAEM15]. **Energy-Preserving** [LW16, MB16]. **Energy-Stable** [KSW18]. **Engineering** [SS13a]. **Enhanced** [BMcS10, CDM13]. **Enhancement** [LTX13]. **Enhancing** [CCL⁺14, LR18a]. **Ensemble** [BSW18, CPXZ19, Fio18, GJS17, LW18, SS17a, HLT16]. **Ensemble-Proper** [GJS17]. **Entropy** [BDS12, CFMP13, CK16, FMT12, JP17, KMU16, LY12, LCS15, MM14, SCP18]. **Epitaxial** [LQZ17]. **Epitaxy** [QTX15, SWWW12]. **Equally** [JDZY16]. **Equation** [AP16a, AB17, AM17, ABSV16, ANP17, AT16, AAN11, AGK⁺11, AGP17, BCE14, BMK10, BGL17, BC12b, BCZ14, BC14, BCJT16, BCST19, BLWW13, BdBE17, BBK15, Bec11, BKS11, BHH10, BJ13, BD17, BC17a, CW19, CHP13, CC14, CLY19, CDM13, CLX13, CH16b, CW17, CHW19, CWYZ19, CLS13, CH18d, CH19, DGHP16, DG11, DGNS17, DLQW18, DEM15, DH11, DH13b, DTV15, DKS11, DW15, DJLQ19, DAA13, DK14, DKR15, EV10, FS14, FLX16, FJ17, FLZ17, FF14, Fis15, FL16, FSX13, FO11, FO13, FKLL18, GS19, Gao14, Gaz14, GHS14, GMS18, GK10, Ham19, Han13, HS14, HN11, HM17, HP14, HMP11, HSW17, HWZ17, HS13, HSZ18, IPP13, IGVGF19, IKS18, JWX14, JW13, JLPZ14, KZ15,

KOS19, KLS10, KLM11, KLM14, KP12, KST15, LMM16, LY11, LZZ18, LSW18, LN18, LW19, LM11a, LY12]. **Equation** [MK18, MS11, NKK13, NZ18, NW19, PLR11, PH16, Plo19, RG16, RN17, RW11, RSY12, RY18, SV10, SDKS13, SY12, Ste11, SOG17, WW11a, Wel11, WY11, WZ18, YZ14, YHX17, ZLL⁺14, nZzSwW11, nZzSZ12, ZG18, ZHA19, Zhe14, ZW13, ZX19, Zou18]. **Equation-Free** [SV10]. **Equations** [AP16b, ALM18, AC10, Akr15, AMK19, AGT18, AHS16, ACLW16, ADM17, ADM21, AF12, AH15, ABPV12, BCGS10, BH17, BLFS17, BMW19, BMO11, BM11, BG11, BCR16, BS18, BMS14a, BS14, BdSS13, BRY15, BDLV17, BORM18, BG18, BCJ19, Bla18, BPS11, BCL13, BMV12, BL18, BHX10, BC17b, BK10, BMRB19, BH19, CZ10a, CWZ10, CFZ15, CHWG15, CW18, CGOT16, CGM16, CZAL10, CZAL13, CZZ14, CSYZ15, CHL17, CSYZ18, CP13, Car13, CS18a, CGKMC19, CGS13b, CDNP18, CELR11, CCCS16, CCM10, Cha12, CNBW17, CLL10, Che10, CCWX11, CHYL11, CQR13a, CX13, CQR13b, CD14, CHJ19a, CHJ19b, CPXZ19, CS10, CGLM14, CW16, CQ17, CWZ14, CRR16, CY10, DHSW13, DKS16, DK13, DSZ17, DER14, DDD⁺14, DJY14, DCdL18, DKG⁺14, DKGS16, DP11, DP13, DP17, Dör12, DY16, DZZ19, DDLZ19, DHP13, ER18, ELS15]. **Equations** [EJS19, EO14a, EO14b, EWK13, ELN13, EGHL10, FT17, FW14, Gal17, GLS14, Gau15, GSS12, GLZ18, GG15, GTW⁺12, GR16, GNPY14, GP16a, GP17, GL11, GL12, GL17, GJS17, GLZ19, GO12, GSR17, HH14, HH13, HOV16, Hes15, Hla14, HP15, HS16, HZZ11, HFL12, HKL16, JV15, JLQX14, JS13, JP17, JLZ13, JW13, JLZ16, JLZ18, JN11, JN15, JMO17, Kas13, KK18b, KP10, Kno10, KM12a, Krö19, KSS13, KFJ16, KM12c, LLS16, LLS18a, LHM⁺16, LMO12, LOR11, LSBTS19, LOX18, LR18a, LR14, Li10, LT13,

LTX13, LGS14, LC15, LL15, LQT16, LWD17, LS17, LXZ18, LMY18, LR18b, LB13, LB16, LB19, lLzSsS10, lLLZ18, lLNS19, LM10, LMM⁺13, Liu13a, Liu13b, LSZ18, LWZ19, Log17, Luc11, LQB14, MC18, Mao15, MZ14, Mas15a, Mas15b, MST10, MMR13, MTKO17, MMJ⁺17, MBMS11, MM13b]. **Equations** [MAF14, NSS19, NHNY17, NV14, Nor16, OPW19, PL10, PW14, PS16, Poe19, PRX19, RSW17, RW17a, RW17b, Röß10, RL17, Sch16, SWG14, SS13b, SS14, SD19, SZZ18, Svä16, TV16, TX19, Tha13, TYK11, TD13, TYK14, TL15, VZ19b, Ver12, Wal10, Wal14b, WBN16, WW10b, WW10a, WZ12, WY13, WYZ14, WL14, WZ19, WCF19, WR11, WR12, WS18, XS12, XH14, XZwSW19, YKF18, YDG10, YS13, YB13, YZ11, YG15, ZG12, ZZY13, ZZK15, ZTRK15, ZLB16, ZLY16, ZZJ10, ZFX17, ZGD17, dTEJ18, dTEJ19]. **Equations-Continuous** [WR12]. **Equidistribution** [GH12]. **Equilibrated** [BFH14, CZ12]. **Equivalent** [SV10]. **Ergodic** [AVZ14, CL19, HSW17, HWZ17, Wan14]. **Erratum** [GL12, KLM14, KWC17, LLS18a, SDM18b]. **Erratum/Addendum** [GL12]. **Error** [ALS13, AP16a, AR10a, AC10, AGT18, AZC14, ANS15, ABLV13, ADM17, AKP14, ASW10, BG10a, BKM13, BB16, BC12b, BC14, BCST19, BMW19, BMO11, Bar14, Bea15, Bec11, BKT13, BNS13, BLM10, BBS16, BPS12, BG17, BDO18, BD19, BF17, BFH14, BES12, CZ10a, CK10, CZ10b, CYZ11, CK11, CZ12, CHZ17, CS13, CMS16, CC18, CC19, CKP11, CDG14, CM14, CK17, Cha12, CST13, CS12a, CET⁺16, CE18, CL18, CK14, CKK19, CZ13, CBHW13, DF12, DG13, Dic11, Die14, DEV13, DW15, DLT13, EJK10, EJS19, Era13, EV10, ESV17, FT17, Fis15, FW12b, GLS14, Gao14, Gau15, GLV11, GLMV16, Gra15, GS11, GP16a, GN18a, GLL11, He19, HL10, HR13, HS16,

HLS13, HH10b, HS13, HJWZ16, JL10, JLZ13, JLPZ14, JN11, KTK17, Kal12, KK18b].

Error [KLP14, KPK11, Kim11, KW14b, KL13, Kop15, Krö19, Ku11a, Ku11b, LOR11, LH12, LV13, LS13a, LGS14, LZ14, LS15, LSW18, LN18, lLzSsS10, lLLZ18, LYZ15, LSZ18, LYZZ18b, LA11a, MC18, MNP12, MT13, MPPS10, MT18, Mur14, NKK13, NW19, OR14, Ovt11, PW14, PVWW13, PW19, QTX15, RZ19, Sau10, SZ15, SW16, SW12, SNSM13, SX18, Sin14, Spa14, SV15, SOG17, SL15, TT15, WW13, WW10b, WL11, WSS14, WSZ15, WL16, Xia12, XS12, YDG10, Ye13, ZS10a, nZzSwW11, ZG12, ZZK15, ZLY16, ZWX13, Zhe14, ZW13, ADM21]. **Errors** [ASS16, CBHW13, Dem10, LTT13].

Escalator [BCS13, CGKMC19].

Essentially [CGS15, FMT12, HLY13].

Estimate [BMW19, BBS16, CK10, CS13, CMS16, CS12a, HS13, lLzSsS10, lLLZ18, MM14, TT15, WW10b, ZLY16]. **Estimates** [AC10, AGT18, ADM17, ADM21, AKK14, BCGS10, BB16, BC12b, BC14, BCST19, Bar14, BdBE17, BFRS16, Bea15, BG17, BDO18, BD19, BF17, CHZ17, CC18, CC19, CDM13, Cha12, CHW19, CK14, CKK19, DLT13, EJK10, Era13, EV15, ESV17, FT17, Fis15, FW12b, GL13, GLS14, Gao14, GLMV16, GP16a, GLL11, GLZ19, HL10, HLS13, JL10, JLZ13, Kal12, KW14b, Kop15, KP12, Krö19, Ku11a, Ku11b, KS12, LV13, LS13a, LGS14, LN18, LYZ15, LSZ18, Loi13, Luc11, MC18, MPPS10, MT18, Mur14, NKK13, NW19, OZ13, PW19, RZ19, Sau10, Spa14, WW13, WW10a, WSZ15, WL16, Wan16, XS12, YDG10, ZS10a, nZzSwW11, ZZK15, Zhe14]. **Estimating** [FJK13].

Estimation [AZC14, BS11, CBHW13, DHRBR12, EV10, GH10, GN18a, GRK18, KL13, Ovt11, SZ15, SW16, SNSM13].

Estimations [CYZ11, XWG10, Zha17].

Estimator [BG10a, BFH14, CZ12, Kim11].

Estimators [ABLV13, CZ10a, CZ10b, CK11, Ku11a].

Euclidean [BCG⁺10]. **Euler** [BF17, CR15, CR18, DKS16, DHP13, Gao14, KPK11, NSS19, NV14, PS16, Rie14, WL14].

Eulerian [ORX14, TX19, WW10a].

Evaluation [CGT15, Gar15, LO13a, Nic17].

Evans [HL15]. **Evolution** [AF12, BDS17a, BORM18, BMV12, BL18, CHL17, ELN13, GLMV16, HFE18, HH13, KK18b, Krö19, Moo19, PLR11, SW19, TW18].

Evolutionary [BHHS15, CLP12, JN11, JN15, LTT13, SZ13].

Evolutions [Bar14]. **Evolving** [DE13, LMV13, LOX18, LNR11, OR14, ORX14].

EWOD [FW13a]. **Exact** [Bea15, CF17, RT16, TT15]. **Exactness** [CS18b]. **Example** [BKS17]. **Enclosures** [WNPN14]. **Existence** [BCGS10, HNSV13].

Expansion [GR18, NS10, Wan16, ZZY13].

Expansions [ASW10, CI12, EGK13, Tow15, Xia12, ZWX13, ARYZ18]. **Experiments** [dTEJ18]. **Explicit** [Akr15, BR13, BEF10, CMS16, CM14, DP13, DP17, GSY16, GMS18, GO12, HMKV13, HKLN16, HPS13, HSZ18, HKL16, KLP14, LMV13, LQZ17, LZH18, LM11b, MS11, MM14, Sau10, SZZ18, SwS19, WSZ15, ZS10a, Zha17, ZSZ15].

Exponent [DAA13, KK18b]. **Exponential** [AR14, BC14, BJK16b, BDLV17, CM18, CS12b, DP11, DJLQ19, GG13, GT15, GT16, HLY13, LO13b, Mao15, MK18, OS13, SSW13b, WW10c]. **Exponentially** [KWH16]. **Exponentials** [Ye13].

Expressions [Sin14]. **Extended** [GG13, LK18, SW12]. **Extensible** [LY12, SY12]. **Extension** [GL19, Huy10, Kwo11, MH18]. **Extensions** [BM16, GU10b, IPP13]. **Exterior** [BHHS15, Li19, BD17]. **External** [FR16].

Extrapolation [DGY19, mHLZ16].

Extremal [GL11, GL12].

Factor [IGG18, Liu11]. **Factorization** [LQB14]. **Falk** [GMM12, Lee13, Lee15].

Families [AC16, HMO19]. **Family** [CLP12, Hu15, Zha13a, dVBD⁺18]. **Fanning** [LCJ⁺18]. **Far** [GHS14]. **Fast** [AGK⁺11, BLFS17, BKS11, CFM11, CFH13, CCWX11, CLJ⁺16, DKP10, JWX14, LL11, LQZ17, LQB14, Mir14, Mir19, PGvD12, Tow15, XZO19, ZX19, GS14]. **Fast-Marching** [Mir14, Mir19]. **Fatemi** [LM13a, WL11]. **FE** [CELR11, GRT14, LS14]. **Fekete** [BDSV10]. **FEM** [BPRR19, BCS18, CR12, DLM13, DFS19, DW15, FFP14, FT17, Gao14, GR19, LS13a, LW19, RW13, SL15, ZW13]. **FEMs** [CGS13a, CL15, GLS14, LS15, WSS14, WS18]. **FETI** [DGS13, GKR13, KLP10, KRR15, TL15]. **FETI-DP** [GKR13, KLP10, TL15]. **Feynman** [DLQW18]. **Fictitious** [KWB15, Tak13]. **Field** [ACD10, ACCD13, AP16b, ARYZ18, BLWW13, BO11, BHH10, CS14, CH12, DKG⁺14, EJK10, FR16, GHM10, GHS14, Han13, LQT16, SY15, SZZ18, WW11a]. **Field-of-Values** [BO11]. **Fields** [CFNP18, GKN⁺18, Oh13, PS19]. **Fifth** [Liu13b]. **Film** [NV14, SWWW12]. **Filon** [DGK13]. **Filter** [ELN13, SS17a]. **Filter-Based** [ELN13]. **Filtered** [FO13, LHM⁺16]. **Filtering** [Sel10, HLT16]. **Filters** [JKLZ17, NP16]. **Finance** [HFL12, WCF19, WR11]. **Financial** [CL18]. **Finding** [GS18, Pet10, Pet11]. **Finite** [AP16a, ACCD13, AP16b, AB17, AAEM15, ALM18, AR10a, AW10a, AABR13, ABW15, AJ19, AC12, And13, ACCE10, ABS12, ABS15, ABPV12, AC16, ASW10, AGP17, BCGS10, BC12a, BCE14, BKS17, BC12b, BCST19, BV10, Bar12, BMS10, BM11, BET11, BCL16, BBDR12, BBHS14, BdSS13, BRY15, BCCHV14, Bie11, BPP15, BCG15, BG19, BG14b, BDN13, BD16b, BDO18, BDS15, BRK14, BFK16, BOS10, BEF10, BS16b, BHL17, BLO18, BH19, CWZ10, CZ10b, CYZ11, CK11, CHZ17, CGOT16, CMS16, CGH⁺10, CZZ15, CKP11, CG12a, CGR12, CPS13, CP15, CH16a, CS18b, CDNP18, CK16, CST13, CCL⁺14, CFNP18, CLL10, CX10, Che10, CLJ⁺16, CW17, CTZ18, CL18, Cla13, CF17, CM10, CY10, D'A12, DER14, Dem10, DO12, DEM15, DILP18, DFW15, DKS13, DGS13, DTZ13, DLTZ13, DLT13]. **Finite** [DLT16, DAA13, DE13, EJK10, ERW14, Era12, Era13, EP16, Erv13, FW13a, FN13, Fei19, FH10, FW12a, FLZ17, FR14, FO11, FKLL18, GS19, GHM10, GMM12, GL15, GG10a, GY16, GG11, Gra15, GR16, Gra17, GLR18, GH10, GHSS19, GJOR18, Gud12, GNPY14, GP16a, GP16b, GP17, GN18a, GB10, GL19, GLZ19, GSV17, GSR17, GN18b, HH14, HLZ15, mHLZ16, HM17, HR13, HH10b, HHZ11, Hu15, HY18, HHX11, HO14, HKL16, IWY10, Ing11, JMN14, JS13, JLZ13, JLPZ14, JLZ16, JN11, KTK17, Kar18, KK10, Kas13, KCDQ15, Kaw19, KP10, Kim11, KSU14, KB12, KSS12, KSW14, KLS10, KLM11, KLM14, KM12a, Krö19, Ku11a, KST15, KSS13, KWC10, Kwa12, KWC17, KL11, LMV13, LMO12, LLMS17, LG11, LL11, LOX18, LNR11, LV16a, LV16b, LV18, LX16, LWD17, LS17, LZH18, LZZ18]. **Finite** [Li18, LXZ18, Li19, LS13b, LYZ15, LLZ15, LYZZ18a, LLN18, LR12, LYYM10, LSZ11, LMM⁺13, LWZ19, LL13, MC18, Mac10, MLMS17, MZ13, MNQ13, MMR13, MPSV18, MW12, MNP12, MT13, NW19, NWZ17, Nor15, Nor16, NFM18, OR14, ORX14, OHBNX15, OP12, OS16, ORB16, PW19, QTX15, QD11, Reu13, RW17a, Rid16, RBGV13, RP13, RL15, SS13a, Sau10, SZ15, Sch11, SDKS13, SS13b, SS14, Ste11, SV15, SOG17, Wal14a, WBN16, WYZ18, WL11, WW11a, WZ12, WYZ14, WBL⁺15, Wan15, WL16, WCH10, Wel11, WW11b, WZ18, YDG10, YB11, YLH18, YG15, ZGD17, Zou18, dFGAN10, CK17]. **Finite-Difference** [CLL10, WL11, WW11a]. **Finite-Element** [AAEM15].

Finite-Volume [SS13a].
Finite-Volume-Like [ZGD17]. **Finitely** [LY12, SY12]. **First** [BG11, BMS14c, BMS14b, Ber18, BF17, BEF10, CFZ15, CS14, CDNP18, DHSW13, GP16a, GP16b, Ku11a, Ku11b, LMM⁺13, Mir19, MS12, RBGV13, Sel10, SSS11, Zhe14, CK17]. **First-Order** [BG11, BMS14c, Ber18, BF17, BEF10, CFZ15, CDNP18, GP16b, Ku11a, Ku11b, LMM⁺13, MS12, SSS11, Zhe14, BMS14b, GP16a, CK17]. **Fitted** [LW16]. **Fixed** [CG17, CG18, HFL12, WN11]. **Fixed-Point** [WN11]. **Fixed-Sized** [CG17, CG18]. **Flames** [DDD⁺14]. **Flocking** [RT16]. **Floquet** [LZ17]. **Flow** [ABW15, BGN16, BGN19, Bea15, BBS16, BNY18, CWZ10, CGH⁺10, DMP13, DFS17, Erv13, FW12a, FLX16, GWW14, Grü13, GSR17, HT16, KK10, KS13, KSW18, KPR13, LS13a, LS14, LS15, MS12, RL15, SS13a, SZ13, VH14, WY11]. **Flows** [BNS14, BDN18, BdL10, CGS18, CHP10, CCD18, DKS13, FJK13, GS11, Ing11, LTT13, LLS18b, LL19, MW19, NV14, SWWW12, SY15, SX18, Tak13, WXZ18, ZZLB13]. **Fluid** [ACEL18, BCM10, BM16, CHP10, Col10, CHL12, GMM12, GGNV10, KSU14, KL15, OTB18, RGMP16, YHX17, Zha13a, ZHS16]. **Fluid-Fluid** [ACEL18, CHL12, ZHS16]. **Fluid-Solid** [GMM12, KSU14, YHX17]. **Fluid-Structure** [GGNV10, KL15, OTB18, RGMP16]. **Fluids** [DKS13, Grü13]. **Flux** [AWJ16, BJK16a, BCL16, BR13, CZ10a, EV10, IWY10, LWZ19, Ste13]. **Flux-Explicit** [BR13]. **Fluxes** [GPS16, MT11, ZGD17]. **Fokker** [CS18a, JMO17, LMM16, LY12, SY12]. **Following** [HL15]. **Föppl** [Bar17]. **Föppl-von** [Bar17]. **Force** [LM14b]. **Force-Based** [LM14b]. **Forchheimer** [RP13, RL15]. **Forcing** [LMM16]. **Form** [AH15, BCE14, BFK16, CDMP16, DZZ19, DK14, LOR11, LLN18, SS13b, Gal17]. **Format** [RU13]. **Forms** [BCD⁺11, BRSV11, CW17, Mir19]. **Formula** [AC10, ILLZ18, UU16]. **Formulae** [BIT13, Spa14]. **Formulas** [Akr15, BG14b, HNSV13]. **Formulation** [ABMV14, AH15, BBS16, BPP15, CGS15, Gal17, GLZ15, HP14, HJKR16, Hu15, KLP10, LG11, MMR13, MAF19, SY12, VV14, WS18, ZZLB13]. **Formulations** [BKN13, HJJ⁺13, Kal16]. **FOSLL*** [CFZ15]. **Foundation** [PW12]. **Fourier** [GS14, AHS14a, Car13, Che11b, DKP10, DDP17, DY16, FHM16, Huy10, JWX14, KOS19, KM12b, LQT16, MH18, RSW17, Yin09]. **Fourier-Spectral** [LQT16]. **Fourth** [BN11, BGGyS12, CD14, GSS12, lLzSsS10, Seg10, Wan15, ZX14, Zou18]. **Fourth-Order** [lLzSsS10, Wan15, ZX14]. **Fractional** [AB17, AM17, AU14, BH17, BJ19, CD14, CdTGGP18, DLQW18, GS11, HO14, HJWZ16, JLZ13, JLPZ14, JLZ16, Kar18, LMM16, LWD17, LLX19, LL19, lLNS19, MK18, MPSV18, MM13b, MAF14, NOS16, OS16, Plo19, RD17, SOG17, WY13, WYZ14, WZ19, XH14, YKF18, ZLL⁺14, nZzSZ12, ZZK15, ZDK18, ZW11, ZX19, CLJ⁺16]. **Fracture** [BOS10, DFS17, HJKR16, JL18]. **Fracture/Bulk** [DFS17]. **Fractured** [BNY18]. **Frame** [GS14, SDG16]. **Frames** [MH18]. **Framework** [BDdSM13, CH18a, DEV13, Ham19, LA11a, LA11b, SYY19, ZF16]. **Frank** [AAEM15]. **Fredholm** [ZB15]. **Free** [ALM18, ANS15, BK12, BPP15, Bur12, BHL17, DLTZ13, GN18b, KW16, Liu11, ORB16, PKK⁺15, SV10, ZZMC19, LLMS17]. **Freedom** [Wal14a]. **Frequency** [BS19, CLMV19, HLM13, LM11b]. **Friction** [DE11, Kas13]. **Friedrichs** [AKK14, BTDG13, SV14]. **Frobenius** [NFM18]. **Frog** [GLMV16]. **Frolov** [UU16]. **Front** [Sol18]. **Frozen** [CLY19]. **Full** [ACLW16, ABBM11, ER18, EWK13,

FHM16, Kol14, NKK13, SS13a]. **Fully** [AR10a, AW10b, BCDS17, BKM13, BMW19, BB13, CS14, CM14, CKK19, DG16, DFS17, DCdL18, DE13, FH10, FW12a, FKLL18, HT16, JMO17, LS17, SZ13, WY19].

Fully-Implicit [HT16]. **Function** [AKT14, BG14a, BG17, FHW12, GHSS19, HL15, MH18, NZ12, WW10c, Zha17].

Functional [BMV12, Gra15, Li10, LL15, LW⁺15, MZ14, Mas15a, Mas15b, MT16, WZ19, WSD15]. **Functionally** [LW16].

Functionals [GU10a, Hag11]. **Functions** [AR14, BH12, Die14, EST18, Gar15, GG13, GT19b, GL18, GG10b, GK13, HW15, He19, HP14, HSW17, HM14, HJWZ16, Huy10, LM13b, MM13a, MN11, PST15, PWZ13, Spa14, UU16, Ull17, XB13, Xia16, Yam19, ZWX13]. **Fundamental** [TZ13b]. **Further** [BSS10].

Galerkin

[AR10a, ADM⁺15, ASV15, ADM17, ADM21, AH15, BGL17, Bec11, BKT13, BB12, BB13, BY17, BdSS13, BPS12, BPRR19, BJ13, BN10, BFH14, BHX10, BTG12, BTDG13, CYZ11, CGJ13, CNSV16, CZZ14, CSYZ15, CSYZ18, CH16a, CH18b, CC13, CF12, CHYL11, CLX13, CS10, CGLM14, CK14, CKW13, CGS13c, CZ13, DHSW13, DG16, DLM13, DG13, DKG⁺14, DKGS16, DTV15, DD12, DGM⁺17, DGS13, DZZ19, ES16, EO14a, EGMP13, EV15, FW14, FLX16, FSX13, GH15, GLS14, GLV11, GMP15, GK10, GR19, HJS13, HMP11, HP15, HK16, HLS13, HZZ19, JP10, JWX14, JLZ16, JN15, KS14, Kaw19, KAD19, KCL13, KHCR19, KS13, LLS18b, LH12, LV16b, LV17, LV18, LMS13, LS13a, LGS14, LS15, LWD17, LYZZ18a, Liu11, LSZ18, Mas13, MZ16, MS11, MNP12, MSZW13, MJRK11, Mir18, MT18]. **Galerkin** [Moo19, MA18, MSS17, MBMS11, MM13b, MAF14, NP16, Ren15, Ren16, RW11, SW19, SPH18, SY12, SS13b, SS14, SU12, TV16, TX19, TD15, VZ18b, WHIC10,

WSZ15, WS18, XS12, XH14, XZwSW19, YS13, YG15, ZM16, ZS10a, ZZK15, ZG18, ZDK18, ZHA19, dFGAN10].

Galerkin-Mixed [LS13a].

Galerkin/Strang [EO14a]. **Game** [CS14].

Games [ACD10, ACCD13, AP16b]. **GARK**

[San19]. **Gas** [CCM10]. **Gauge**

[CH12, WS18]. **Gauss** [BIT13, Che11a, CS12b, CWZ14, PR14, SWG14, Spa14, Wei19, Xia12, XB13, Xu11, YZ17, ZWX13].

Gauss-Type [Xia12]. **Gaussian**

[ADGP16, CLY19, EST18, FHW12, GH10, Hag11, Zhe14]. **Gaussians** [Bac13]. **Gaver**

[Kuz13]. **GC** [FS17]. **Gegenbauer**

[Wan16, ZWX13]. **Gel** [FH10]. **General**

[ACCE10, BJS13, CGT15, CdTGGP18,

DDE15, Gra15, Grü13, Jin11, LMM16, Loi13, MK18, MM13a, OHBNX15, OZ13, Pet10, Pet11, Ste13, WCH10, Wil14, Zul15].

Generalization [Kno10]. **Generalized**

[CHP10, CFM11, CFH13, CH18c, ER18, GR18, HJWZ16, KCDQ15, MMT16, MNQ13, SG15, mXqW10, ZLB16].

Generalized-Structure [SG15].

Generalizing [Goc16]. **Generating**

[HSW17]. **Generation** [GH12]. **Generator**

[FJK13]. **Genetic** [XCLY19]. **Genuinely**

[MT11, ZS10b]. **Geodesics**

[LCJ⁺18, MM16]. **Geometric**

[JKK⁺13, KK18a, Krö19, Ney13, PS16, SSW13a, ZJB16]. **Geometrically** [BNP10].

Geometries [FKS14, Tak13]. **Geophysics**

[CFNP18]. **Gilbert** [GSR17]. **Ginzburg**

[BMO11, GLS14, WS18]. **Give** [GSS12].

Global [ABBM11, BCGS10, CLP12, DK13,

Kol14, LV17, Li18, Poe19, Pot16]. **Globally**

[Mor16]. **GMRes** [HDVV10]. **Goal**

[BET11, CK11, FPvdZ16, KAD19].

Goal-Oriented

[CK11, FPvdZ16, KAD19, BET11].

Godunov [CS13, Col10, Gos14]. **Good**

[MZ14]. **Gordon** [BS19, BCZ14]. **Governed**

[CHYL11]. **Grad** [CELR11]. **Grad-Div**

[CELR11]. **Graddiv** [DLT16]. **Graded**

[SOG17, Mor16]. **Gradient** [AD18, FLZ17, FGS14, GLT⁺17, HM16, HZZ11, LV17, LS14, LJC17, LL19, LX17, MM14, Reu13, SWWW12, SX18, VH14, WCH10, ZJB16]. **Gradient-type** [FLZ17]. **Gradients** [BC10]. **Grading** [ABSV11]. **Grained** [TT10]. **Gram** [ADGP14]. **Graph** [BCKZ13]. **Graphene** [KK18a]. **Graphs** [BCKZ13, HFE18]. **Grating** [WBL⁺15]. **Gratings** [Kal12]. **Gravity** [HT16]. **Grid** [JLLO19, KFJ16, PF13, PH16, RL15, YB11, ZWGB15, ZHZ⁺14]. **Grids** [AP16c, BG18, CH12, FJ17, HHZ11, LR18b, Mir14, Mir19, RL17, SVZ12, Ste13, ZX14]. **Grönwall** [ILMZ19]. **Gross** [HM17]. **Ground** [HMP14]. **Groundwater** [LTT13]. **Group** [RBGV13]. **Growing** [CG17, CG18]. **Growth** [CHP10, LQZ17]. **GSVD** [Goc16]. **Guaranteed** [CDM⁺17, ESV17, Kim11, YXL19]. **Guides** [DS18]. **Guiding** [PKK⁺15].

H [LLS18b]. **Hamilton** [GS19, HFL12, JS13, SS14, WR11]. **Hamiltonian** [KK18a, LW16, MB16]. **Hammerstein** [YB13]. **Hammerstein-Type** [YB13]. **Hand** [ABSV11, KW14b]. **Handling** [MO14]. **Hanging** [AR10a, BKS17]. **Hankel** [Tow15]. **Hard** [Fou11, KWB15]. **Hardening** [BMR12]. **Hardy** [BO16, Hal16]. **Harmonic** [CZ10c, CW17, FW14, GSR17, HOV16, Kwo11]. **HDG** [CSZ19, CPXZ19, CQS12, ELS15, GHM⁺18, LSBTS19]. **Heat** [BD17, EV10, GSR17, HLS13, NKK13]. **Height** [Zha17]. **Hele** [FW12a, FLX16]. **Helicity** [LOR11]. **Helmholtz** [CLX13, CX13, CH18c, DW15, GHS14, Hal16, Han13, HMP11, KZ15, LW19, MS11, PH16, SZ15, WZ18, ZW13]. **Hemivariational** [BBHJ15, HSB17]. **Hemodynamics** [RGMP16]. **Hermite** [Arà13, CW18, DILP18, JKK⁺13, LY13, MM10, Moo16, Wei19, mXqW10]. **Hermite-Spectral** [CW18]. **Hessian** [Che11a, KH14]. **Heston** [Zhe17]. **Heterogeneous** [AP16a, AX13, HJS13, HOV16, KS13, Mac15]. **Heuristic** [JL10, LY11]. **Hexahedra** [IWY10]. **HFES** [Zha17]. **Hidden** [AZC14, HJS19]. **Hierarchical** [ABLV13, XZO19]. **High** [AVZ14, AP16c, ABW15, AJ19, ADM⁺15, BBMZ19, BS19, BDLV17, BDS17b, BE18, CCCS16, CDMP16, Che10, CLX13, CW16, DHS17, DW15, DH15b, ESV17, FMT12, GLR18, HLM13, HSW17, KW16, LLS16, LLS18a, Li10, LXZ18, LW19, LM11b, LY13, LQB14, NR12, Nic17, Pet10, Pet11, PH16, RWJG13, SW10, SDG16, Tha13, WL16, WZ18, XS12, Yam19, ZS10b, ZWGB15, Zha17, ZW13, ZX19, ZGD17, ZH15]. **High-Accuracy** [AP16c]. **High-Dimensional** [LY13, SW10, SDG16, ZWGB15]. **High-Order** [BDS17b, BE18, CDMP16, DH15b, ESV17, GLR18, KW16, LLS16, LLS18a, LQB14, Nic17, RWJG13, Tha13, Zha17, FMT12]. **High-Plasma** [BS19]. **Higher** [BMS14b, BKN13, BD16b, CC14, DKG⁺14, DKGS16, DW15, DKR15, FS17, FO11, GL13, GT15, GT16, GR16, GL19, Jen11, Kwa12, RW13, Sch11]. **Higher-Dimensional** [GL13]. **Higher-Order** [BKN13, BD16b, GT15, GT16, Sch11, BMS14b]. **Highest** [SDKS13]. **Highest-Order** [SDKS13]. **Highly** [CLMV19, DGK13, Gra17, SZ15, SVZ12]. **Hilbert** [GRZ15, HS15, RD17, WNPN14, XWG10]. **Hill** [JZ12]. **Hilliard** [DFW15, KLM11, KLM14, AM17, ABSV16, BMS14a, BGGyS12, CDMP16, CWYZ19, FW12a, FLX16, FKLL18]. **HJB** [WR11, WR12]. **HLL** [WL14]. **HMM** [Bré13]. **Hodge** [CW17, LS16]. **Hölder** [JL18]. **Holes** [BK12]. **Homeomorphic**

[BG10b]. **Homogeneous** [BKS11, ZG18].
Homogenization
 [AX13, ELS15, GHV18, SDM18a, SDM18b].
Homogenization-Based [ELS15].
Homotopy [JDZY16]. **Hood**
 [CELR11, LL11]. **hp** [Bin18, QD11].
hp-Adaptivity [Bin18]. **hp-Finite** [QD11].
Humid [TW17]. **Hybrid**
 [AHPV13, BDS17b, BRK14, BFK16, BE18,
 CDMP16, HT16, JP10, LLS18b, LMM⁺13,
 LM14b, LQB14, WX18, WY11].
Hybrid-Mixed [AHPV13]. **Hybridizable**
 [CLX13, CCF14, CGS13c, CZ13, GH15,
 KHCR19]. **Hybridization** [CGL⁺10].
Hybridized [RW17a].
Hybridized/Interface [RW17a].
Hydrostatic [CN17, GG15]. **Hyperbolic**
 [BBHJ15, BR13, BPR17, BCL13, CZZ14,
 CSYZ15, CSYZ18, CFMP13, CS10, Cla13,
 DKP10, GMP15, GP16b, HLY13, Käm13,
 LAFS16, LSZ18, LY13, Mac10, MM14,
 MA18, NR12, SW10, TX19, XZwSW19,
 YS13, You17, ZM16, ZH15]. **Hypersingular**
 [HP14]. **Hyperspherical** [ZWGB15].
Hypersurfaces [DHS17]. **Hypoelliptic**
 [RSW17].

Ideal [CK16, Wu18, XZ18]. **Identifying**
 [CLJ⁺16]. **II**
 [ADGP16, BB13, BES12, CG18, GHM⁺18,
 GT16, LR16, LB16, LA11b, Mas15b, MT11,
 SSW13b, VZ19a, You17, ZW13, dTEJ18].
III [BCL13, VZ18b]. **III**
 [KWH16, MRL14, MT16, Nov17]. **Ill-Posed**
 [KWH16, MRL14, MT16, Nov17]. **Image**
 [LM13a, LG11, WL11, ZW18, ZCY12].
Imaging [AKK⁺11, ABGJ13, FKS14].
IMEX [BR13, BPR17, JLQX14, KTK17,
 WCF19, RSSZ17]. **IMEX-Time** [KTK17].
Immersed [Bea15, BCG15, BP10, GL19,
 LLZ15, LM13b, LM14a, RL13].
Immunology [Luc11]. **Impedance** [Han11].
Implementations [Mac15]. **Implicit**
 [Akr15, Bar14, BDN18, BMS14a, CCM10,
 CCKW15, DKS13, DP13, DP17, GR19,
 HT16, HPS13, HP15, HS16, HSZ18, LMV13,
 Lau17, LQT16, ILNS19, Rie14, SS13a,
 WSZ15, nZzSZ12, ZSZ15].
Implicit-Explicit
 [Akr15, DP13, HPS13, HSZ18, ZSZ15].
Implicitly [DHS17]. **Imposed** [QD11].
Imposition [Bur12]. **Improved**
 [DFS19, HR13, LXY13, SSS11]. **Improving**
 [BC17a, GR19]. **Impulse** [AF16].
Impulsive [HW14, KWH16]. **Inclusion**
 [BH11]. **Inclusions** [Han11, Rie14].
Incompressibility [Fis15]. **Incompressible**
 [ALM18, ABW15, BdSS13, BCM10, CWZ10,
 CHP10, CP13, CHP13, CCD18, CW16,
 CQ17, DKS13, GKR13, GWW14, Grü13,
 GS11, KS13, KP12, LLS18b, LSBTS19,
 LT13, LS13a, Log17, OHBNX15, PRX19,
 Rid16, SY15, TL15, YDG10]. **Increasing**
 [MJRK11]. **Indefinite**
 [BH19, CX10, FW14, SZ15]. **Independence**
 [Mor16]. **Independent** [Bar14, DEM15,
 HJHUT14, JLLO19, MPPS10, FHW12].
Index [DFS19]. **Inequalities**
 [AD18, CFQ18, DH15a, GU14, GG10a,
 HSW13, HSB17, KTK17, KSW14, KY18,
 WHIC10, You17]. **Inequality**
 [AKK14, BBHJ15, ILMZ19, MPPS10, TW17].
Inexact [Jin15, Kay10, LK16, SYY19]. **Inf**
 [GSR17, GN18b]. **Inf-Sup** [GSR17, GN18b].
Infinite [BG14a, Hal16, LL15, NA15].
Infinite-Dimensional [BG14a].
Infinitesimal [FJK13, San19]. **Influence**
 [TW18]. **Inhomogeneous**
 [FR17, Kal12, WYZ14]. **Initial**
 [AMK19, CM18, KOS19, WCF19, ZZK15].
Inner [Ket19]. **Inner-Product** [Ket19].
Input [CQR13b, DMP13, ZG12, Zha17].
Inputs [DKG⁺14]. **Instability** [NT16].
Integer [Rat16]. **Integral**
 [AU14, BHHS15, BHH10, BS11, CCWX11,
 CGS15, HP14, IGVG19, JWX14, LTX13,
 LB13, LB16, LB19, LYM10, RG16, RN17,
 SWG14, Wei19, YB13, YHX17, ZLB16].

Integral-Algebraic [LB13, LB16].
Integrals [CS12b, DGK13, DHS17, HKL19].
Integrands [GSY16]. **Integrating** [CM18, IGG18]. **Integration** [AW10a, ACSW10, Bac13, BG14a, Bla18, Dic11, DILP18, Die14, FS11, FJK13, GHS18, HVC15, HJWZ16, LLS16, LL15, LOV15, LVW18, MKW14, MZ14, RWJG13, Ull17, Xu11, LLS18a]. **Integrator** [BCZ14, BC14, BCJT16, KOS19].
Integrators [ASS16, BS19, BDLV17, BRO10, BIT13, CW19, Gau15, GG13, GT15, GT16, MS14, MB16, SMSF15]. **Integro** [BJK10, CRR16, KTK17, MBMS11, WCF19, YG15, ZFX17]. **Integro-Differential** [CRR16, MBMS11, YG15, ZFX17, KTK17, WCF19]. **Integro-PDE** [BJK10].
Integrodifference [DK13, Poe19].
Integrodifferential [HN11]. **Interaction** [ACEL18, BM16, CHL12, GHM10, GMM12, GGNV10, KSU14, KL15, OTB18, YHX17, ZHS16]. **Interactions** [LCS15, ZG18].
Interconnected [RZ19]. **Interest** [CCL⁺14]. **Interface** [Bea15, Ber18, BP10, BE18, CZ10b, CYZ11, CHZ17, CGH⁺10, Cim12, DGGQ16, DLT16, EES18, FW13a, FW12a, FR14, Grü13, GL19, KWC10, KWC17, Lau17, LJC17, LLZ15, Log17, LM14b, Mas13, PF13, RW17a, SZ13, WW13, Wel11, ZF16]. **Interfaces** [BCL13, GPV13, OZ13]. **Interfacial** [Gra15]. **Interferometry** [ABGJ13].
Interior [ASW10, BY17, BFH14, BN11, BGGyS12, BSZZ13, BGSZ17, BGyS18, DLM13, DP12, FLX16, GMR15, GLZ19, KS14, LV17, MSS17, VZ18b, WW13].
Internal [AKK⁺11, KLP14]. **Interpolants** [Arà13, KB12]. **Interpolation** [ACSW10, AT17, DW14, FS17, FW12b, GK13, HLY13, JKK⁺13, JDZY16, LA11a, MMT16, PGvD12, Ran13, WMI10, Xia16, XZ18, Zha13b]. **Interpolatory** [MM10].
Interval [Hla14, LL15]. **Intervals** [LM11a].
Intrinsic [PW12]. **Invariant** [AVZ14, CH12, GP16b, GP17, LMY18].
Invariants [BIT13].
Invariants-Preserving [BIT13]. **Inverse** [BLRX15, BCL17, Ben17, BD17, BBE11, BES12, Cim12, CDS10, DS11, HDVV10, HW14, JLLW16, Jin11, Kal16, KWH16, LSW18, MT16, SS17a, SLY16, SDG16, YB11, ZJB16, ZW11]. **Inverses** [XWG10].
Inversion [BSW18]. **Irregular** [DW13].
Isaacs [BCJ19]. **Isogeometric** [BCPS12, BRSV11, DGM⁺17, HT17, Moo19].
Isolated [LZ12, LZ14]. **Isometries** [Bar13].
Isoparametric [CQS12]. **Isotropic** [EWK13]. **Iteration** [AF16, BR15a, HFL12, Jin15, MRL14, Ney13, PKK⁺15]. **Iterations** [PRX19, WN11]. **Iterative** [Bar12, CW19, DW12, GLZ15, HK16, NA15, PL10, PBL15, Sun11, Wan15, ZCY12].
Iteratively [LXY13].
Jacobi [GS19, HFL12, JS13, SS14, WR11, CS12b, GB10, HJWZ16, LR12, ZWX13].
Joseph [CGH⁺10, SZ13]. **Jump** [Eng15, KL11, WSD15]. **Jump-diffusion** [KL11]. **Jump-Sparse** [WSD15].
Kac [DLQW18]. **Kaczmarz** [MRL14].
Kalman [BSW18, HLT16, SS17a]. **Kármán** [Bar17]. **KdV** [AGK⁺11]. **Kernel** [BH17, CLS18, FHN⁺13, GW18, GRZ15, HN11, Mir18, RD17]. **Kernel-Based** [GW18]. **Kernelized** [RD17]. **Kernels** [EJ17, FHW12, FW12b, YG15].
Kinematically [BM16]. **Kinetic** [AKP14, AN10, DP11, DP13, DP17, JLQX14, LLS16, LLS18a, LHM⁺16, LM10, RT16].
Kinetics [CE18, Eng15, FS11]. **Kirchhoff** [Bar13, BSZZ13, BGSZ17, Gud12, HHX11, RZ18]. **Klein** [BCZ14, BS19]. **Kohn** [LWW⁺15]. **Kolmogorov** [CS18a, RSW17].
Korteweg [DKR15, FS14, NV14]. **Krause** [BO16]. **Krylov** [DKS11, GT19a, GG13, GG17, HS15, MN11, SV10, SD19]. **Kutta** [BR13, BPR17, BEF10, CH16b, CHJ19b,

CCKW15, DP11, DP13, HMKV13, HPS13, HP15, IGG18, Kay10, KGM11, KMR13, KLP14, Ket19, Li10, LL15, MST11, Röß10, SG15, SwS19, TYK14, XZwSW19, ZS10a, ZFX17, ZSZ15].

L1 [ILLZ18]. **Lag** [HJS19]. **Lagrange** [BB12, BB13, BdSS13, BCG15, CK17, DCdL18, GMM12, GNPY14, GP16a, Loi13, MW12, Tak13, ZCY12]. **Lagrange-Projection-Type** [DCdL18]. **Lagrangian** [AGT18, BO11, CS14, CDM13, CGLY17, FJ17, PKK⁺15, RSY12, RY18, TX19, WW10a]. **Lagrangian-Based** [AGT18]. **Lanczos** [IKS18, Ye13]. **Landau** [BMO11, GLS14, Gao14, GSR17, WS18]. **Landweber** [Jin15, MRL14]. **Langevin** [AVZ15, HSW17]. **Laplace** [AB17, BDO18, BD19, CDM⁺17, GT19b, LR15, LR16, LLS13, RN17, Sch16, WCH10]. **Laplacian** [DLM13, BJ19, BCKZ13, BDS15, CW17, CdTGGP18, GMNS19, HFE18, HO14, LO13a, LCG⁺10, SU12, ZDK18]. **Laplacians** [GJOR18]. **Large** [BH11, Bar13, FW14, GO12, HJS19, JLLO19, LMS13, LAFS16]. **Large-Scale** [JLLO19]. **Larman** [HNSV13]. **Lattice** [AKP14, DGY19, Mir14, TT10]. **Lattices** [ALS13, Käm13, Rat16]. **Lauricella** [DH11, DTV15]. **Lavrentiev** [Pla17]. **Law** [DKS13, YZ17]. **Laws** [ACG15, AHZ18, CS13, CMS16, CWZ14, DG16, DHL17, FMT12, FS16, FLM18, GPS16, GMP15, GU10a, GU10b, Gos14, HLY13, LY11, LAFS16, MZ16, MSZW13, MT11, Ren15, Ren16, SNSM13, Sol18, ZM16, ZS10b, ZS10a, ZH15]. **Layer** [CZ10c, CW13, CZ17, DGHP16, DK14, ES19, EGK13, LW19]. **Layered** [CZ10c]. **Layers** [Kal12]. **Leading** [LM11a]. **Leak** [Kas13]. **Leap** [GLMV16, GRK18]. **Leap-Frog** [GLMV16]. **Leaping** [AHS14b, Rat16]. **Learning** [PM14]. **Least** [ACSW12, ACSW14, BCG⁺10, BMS14c,

BMS14b, Ber18, BPS11, BCS18, CK10, CK11, CP15, CS18b, CGT15, CNBW17, CCL⁺14, CLS18, HDVV10, Hes15, IKP11, Ku11a, Ku11b, LXY13, LMM⁺13, Mig19, MS12, ORU18, PST15, SPH18, SSS11, Wan14].

Least-Squares

[BCG⁺10, Ber18, BPS11, BCS18, CK11, CS18b, CGT15, CCL⁺14, CLS18, Ku11a, Ku11b, Mig19, CK10, PST15]. **Leffler** [Gar15, MN11, RD17]. **Legendre** [CHYL11, LMS13, SWG14]. **Lehmann** [Ovt11]. **Leja** [BDSV10]. **Level** [CKW13, Gra17, GLR18, Han13, HMP14, LC15, Reu13, WX18]. **Levels** [AR10a]. **Lévy** [DKS16, DHP13]. **Lie** [AVZ15, OPW19]. **Lifshitz** [GSR17, Gao14]. **Like** [DKS13, MO14, SLY16, ZGD17, LD19]. **Limit** [AAN11, BCZ14, BCJT16, BMR12, BCCHV14, CW19, Car13, CCF14, GK10, HWZ17, JW13, LM10]. **Limited** [BH12, Die14, XB13, Xia16, XA16]. **Limited-Memory** [XA16]. **Linear** [AR10b, AT16, BR15a, BKT13, BBM13, BDdSM13, BDSV10, BMV12, BL18, BGGyS12, BCS18, BC17b, BK10, BEF10, CM18, CZZ14, CC18, CC19, CR12, CH16a, Cha14, CS10, Cim12, CLS13, CBHW13, CvN10, DEM15, DP17, DP12, Gal17, GKR13, GT15, GT16, GG11, GK13, HKLN16, HY13, HL10, Hla14, HP15, HS16, Hu15, HKL16, JLQX14, JML13, JLLW16, Kim11, KB12, KLS10, LM13a, LHM⁺16, LD19, LH12, lLzSsS10, lLLZ18, LM10, LSZ18, LYZZ18b, MST11, MNP12, Mor16, Nor15, Nov17, OHBNX15, QD11, SW16, Seg10, SSS11, TX19, TYK11, TD13, TYK14, Wan15, WCH10, XZwSW19, YS13, YH16, ZTRK15, ZD10, Zou18, EWK13, NW19, WZ12]. **Linear-Quadratic** [HL10, LH12, SW16]. **Linearized** [BO11, GLS14, Gao14, GU10a, GU10b, LSBTS19, LS14]. **Linearly** [KSW18, PC16]. **Lines** [CCCS16, DG16, DDP17]. **Liouville** [WY11]. **Lipschitz** [CGLY17, CH19, TZ13b].

Liquid [AAEM15, GR15, NWZ17]. **LL*** [CFZ15]. **LLG** [FT17]. **Lloyd** [BR15b]. **Lobatto** [Xu11]. **Local** [ASS16, ABPV12, BV10, BCL16, BDS12, BS16b, CK11, CEM13, CX10, CS10, Dem10, DL11, DLLT18, DLT13, EGK13, GHS18, GWW14, GMS18, GB10, HY13, HL10, Kno10, KS12, LH12, LM13b, RU13, WSZ15, XS12, ZGD17, dTEJ18, dTEJ19, Mor16, ASW10]. **Local-Conserving** [ZGD17]. **Localization** [GMNS19]. **Localized** [FHN⁺13]. **Locally** [AP18, CS13, ESV17, FR14, HS16, TZ13b]. **Locating** [Han11]. **Location** [BR15b]. **Locking** [ALM18, BMcS10, ORB16, Yi17]. **Locking-Free** [ALM18, ORB16]. **Logarithmic** [BCST19]. **Long** [AVZ15, AP16a, AP18, BCGS10, BCR16, BRO10, CGSW13, CW13, FJK13, GTW⁺12, LTT13, WN18]. **Long-Run** [BRO10]. **Long-Term** [BCGS10, FJK13, WN18]. **Long-Time** [CGSW13, CW13]. **Low** [AZC14, BD16a, BO15, BS19, CH16a, GHM⁺18, K LW16, OPW19, RW11]. **Low-BS19**. **Low-Memory** [AZC14]. **Low-Order** [CH16a]. **Low-Rank** [BD16a, KLW16, OPW19]. **Lower** [GY16, HS13]. **Lowest** [BMS14c, CH18b, HHZ11, Li18]. **Lowest-Order** [BMS14c, CH18b, Li18]. **Lumping** [RW17b]. **Lyapunov** [DKS11, SMSF15]. **Lyapunov-Type** [SMSF15].

MAC [EGHL10, RL17]. **Macro** [DSZ17]. **Magnetic** [FR16]. **Magnetized** [FR17]. **Magnetohydrodynamics** [Rid16, Wu18]. **Magnetostatic** [RBGV13]. **Magnetostatics** [dVBD⁺18]. **Magnus** [IKS18]. **Malliavin** [Yam19]. **Manakov** [Gaz14]. **Manifold** [GY16, PM14]. **Manifolds** [BGN19, LCJ⁺18, MGGJ13, Moo16]. **Many** [EST18]. **Map** [GSR17]. **Mapped** [AP16c].

Mapping [ZF16, Zul15]. **Mappings** [NA15]. **Maps** [KW14a, MM16]. **Marching** [CFM11, CFH13, Mir14, Mir19, WSZ15]. **Marker** [LR18b]. **Marking** [BET11, CNSV16, CR17]. **Markov** [And13, AZC14, HJS19, JML13, Rat16, WP19]. **Markovian** [LMYY18, NHNY17]. **MARS** [ZF16]. **Maruyama** [NSS19, PS16]. **Mass** [AJ19, CGJ13, DE11, FN13, FS11, GWW14, Grü13, LR13, NR12, RW17b]. **Mass-Corrections** [GWW14]. **Mass-Preserving** [NR12]. **Matched** [CZ10c, CW13, DK14, ES19, Kal12, LW19]. **Matching** [BCKZ13, MT16]. **Material** [BK12, Cim12]. **Materials** [CZAL10, HLS13, KP12, LCYC15]. **Mathematical** [ABIR19, YLH18, ZD10]. **Matrices** [AF16, CS11, DT17, MV14, WL14]. **Matrix** [AJ19, BR15a, BRD15, Che11a, CD12, GW18, GL17, MV14, MN11, OPW19, WW10c, Ye13]. **Matrix-Valued** [GW18]. **Maximal** [HMKV13, KLL16, LV18, LS17]. **Maximum** [Cla13, DL11, DJLQ19, GNPY14, KL13, Kop15, Luc11, Mir16, Ran13, WZ12]. **Maximum-Norm** [Kop15, Luc11]. **Maxisets** [HW17]. **Maxwell** [BC12a, BG19, CHWG15, CZAL10, CLL10, CHJ19a, CHJ19b, CGLM14, CWZ14, DDLZ19, EJS19, FW14, HOV16, HP15, HS16, MC18, Ver12, YZ17, You17, ZHZ⁺14]. **McKean** [BS18]. **Mean** [ACD10, ACCD13, AP16b, CS14, CHJ19a, HLZ15, SZZ18, TZ13b, VH14]. **Mean-Field** [SZZ18]. **Mean-Square** [CHJ19a, TZ13b]. **Measure** [AVZ14, BBE11, BES12, D'A12, DLQW18, Kou17, LMYY18]. **Measure-Theoretic** [BBE11]. **Measures** [CGKMC19, MST10]. **Media** [AP18, BNY18, BMRB19, CZAL13, CZ10c, DAA13, IGVGF19, Kal12, KS13, LS13a, RL15, SS13a, WSS14]. **Medium** [CZ17, KPR13, LS15, Plo19, dTEJ18, dTEJ19]. **Membranes** [CGJ13]. **Memory**

[AZC14, XA16]. **Mesh** [ABSV11, BNP10, BY12, Era13, GH12, HJHUT14, KH14, KAD19, LA11a, LA11b, VH14].

Mesh-Independent [HJHUT14]. **Meshes** [AR10a, ACCE10, ABMV14, ABSV16, BMW19, BCL16, BLM10, BLM11, CC18, CFH13, CK16, CFNP18, CDGQ10, DER14, DO12, DDE15, GLZ19, Hu15, HKL16, Kop15, KM12a, Li18, LYZ15, LL13, MJRK11, OHBNX15, PW19, RW13, SSW13a, SOG17, WW10b, WL16, ZLY16, dVLV18].

Meshfree [BSO12, SW12]. **Mesoscale** [TT10]. **Method**

[ALS13, AP16a, ACCD13, AP16c, ACEL18, AC10, AD18, AGT18, And13, ABSV16, ABPV12, AHPV13, AW10b, ASW10, BGL17, BCZ14, BC14, BCJT16, BCST19, Bea15, BMS10, BBK15, BG11, BB12, BB13, BY17, BdSS13, Bie11, BPP15, BCG15, BG19, BG14b, BN10, BCM10, BDS17b, BMcS10, BFH14, BBE11, BN11, BGGyS12, BSZZ13, BC17a, BRK14, BFK16, BTG12, BTDG13, Bur12, BHL17, BE18, CGS18, CK10, CW18, CGOT16, CZAL10, CZAL13, CC18, CSYZ18, CFM11, CFH13, CGKMC19, CGR12, CCCS16, CF12, CCD18, CNBW17, CDMP16, CZ10c, CHYL11, CGHW11, CLX13, CW13, CX13, CQR13b, CGLY17, CZ17, CTZ18, CSZ19, CPXZ19, CLP12, CH13, CKW13, CCF14, CQ17, CG17, CG18, Cim12, CDGQ10, CLS13, Col10, CBHW13, CM10, DHH13, DSZ17, DG16, DG11, DH13a, DGNS17, Dem10, DO12, DDE15].

Method [DH11, DH13b, DFW15, DGGQ16, DE11, DHS17, DGS13, DLLT18, DZZ19, DLTZ13, DLT13, DLT16, DHP13, DAA13, DE13, ELS15, EES18, EGMP13, Era12, Era13, FW13a, FLL⁺19, FHM16, FKMP13, Fei19, FW14, FR14, GR15, GHM10, GG13, GLT⁺17, GHM⁺18, GR16, GLR18, GH10, GG17, GJOR18, Gud12, GM17, GN18a, GJS17, GB10, GHY17, GL19, GR19, HSW13, HDVV10, HY13, HN11, HY12, mHLZ16, HOV16, HM17, Hes15, HP14, HK17, HLM13,

Hla14, HS16, HZZ19, HHX11, HJWZ16, HKL19, IWY10, JMN14, JP10, JWX14, JJLW16, JDZY16, JLZ13, JW13, JLPZ14, JLZ16, JN15, JZ12, KTK17, KK10, KW14a, Kas13, Kaw19, KW16, KPK11, KCL13, KZ15, KHCR19, KM12a, KFJ16, KWC10, KWC17, Kwo11, KL11, LK18, Lau17, LLS13, Lee15, LSBTS19, LOX18, LMS13, LT13, LGS14, LC15, LQT16, LQZ17, LZZ18].

Method [LS13b, LYZZ18a, ILNS19, LY12, LM13b, LM14a, LX14b, LYZZ18b, LWZ19, Loi13, LM14b, LX17, LY13, MC18, MMT16, MLMS17, MK18, Mas15a, Mas15b, Mas13, MNQ13, MTKO17, MT18, MA18, MBMS11, MM13b, MAF14, Nic17, NWZ17, NFM18, OR14, ORX14, OBLS14, OHBNX15, PL10, PV16, PC16, Plo19, Pot17, QTX15, QD11, RL13, RSW17, Ren15, Reu13, RT16, RW17a, RW11, RD17, RP13, RL15, SSZ11, SW12, Seg10, Sel10, SZ13, SWG14, SD19, Sol18, SSS11, SU12, Ste13, SOG17, Tak15, Tak13, Ull17, WW13, WBN16, WW10a, Wan14, WBL⁺15, WX18, WCF19, Wel11, WCK15, WR11, WY11, WZ18, mXqW10, XH14, XA16, XCLY19, YB11, YS13, YH16, YG15, YZ17, ZM16, ZLL⁺14, ZS10a, YG12, ZCY12, ZZY13, ZWGB15, Zha17, ZDK18, ZHA19, ZJB16, ZW11, ZX19, Zul15, CGM16].

Methods

[AVZ15, ACD10, AR14, ALM18, ADM⁺15, ANP17, AL14, BD16a, BCE14, BR15a, BC12b, BV10, BM11, BET11, BCL16, BKT13, BCPS12, BS18, BS16a, BPS11, BDN13, BD16b, BS15, BGSZ17, BGyS18, BHX10, BK10, BMRB19, BLO18, BH19, BHHN14, CWZ10, CYZ11, CK11, CHWG15, CHZ17, CGJ13, CNSV16, CZZ14, CZZ15, CSYZ15, CC19, CHP13, Car13, CPS13, CDG14, CP15, CH16a, CDNP18, CGT15, CST13, CCL⁺14, CET⁺16, CLL10, CX10, Che10, CCWX11, CG12b, CGSW13, CW17, CH18c, CGLM14, CCKW15, CLS18, CE18, CL18, CWZ14, CQS12, CGS13c, CZ13, CHL12, CY10, DHSW13, DER14, DG13,

DTV15, DP11, DP13, DP17, DGM⁺17, DP12, DKS11, ERW14, Eng15, EP16, Erv13, EJ17, FS14, FLX16, FJ17, FLZ17, FR16, FR17, GX14, GH15, GL15, GLV11, GLMV16]. **Methods** [GF12, GPV13, GT19a, GKN⁺18, GRZ15, GMR15, GMS18, GLZ19, GSV17, GSR17, HMKV13, HKLN16, HS15, HMP11, HJJ⁺13, HP15, HW17, HK16, HLS13, HH10b, HY11, HO14, HKL16, IGVG19, IKS18, IGG18, JV15, JS13, KS14, KAD19, KGM11, KMR13, KLP14, Ket19, KP10, Kim11, KSU14, KRR15, KSS12, KSW14, KY18, KS13, KSW18, Ku11a, Ku11b, KSS13, Kwa12, LG19, LTT13, LLS18b, Lee13, LH12, LV18, Li10, LL15, LX16, LW16, LN18, Li19, LB13, LB16, LLZ15, Liu11, LMM⁺13, Liu13b, LSZ18, LCG⁺10, LQB14, LL13, Mac15, MST11, MW12, MSZW13, Mig19, MB16, MAF19, MN11, MSS17, NA15, NT16, NS10, Nov17, OP12, OZ13, OS13, ORB16, PS19, PW14, PF13, Pet10, Pet11, Pot16, RG16, Röß10, SV10, SG15, San19, SZ15, SVZ12, SK13]. **Methods** [Sch11, SLY16, SV15, Sun11, TZ13a, TV16, TX19, Tha13, TYK11, TYK14, TD15, VZ18a, VZ18b, VZ19a, Ver12, WBN17, WN18, WYZ18, WHIC10, WL11, Wan15, WSZ15, WL16, Wil14, WR12, WW10c, XQ10, XS12, XZ18, XZwSW19, Ye13, YHX17, Zha13a, ZZK15, ZTRK15, ZLB16, ZFX17, ZSZ15, ZHZ⁺14, ZH15, dTEJ18, dTEJ19, Jin11]. **MHD** [CK16, LSBTS19]. **Micro** [DSZ17]. **Micro-Macro** [DSZ17]. **Microscale** [TT10]. **Midpoint** [BMS14a]. **Migration** [LZH18]. **Mildly** [Li18]. **Milstein** [LR18a, NHNY17]. **Milstein-Type** [NHNY17]. **Mimetic** [ABLV13, BLM10, BLM11, MLMS17]. **Mindlin** [BCLP10, HH10b, Lee13, Lee15, LMR10]. **Minimal** [AC16, CDNP18, HNSV13, MM16, Mir16]. **Minimization** [AAEM15, Bar12, BC10, GLZ15, LXY13, Woj12]. **Minimum** [BDS12, WYZ18]. **Miscible** [LS13a, RW11, WSS14]. **MITC** [BNS13, BCLP10]. **Mittag** [Gar15, MN11, RD17]. **Mittag-Leffler** [Gar15, MN11, RD17]. **Mixed** [ALM18, ABW15, AHPV13, AX13, AC16, AL14, BCE14, BG11, BS16a, BPS12, BP10, BRK14, BFK16, BLO18, BH19, CGS18, CWZ10, CZ10b, CGOT16, CKP11, CGR12, CDMP16, CW17, CH18c, CGL⁺10, DHH13, DFW15, DDLZ19, DH15b, EV15, Erv13, FW13a, FLX16, GS19, GHM10, GG11, GSV17, HJJ⁺13, HJKR16, Hu15, HY18, HHX11, IWY10, KP10, Kim11, KSS12, KPR13, Kwa12, LS13a, Li18, Li19, MMR13, MNP12, Owe19, QTX15, QD11, Sch11, UU16, VV14, WSS14, WS18, ZZLB13]. **Mixtures** [AT16, EJK10]. **Mobility** [RG16]. **Model** [AAEM15, AZC14, AN10, Bar17, Ben17, BOS10, CPS13, CS12a, CLJ⁺16, EJK10, FH10, FW12a, GHL18, KV10, LM13a, LQZ17, LY12, Luc11, MKW14, NR12, OZ13, PM14, QTX15, RGMP16, RÁM⁺17, RP13, RSY12, RY18, Sch11, SY12, TW18, WW11b, WY19, You17, Zhe17]. **Model-Dependent** [Ben17]. **Modeling** [BCGS10, CRR16, Fis15, GR15]. **Modelling** [DH15a]. **Models** [AP18, AZC14, CR18, DTZ13, DHL17, DLLT18, GRT14, Grü13, HJKR16, HJS19, JL18, KKN19, KL11, LD19, RT16, SY15, Sin14, TD14, ZD10]. **Modes** [Yi17]. **Modification** [BNP10]. **Modified** [BLWW13, BDdSM13, BdSS13, BFK16, DE11, FR14, HLY13, LY11, MC18, MS14, SSS11, WW11a, YKF18]. **Module** [XWG10]. **Molecular** [QTX15]. **Moment** [Hag11, LHM⁺16]. **Moments** [Rat16, TT15]. **Momentum** [HM17, KW14a, SSS11]. **Monge** [CHW19, FJ17, FO11, FO13, Ham19, LN18, NZ18]. **Monotone** [Arà13, BCJ19, CH18a, FS16, PL10, RZ19, Wan15]. **Monotonicity** [DHL17]. **Monotonicity-Preserving** [DHL17]. **Monotony** [ACCE10]. **Monte** [GHS18, JML13, MA18, Yam19, AHS14b,

AHS16, AKP14, BFRS16, CST13, DSZ17, Dic11, GLZ18, GSY16, HW15, He19, KSW14, KY18, KSS13, Ull17, WCK15].

Moore [XWG10]. **Mortar** [AX13, HH10a, PVWW13]. **Motion** [BCM10]. **Moulton** [RD17]. **Moving** [Bea15, FW13a, GL15, ORU18]. **Multi** [DFS19, HWZ17, XCLY19]. **Multi-Alleles** [XCLY19]. **Multi-Index** [DFS19]. **Multi-symplectic** [HWZ17]. **Multicomponent** [KSW18]. **Multidimensional** [BG14b, CSV19, MT11, NT16]. **Multifidelity** [KKN19]. **MultiFrequency** [BLRX15]. **Multigrid** [ASV15, DGM⁺17, DP12, HT17, HVX13, KK18a, SSZ11, SD19, TZ13a, Tak15, XZ18]. **Multilevel** [AHS14b, AHS16, BG14a, BFRS16, BCKZ13, CST13, CX10, CCWX11, DKGS16, Git13, HLT16, JKLZ17, KSW14, KY18, SVZ12, Wil14]. **Multilinear** [GMR15]. **Multinumerics** [PVWW13]. **MultiOrder** [MA18]. **Multipatch** [Moo19]. **Multipenalty** [FNP14]. **Multiphase** [BV16]. **Multiphysics** [GN17]. **Multiple** [DH15b, GPS16, JMO17, MV14, SLY16, WW10a, XA16, ZZY13]. **Multiplicative** [ACLW16, CH18d, FLZ17, LK16, MMJ⁺17, ZTRK15]. **Multiplier** [BCG15, Loi13, Tak13, WBN16, ZCY12]. **Multiplier/Fictitious** [Tak13]. **Multipliers** [CK17, HY13, JJLW16, LYZZ18b, MW12, YH16]. **Multipoint** [IWY10, Pet10, Pet11, Ste13]. **Multipressure** [CCM10]. **Multirate** [San19]. **Multiresolution** [HKS11]. **Multiscale** [AP16a, AHPV13, AX13, BCZ14, BCJT16, BPR17, CZAL10, CZAL13, CE18, ELS15, EGMP13, FW13b, GRZ15, HOV16, KFJ16, LSW10, LCY13, LCYC15, Mac15, PVWW13]. **Multistep** [Cha14, DP17, GF12, GHL18, HKLN16, MAF19, RSSZ17, SWG14, TYK11, ZZJ10, CW16]. **Multivariate** [BG17, BDSV10, HM14, Ull17]. **Muskhelishvili** [DH13b].

n [PS16]. **Nanoparticles** [ARYZ18]. **Natural** [BHH10, Fio18]. **Navier** [ABPV12, BCGS10, Bea15, BO11, BdSS13, BRY15, BC17b, CWZ10, CGOT16, CP13, CELR11, CW16, CQ17, DJY14, Dör12, FHM16, Fis15, GTW⁺12, GJS17, LOR11, LR18b, PRX19, SD19, Svä16, YDG10, dVLV18]. **Nearest** [GS18]. **Nearly** [OHBNX15]. **Nearly-Incompressible** [OHBNX15]. **Nematic** [AAEM15, NWZ17]. **Nested** [CW19]. **Nets** [Dic11]. **Networks** [GRK18]. **Neumann** [CdTGGP18, GLL11, JML13, QW19, XQ10]. **Neutral** [BCCHV14, Mas15a, Mas15b, TYK11, TYK14, ZFX17]. **Newton** [Che11a, BC17a, CG12b, GR15, HDVV10, HMP15, Jin11, Jin15, LK16, PS19, Pot17, Pot16, SV10, SLY16, SD19, WCK15]. **Newton-Like** [SLY16]. **Newton-Type** [Jin11, Pot16]. **Newtonian** [CGS18, CHP10]. **NICEM** [JMN14]. **Nicolson** [AF12, BKM13, GLS14, LGS14, ILNS19, MC18, ZLL⁺14, nZzSwW11, Zou18]. **Nicolson-Type** [nZzSwW11]. **Nitsche** [Bur12, BHL17, CH13, LR13]. **Nitsche-Based** [CH13]. **Nitsche-Type** [Bur12]. **NLS** [HWZ17]. **No** [SCP18]. **No-Slip** [SCP18]. **Nodal** [BC12a, BLM11, HJWZ16]. **Nodal-based** [BC12a]. **Node** [BKSY17]. **Nodes** [AR10a]. **Noise** [AHS16, ACLW16, Ben17, CHJ19b, CH18d, DKS16, DHP13, FLZ17, HW14, Jen11, KWH16, KLS10, LR18a, MMJ⁺17, ZTRK15, Zou18]. **Noises** [CHL17]. **Noisy** [Che11b, PST15, Woj12]. **Non** [CGLY17]. **Non-Lipschitz** [CGLY17]. **Nonaligned** [SVZ12]. **Nonasymptotic** [DDD⁺14]. **Nonautonomous** [Bla18, LV18]. **Noncoercive** [GU14]. **Nonconforming** [AC12, BKSY17, BMS10, BM11, BTG12, BHL17, CZ10b, CC19, CR12, CL15, CTZ18,

EV15, GG11, KK10, KWC10, KWC17, MNQ13, OP12, TD15, VZ18a, VZ18b, VZ19a, ZZMC19, CGM16].

Nonconservative [CFMP13].

NonConstant [BBHS14]. **Noncontractive** [OS13]. **Nonconvergent** [KH14].

Nonconvex

[BY12, BGyS18, CGLY17, KS12, ANP17].

Nonconvex [ZW18]. **Nondivergence**

[Gal17, SS13b]. **Nondominated** [CEH15].

Nonequispaced [DKP10]. **Nonfitting**

[CFNP18]. **Nonintrusive** [GLZ18].

Nonlinear

[Akr15, AD18, ABS15, AN10, BC12b, BC14, BCG⁺10, BDLV17, BJK10, BDS17b, BCL13, CK10, CSYZ18, Car13, CS18a, CGT15, CF12, CS12a, CCWX11, CSV19, CH18d, DDD⁺14, DP13, DEV13, Ebn14, FFP14, GLZ18, GHSS19, GNPY14, GP16a, HVC15, HVX13, IKP11, Jin11, JLZ18, JMO17, KK18b, KP10, KOS19, Krö19, LR14, LS14, LGS14, LW16, LY12, Liu13a, LX17, MSZW13, Mur14, PL10, SY12, SWG14, SYY19, Tha13, WZ18, ZM16, ZLL⁺14, ZJB16, ZZLB13].

Nonlinearities [DK13]. **Nonlinearity**

[ZZY13]. **Nonlocal** [ACG15, AU14, AN10, BMS14a, BCJ19, CLJ⁺16, DTZ13, DY16, DHL17, DJLQ19, Gud12, HFE18, JL18, PLR11, TD13, TD14, TD15, WW11b, ZD10, dTEJ18, dTEJ19, DLLT18, LL17].

Nonmonotone [LX17]. **Nonoscillatory**

[CGS15, FMT12, HLY13]. **Nonoverlapping**

[LT13, Loi13]. **Nonparametric** [DHRBR12].

Nonperiodic [Huy10]. **Nonrelativistic**

[BCZ14, BCJT16, CW19]. **Nonseladjoint**

[JZ12]. **Nonseparable** [LNS19].

Nonsmooth [AMK19, CG12b, LLX19,

WCF19, YKF18, YG15, ZW18, Jin15].

Nonsolenoidal [Ing11]. **Nonstandard**

[AW10a, CHP10, LX16]. **Nonstationary**

[CF12, GJS17]. **Nonsymmetric**

[Bur12, CX10, EES18, FFP14].

Nonuniform

[Arà13, GS14, LR18b, ILLZ18, NP16, RL17].

Norm [BJ19, HS13, KL13, Kop15, Ku11b, LLN18, Luc11, NZ18, XWG10, XZwSW19].

Norm-Estimations [XWG10]. **Normal**

[MV14, PS19, PW19]. **Norms** [Ket19].

Note [JO10, Mac15, SNSM13, Ste11].

Number [AR10a, BJS13, CLX13, DW15, FW14, LW19, Loi13, Peñ07, Xia10, ZW13].

Numbers [KMU16, WZ18]. **Numerical**

[AVZ14, ACD10, AMK19, ABIR19, AD18,

AC19, ANP17, AKT14, AN10, BCGS10,

BR15a, BBHJ15, BDS17a, BMR12, Bar17,

BB12, BB13, BS14, BKS11, BS11, BCJ19,

Bla18, BSW18, BMV18, BV16, BDSV10,

BH12, BK10, CR15, CS11, CWYZ19, CW16,

CH13, CBHW13, DMP13, DGHP16, Der12,

Dic11, Die14, DS18, ELN13, FHM16, FLM18,

FL16, Gal17, GHV18, Gar15, GO12, HSB17,

HPS13, HWZ17, HO14, HKL19, IPP13,

JV15, Jen11, JL18, JLZ18, KV10, KSW18,

KPR13, LMM16, LZ17, LR15, LR16, LY11,

LMY18, LSW18, ILMZ19, LW18, MKW14,

Mao15, MZ14, Mas15a, Mas15b, MST10,

MMJ⁺17, NHNY17, Nic17, NT16, NFM18,

PLR11, Pło19, Poe19, RWJG13, RBGV13,

SMSF15, SVD14, Svä16, TW17, WL14,

WZ19, WR11, Wu18, XCLY19, YZ11, ZD10,

ZZLB13, dTEJ18, dTEJ19]. **Numerically**

[Lee13]. **Numerics** [GL13, LR14]. **Nutrient**

[TW18]. **Nyström** [DH11, DH13b, ZB15].

Oblique [Kaw19]. **Oblivious** [BLFS17].

Observation [MZ13]. **Observational**

[CTZ18]. **Observations** [FSX13]. **Obstacle**

[BD17, BSZZ13, BGSZ17, CK17, GSV17,

MT13, OS16, WR12]. **Obstacles**

[ABIR19, Ing11, RZ19]. **ODE** [GM17].

ODE-Based [GM17]. **ODEs**

[CCKW15, SK13, Seg10]. **Once**

[Kal16, TZ13a]. **One** [CS10, CH19, D'A12,

GL13, HKL16, IPP13, JV15, LD19, LZ12,

LZZ18, Mac10, MZ13, MGGJ13, MSZW13,

SNSM13, SDKS13, Ste11, ZS10b]. **One-**

D'A12, SDKS13]. One-Dimensional

[GL13, IPP13, JV15, LZZ18, Mac10, MZ13,

SNSM13, ZS10b]. **One-Equation** [Ste11]. **One-Manifolds** [MGGJ13]. **One-sided** [CH19]. **One-Step** [HKL16]. **Online** [PM14]. **Open** [HJHUT14]. **Operator** [BC12b, BC14, BDO18, BD19, DDD⁺14, DKG⁺14, DKGS16, GMNS19, GG13, GG10b, HYZ16, HJHUT14, Hla14, LS16, LQZ17, NFM18, OS13, QW19, SV10, SDG16, WCH10, XZO19, XZ18]. **Operators** [AU14, BS11, BMV12, BL18, CEM13, CH18a, GT19a, GB10, JZ12, Ket11, LLMS17, LLN18, LR12, NS10, RN17, SV14, Wil14, XQ10, XWG10]. **Optimal** [ANS15, AF12, BBMZ19, BG14a, BC14, BMS10, BN10, BF17, BR15b, BGYs18, BCS18, CK10, CG12a, CR12, CL15, CH18b, CHYL11, CG12b, CQR13a, CDGQ10, CSV19, DMP13, DHJ17, DILP18, DP12, DW14, DH15a, FFP14, FPvdZ16, GLS14, Gao14, GSY16, GY16, GLT⁺17, GLL11, HMP15, HL10, HPS13, HM16, HP14, HY18, HJWZ16, Kay10, KW14b, KL15, LG11, LH12, LV13, LS13a, LGS14, LN18, LYYM10, LCY13, LCYC15, LSZ18, LL13, MC18, MM10, MW12, MM16, MT13, Mig19, Peñ07, RW17b, SW16, SSZ11, SY12, SD19, SYY19, VZ18a, VZ18b, VZ19a, WW10b, Wan16, Xia10, XS12, YS13, YZ17, ZX14, ZZK15, ZLY16, Zhe14, Bar14, CGS13b, FKMP13, VZ19b, WW13]. **Optimal-Order** [WW10b]. **Optimality** [BM11, BD16b, CP15, Fei19, Li19, TV16, Pla17]. **Optimally** [AW10a, GRT14]. **Optimization** [AKGR14, BDdSM13, BBS16, BV16, CGR12, CGT15, GGNV10, JLLO19, Kou17, LWZ19, OBLS14, RU13, VH14, YH16]. **Optimization-based** [OBLS14]. **Optimized** [GX14, GPV13, HJS13, KZ15, Kwo11, LCG⁺10, Loi13, XQ10]. **Optimizing** [Hag11]. **Option** [KL11]. **Options** [KTK17]. **Order** [AVZ14, AJ19, ADM⁺15, AH15, Arà13, AHZ18, ASW10, AGP17, BBMZ19, BGL17, BLWW13, BG11, BLM11, BB13, BdSS13, BMS14c, Ber18, BDLV17, BORM18, BKN13, BD16b, BF17, BDS17b, BN11, BGGyS12, BFK16, BH12, BEF10, BE18, CFZ15, CM18, CS14, CH16a, CH18b, CDNP18, CGT15, CC14, CCCS16, CDMP16, Che10, CGSW13, CD14, CWYZ19, CW16, CQS12, CZ13, DHSW13, DKG⁺14, DKGS16, DILP18, DHS17, DW15, DZZ19, DLT13, DH15b, DK14, DKR15, ELS15, ESV17, FW13b, Fio18, FS16, Gaz14, GLMV16, GSS12, GSY16, GT15, GT16, GR16, GLR18, GNPY14, GP16b, GP17, HMKV13, HS16, HSW17, HHZ11, HZZ19, Jen11, JLZ13, KW16, Kol14, Ku11a, Ku11b, Kwa12, LLS16, LLS18a, LR18a, Li10, LZZ18, Li18, LXZ18, lLzSsS10, LYZ15, LMM⁺13, Liu13a, Liu13b, LQB14, MNP12, MS12, NR12]. **Order** [Nic17, OTB18, RWJG13, RW13, SW19, SSW13a, SSW13b, Sch11, Seg10, Sel10, SDKS13, Sin14, SSS11, Tha13, WW10b, WZ12, Wan15, WL16, XS12, Yam19, ZS10b, ZS10a, ZX14, ZLY16, Zha17, Zhe14, ZX19, ZGD17, Zou18, ZH15, BB12, BMS14b, CK17, FMT12, GP16a, KL11, LLN18, SWWW12]. **Order-of-Accuracy** [BH12]. **Ordinary** [Rie14, WBN16]. **Orientation** [NWZ17]. **Oriented** [CK11, FPvdZ16, KAD19, BET11]. **Original** [CDGQ10]. **Orlicz** [EWK13]. **Orthogonal** [AR10b, GJS17, HM14, MT16, Xia12]. **Orthogonality** [BH11]. **Oscillations** [LY11]. **Oscillatory** [AAN11, BS19, CLMV19, DGK13, HKL19, LW16]. **Oseen** [AAEM15]. **Osher** [LM13a, WL11]. **Other** [VZ18b]. **Output** [GU10a, Zha17]. **Overconsistency** [VZ19a]. **Overlap** [GX14]. **Overlapping** [BCPS12, CKW13, DW13, LG19, Lee13, Oh13, PF13, WX18]. **P1** [HKL16]. **P1-Finite** [HKL16]. **Pantograph** [BHX10]. **Parabolic** [AC10, Akr15, BJK10, BR13, BP10, CCCS16, CF12, CS11, CK14, CvN10, DHP13, DH15b, EES18, EWK13, ESV17, GLV11, GY16, GT15, GT16, HMP15, JLZ13,

JLPZ14, Kar18, KL13, KLL16, KM12c, LLS13, LV13, LV16b, LV17, LV18, LC15, LS17, LY13, LW18, MNP12, MTKO17, Moo19, MBMS11, NOS16, OS16, PL10, SW19, Sin14, TV16, Wal10, WCF19, ZG12]. **Parallel** [CGHW11, CG17, CG18, Kwo11, LTX13, LCJ⁺18, MB16]. **Parallelization** [AKP14]. **Parallelotope** [MGGJ13]. **Parameter** [AABR13, And13, BPP15, FNP14, Gar15, GRK18, JL10, PST15, SK13]. **Parameter-Choice** [JL10]. **Parameter-Dependent** [SK13]. **Parameter-Free** [BPP15]. **Parameterizations** [HVC15]. **Parameterize** [RL13]. **Parameterized** [CPXZ19]. **Parameters** [CLJ⁺16, MA18]. **Parametric** [BCDS17, BMK10, BGN16, BS16a, BD19, DKG⁺14, DKGS16, FR14, GHS18, KKN19, SL15]. **Parametrization** [BC17a]. **Parametrized** [HSW13]. **Parareal** [CET⁺16]. **Parasitism** [BHHN14]. **Part** [BB12, BB13, CG17, CG18, ELS15, GU10a, GU10b, GT15, GT16, JDZY16, LLS18b, LR16, LSZ11, LA11a, LA11b, Mas15a, Mas15b, ZW13, dTEJ18, dTEJ19]. **Partial** [AP16b, CFZ15, Cha12, CQR13b, CRR16, CH19, DER14, DHP13, FO13, GR16, KTK17, KSS13, LOX18, LR18a, LYZZ18b, Owe19, RSW17, RW17b, TZ13a, WBN16, YKF18, ZG12]. **Partially** [LLZ15]. **Particle** [BS18, CLP12, FR16, FR17, JKLZ17, JW13, LD19, PW14, PC16]. **Particle-In-Cell** [FR16, FR17]. **Partition** [LX14b]. **Partitioned** [GGNV10, KMR13, LTT13, MST11, SZ13]. **Parts** [LLN18]. **Past** [BMO11]. **Path** [BFRS16, CR18]. **Path-Dependent** [CR18]. **Paths** [GL11, GL12]. **Pathwise** [CE18, Gaz14, Jen11]. **PDE** [BBS16, BJK10, BEF10, CEH15, Git13, KV10, Kou17, NOS16]. **PDE-based** [CEH15]. **PDE-Constrained** [BBS16, Kou17]. **PDEs** [BCDS17, BPS12, Bré13, CST13, CSZ19, CLP12, CK14, CDS10, EST18, GL13, GHS18, GMNS19, GW18, GHM⁺18, GLR18, HPS17, LY13, LW18, Mir16, OR14, Sin14, ZX14]. **Peaceman** [HH13]. **Pebble** [Tak13]. **Peer** [SK13]. **Penalization** [BCM10]. **Penalized** [LLZ15]. **Penalty** [BY17, BFH14, BN11, BGGyS12, BSZZ13, BGSZ17, BGyS18, Bur12, BHL17, DLM13, FLX16, GMR15, Jin15, KS14, Liu11, MSS17, RZ19, VZ18b, WW13, WR11, WR12]. **Penalty-Factor-Free** [Liu11]. **Penalty-Free** [Bur12, BHL17]. **Penrose** [XWG10]. **Perfect** [Fis15]. **Perfectly** [CZ10c, CW13, DK14, ES19, Kal12, LW19]. **Performance** [BC17a]. **Peridynamic** [DTZ13, TD13, ZD10]. **Periodic** [AP18, CEM13, DS18, HMP15, LZ17, NS10]. **Perron** [NFM18]. **Perturbation** [BN16, BN11, Nic17, NA15]. **Perturbation-Resilient** [NA15]. **Perturbations** [XWG10]. **Perturbed** [AT17, BY12, HK17, Kop15, LS13b, LYZZ18a, ZLY16]. **Petroleum** [SS13a]. **Petrov** [BTDG13, CH16a, CH18b, DHSW13, DKG⁺14, DKGS16, JLZ16, JN15, KAD19, Mir18, MAF14, YG15, ZZK15]. **Phase** [AT16, BLWW13, EJK10, Grü13, HT16, KS13, KSW18, LR13, LQT16, MW19, SS13a, SY15, WW11a, WY11]. **Phase-Field** [SY15]. **Photoacoustic** [ABGJ13, FKS14, SPH18]. **Physical** [FHM16]. **Picard** [CW19, CGS15, HMP15, PRX19]. **Piecewise** [AR10b, LM13a, LB19]. **Pitaevskii** [HM17]. **Planar** [LM14b, RL13, Zha17]. **Planck** [CS18a, JMO17, LMM16, LY12, SY12]. **Plane** [BMcS10, DW13, HMP11]. **Planewave** [NS10]. **Plasma** [BS19]. **Plasmas** [FR17]. **Plasmonic** [ARYZ18]. **Plasticity** [BMR12, WW11b]. **Plate** [BNS13, BCLP10, CTZ18, HHX11, RZ18]. **Platen** [BJK16b]. **Plates** [BSZZ13, BGSZ17, DHJ17, HH10b, Lee13,

Lee15, LMR10]. **PML** [CZ17]. **POD** [CS12a, Sin14]. **Poincaré** [AKK14, GG10a, SV14]. **Point** [BBHS14, DP12, FSX13, GLZ15, HFL12, LQB14, MM13a, SYY19, WN11, ZD12, BS15]. **Point-Source** [LQB14]. **Points** [AT17, BDSV10, DGK13, GL11, GL12, HKL19, Loi13, PGvD12, Zha13b]. **Pointwise** [BGyS18, DG13, FN13, Ku11a, LV13, LV16a, LV16b, LV17, LN18]. **Poisson** [ANP17, CPS13, CDM13, DGHP16, DG11, EO14a, FR16, FL16, JW13, MFD17, MST10, PC16, SDKS13]. **Policy** [AF16, HFL12]. **Pollution** [CEM13]. **Polyanalytic** [SVD14]. **Polygonal** [ABMV14, ABSV16, BLM11, BGyS18, CC18, FL16, KS12, LO13a, RW13, Zul15, dVLV18]. **Polygons** [HP14, HLM13, MSS17]. **Polyhedra** [SSW13a, SSW13b]. **Polyhedral** [BLM10, BHH10, KM12a, LV16a]. **Polymer** [FH10]. **Polynomial** [AP16c, BGL17, CPCD19, DGY19, EV15, ESV17, FS17, HLY13, JDZY16, LZ12, LZ14, LB19, MAF19, PBL15, Sch16, SVD14, Xia12, Xia16, ZZY13, Zha13b, ELS15]. **Polynomial-Degree** [ESV17]. **Polynomial-Degree-Robust** [EV15]. **Polynomials** [ADGP14, BJS13, CI12, DW14, GM17, HM14, JO10, Käm13]. **Polytopal** [BMW19]. **Polytopes** [FGS14]. **Pool** [NA15]. **Population** [AN10, DHRBR12, MKW14]. **Poroelasticity** [ORB16, Yi17]. **Porous** [BNY18, BMRB19, DAA13, Ing11, KPR13, LS13a, LS15, MW19, Pło19, RL15, SS13a, WSS14, dTEJ18, dTEJ19]. **Posed** [GN17, KWH16, LA11a, MRL14, MT16, Nov17]. **Posedness** [DFS17, KCDQ15]. **Position** [FW13a]. **Positive** [CPCD19, FW12b, GS18, Hag11, LHM⁺16, Wil14]. **Positive-Real** [GS18]. **Positivity** [FS11, HSZ18, Wu18]. **Positivity-Preserving** [HSZ18, Wu18]. **Possibly** [FFP14]. **Posteriori** [ALS13, AC10, ABLV13, BG10a, BKM13, BB16, BMW19, BMO11, BNS13, BBS16, BD19, BFH14, BES12, CZ10a, CYZ11, CK11, CDM⁺17, CKP11, CDG14, CM14, CET⁺16, CZ13, DG16, DG13, DEV13, Era13, EV10, EV15, ESV17, Fis15, GLV11, GLMV16, GMP15, GN18a, HH10b, KK18b, KP10, Kim11, KL13, Kop15, Ku11a, KS12, MNP12, PVWW13, SZ15, SW16, WW13, YDG10, BGSZ17, CHZ17, CK17]. **Postprocessed** [BNS13, LSZ11]. **Postprocessing** [CGL⁺10, MJRK11, MT18]. **Potential** [BdBE17, EV10, IKS18, MT11, PV16]. **Potential-Based** [MT11]. **Potentials** [EGK13, NS10]. **Potts** [WSD15]. **Power** [BR15b, DKS13, YB11]. **Power-Law-Like** [DKS13]. **Pre** [Owe19]. **Pre-Sobolev** [Owe19]. **Preasymptotic** [DW15, ZW13]. **Preasymptotics** [KMU16]. **Preconditioned** [BS15, HM16, Hla14, LK16, Ney13]. **Preconditioner** [DGS13, GNV18, Han13, LX16]. **Preconditioners** [BCLP10, BO11, BCKZ13, HMP15, SD19]. **Preconditioning** [AJ19, AKK14, BDdSM13, DP12, GMNS19, HJHUT14, HJWZ16, Log17, SV10, Zul15]. **Prediction** [DJY14]. **Premixed** [DDD⁺14]. **Prescribed** [RBGS17]. **Presence** [KLW16]. **Preservation** [Ket11]. **Preserve** [KLL16]. **Preserving** [BDS12, BIT13, CCKW15, DP13, DL11, DHL17, DJLQ19, EJS19, FR17, GNPY14, HMKV13, HKLN16, HSZ18, IGG18, JLQX14, KGM11, KFJ16, LLS16, LLS18a, LW16, LXZ18, LM10, MM16, Mir16, MT11, MB16, MAF19, NR12, WXZ18, Wu18]. **Pressure** [BB16, BRY15, GWW14, JN15, KLP10, LLMS17]. **Pressure-Correction** [BB16]. **Pressure-Robust** [LLMS17]. **Pressureless** [Col10]. **Pressures** [LT13]. **Pricing** [CL18, CRR16, KTK17, KL11]. **Primal** [BLO18, BH19, KLP10, WW11b].

Primal-Dual [BLO18, WW11b]. **Principle** [BDS12, Cla13, DL11, DJLQ19, GH12, GNPY14, Mir16]. **Principles** [WZ12].

Priori
[ALS13, AP16a, ANS15, ABSV11, BMO11, BPS12, BDO18, CYZ11, CKP11, Era12, FT17, HR13, KP10, KW14b, LV13, MT13, NKK13, NW19, WW13, ZS10a, CHZ17].

Priors [GH10]. **Probability** [Gaz14, PBL15, Yam19]. **Probing** [BRD15, CD12]. **Problem** [AD18, ANS15, ABMV14, ABSV11, BG10a, BHHS15, BC12a, BG11, BLM10, BBHS14, BO11, BG19, BV16, BF17, BD17, BMcS10, BN11, BSZZ13, BGSZ17, BGyS18, BHL17, BLO18, CS14, CKP11, CR12, CGR12, CPS13, CL15, CK17, CC13, CZ17, CH12, DS11, DHJ17, DE11, DLTZ13, DLT16, Fei19, GHM10, GMM12, GPV13, Gud12, GSV17, Ham19, HR13, HNSV13, HK16, IPP13, JDZY16, KCDQ15, KW16, KLP10, KHCR19, KW14b, KL15, LG11, LL11, LZH18, LYM10, LMR10, Mac10, MT13, OZ13, OS16, OTB18, SW12, SYY19, SU12, SV15, Tak15, VV14, WBL⁺15, XCLY19, YHX17, YXL19, ZHS16, ZB15, ZZMC19, ZW11, dVLV18, CDMP16].

Problems
[ACCE10, ABLV13, ADM⁺15, ASV15, AF12, AW10b, AX13, ASW10, AWJ16, AKK14, BD16a, BLRX15, BBM13, BCLP10, BLM11, BSS10, BB12, BB13, BY17, Ben17, Ber18, BC10, BDN13, BR13, BP10, BR15b, BY12, BS15, BBE11, BGGyS12, BRK14, BFK16, BC17b, BE18, BES12, CK10, CZ10b, CYZ11, CZ12, CHZ17, CM18, CF12, CLMV19, CS11, CZ10c, CX10, CHYL11, CG12b, CW13, CQR13a, CH13, CK14, Cim12, Cla13, CQS12, CZ13, CDS10, CM10, CvN10, D'A12, DHH13, DH13a, DG13, Der12, DS18, DW12, DW13, DEV13, DP12, DH15b, EES18, ESV17, FW13b, FFP14, FR14, GHV18, GL15, GLV11, GLMV16, GGNV10, GSS12, GN17, GY16, GLT⁺17, GT15, GT16, GT19b, GMR15, GLL11, GL19, HFE18, Hal16, HJS13, HMO19, HMP15, mHLZ16, HL10].

Problems
[HPS13, HS15, HM16, HK17, HJJ⁺13, HW14, HHX11, IKP11, JLLO19, JP10, JLLW16, Jin11, Kal16, Kar18, Kaw19, Kay10, KPK11, KSU14, KWH16, KSS12, KL13, Kop15, Kou17, KWC10, Kwa12, LLS13, LR13, LH12, LV13, LV16b, LV17, LV18, LX16, LJC17, LLX19, ILMZ19, LS13b, LLZ15, LYZZ18a, Liu11, LM14a, MLMS17, MRL14, Mas15a, Mas15b, Mas13, MNQ13, MNP12, MO14, MT16, Moo19, MA18, MSS17, NZ12, Nic17, NOS16, Nov17, ORX14, OP12, PKK⁺15, Pla17, RG16, RZ18, RBGV13, RU13, Sau10, SZ15, SVZ12, SS17a, SW19, SW16, SSZ11, SSW13a, SSW13b, Sch11, SW10, SLY16, SYY19, TZ13a, TD15, VZ18a, VZ18b, VZ19a, WYZ14, Wan15, WSZ15, WX18, WNP14, WR12, mXqW10, YB11, YH16, ZZK15, ZJB16, ZHZ⁺14, Zul15, dFGAN10, KWC17].

Procedures [GGNV10, NHNY17]. **Process** [BSS10, BG14b, FSX13, GH10]. **Processes** [ABS12, ABS15, Rat16]. **Processor** [AKP14]. **Producing** [GN18b]. **Product** [BKT13, GHS18, Ket19]. **Products** [Bac13]. **Profiles** [Ren15, Ren16]. **Programming** [BCHB10, CGLY17, GHY17, LX17].

Programs [HY13]. **Projected** [BS18, BS14, DLT13]. **Projection** [ABPV12, BV10, Bec11, BKT13, CCD18, Col10, DCdL18, GLT⁺17, GHSS19, GHL18, Kno10, TV16, WW10c]. **Projection-Based** [GHSS19]. **Projective** [LLS16, LLS18a].

Propagation [AP18, AW10a, BCR16, BTG12, KLP14, MZ13]. **Proper** [GJS17]. **Properties** [FS11, LR15, LR16, LM13b, Nov17, Wal10, Zul15]. **Property** [ZW18].

Provable [Liu13b]. **Proximal** [LX17]. **Pseudospectra** [GL11, GL12].

Pseudospectral
[BCZ14, BC14, BCJT16, Hes15, Tha13].

Pseudostress [CKP11, CGS13b].

Pseudostress-velocity [CKP11]. **Pure** [BB12, BB13, CR12]. **Pursuit**

[Fou11, MT16].

QC [ALS13]. **QMC** [DKG⁺14, DKGS16].

Quadratic

[BCHB10, BGGyS12, BSZZ13, BIT13, HY13, HL10, LH12, MZ13, Mir19, SW16, SL15].

Quadrature [ADGP16, AT17, BJK10, CM18, Hag11, HO14, PR14, Spa14, Wei19, Xia12, XB13, ZWX13]. **Quadratures**

[CS12b]. **Quadrilateral**

[GLZ19, LYZ15, LL13]. **Quadrilaterals**

[AC12, AC16]. **Qualitative** [BV16].

Quantification [DS11, DFS19, HPS17].

Quantitative [BY12]. **Quantity**

[CCL⁺14, HZZ11]. **Quantity-of-Interest**

[CCL⁺14]. **Quantization**

[CL18, PW12, Sel10]. **Quantum**

[FLL⁺19, LK18]. **Quasi** [BH11, BMR12, Bar14, BMS10, BM11, BCCHV14, BN10, BC17b, CGS18, CG12a, CGS13b, Cim12, DHH13, Dic11, DLLT18, EWK13, FKMP13, GSY16, GT15, GT16, HDVV10, HW15, He19, HY18, KSS13, LL17, MW12, NW19, Pla17, TV16, VL11, VZ18a, VZ18b, VZ19a, VZ19b, WW13, WZ12, Wan15, GHS18].

Quasi-Continuum [VL11]. **Quasi-Linear**

[Cim12, GT15, GT16, Wan15, EWK13, NW19, WZ12]. **Quasi-Monte**

[Dic11, GSY16, HW15, KSS13].

Quasi-Neutral [BCCHV14].

Quasi-Newton [HDVV10].

Quasi-Newtonian [CGS18].

Quasi-nonlocal [DLLT18, LL17].

Quasi-Optimal [BMS10, BN10, CG12a, HY18, MW12, VZ18a, VZ18b, VZ19a, Bar14, CGS13b, FKMP13, VZ19b, WW13].

Quasi-Optimality [BM11, TV16, Pla17].

Quasi-Orthogonality [BH11].

Quasi-reversibility [DHH13].

Quasi-Static [BMR12].

Quasi-unconditional [BC17b].

Quaternionic [JO10].

Rachford [BS15, GHY17, HH13, HY12].

Radial [DDP17]. **Radiation** [KZ15].

Radiative [ES16, ES19, GK10]. **Random** [BCL17, BPS12, Cha12, CST13, CQR13b, DGHP16, DKG⁺14, EST18, Git13, GKN⁺18, HPS17, KSS13, LR12, LW18, ZG12].

Randomized

[BG14a, GWW12, HW15, LX17]. **Rank**

[BD16a, IKP11, Käm13, KLW16, LVW18, OPW19]. **Rank-** [Käm13].

Rank-Constrained [LVW18].

Rank-Deficient [IKP11]. **Rapid** [CI12].

Rate [AC19, AWJ16, Bar14, BCJ19, BN10, CHW19, DHRBR12, FKMP13, GL18, HYZ16, HY12, HW15, He19, JLO19, LZH18, LYZZ18b, MPPS10, WMI10, Zhe17].

Rate-Independent [Bar14, MPPS10].

Rates [BCS18, CP13, CH18b, CvN10, CR18, CH19, EP16, FHW12, FFP14, Git13, HW14, KWH16, NZ18, SS17b, Sol18, XB13, Xia16].

Rating [LZH18]. **Ratio** [ABW15].

Rational

[Bec11, DKS11, GT19b, GK13, JKK⁺13, KB12, PGvD12, PR14, WMI10, WW10c].

Raviart [BMS14c, BMS14b, BS16a, CGS13a, CGS13c, Oh13, VZ19b, Zul15].

RBF [FW13b]. **RC** [AKGR14]. **Reaction**

[ABS15, BDS17a, BBHS14, CL19, DDD⁺14, DDE15, GPV13, GRK18, HK17, JN11, Kno10, Kop15, LMV13, ILLZ18, LS13b, LYZZ18a, Luc11, Wel11, ZLL⁺14, ZTRK15].

Reaction-Diffusion

[ABS15, HK17, Kop15, LS13b, Luc11].

Reaction-Dispersion [BBHS14].

Reaction-Subdiffusion [ILLZ18].

Reactive [KPR13]. **Real** [GS18, Hla14].

Really [ALM18]. **Rebalanced** [SGMS13].

Recast [KL15]. **Reconstructing** [Käm13].

Reconstruction

[AWJ16, BdL10, CN17, EV10, FKS14, Lau17, LLMS17, TT10, WSD15].

Reconstructions [AHS14a, AHZ18, BBMZ19, BCL16, CN17, CSV19, KL13].

Recovered [KH14]. **Recovery**

[BdBE17, CZ10a, CZ10b, NZ12, Reu13,

WCH10, ZW18]. **Recovery-Based** [CZ10b]. **Rectangular** [HHZ11, Hu15]. **Recurrence** [CW18]. **Recurrences** [MV14]. **Recursive** [BLRX15]. **Red** [LX14b]. **Redistancing** [Reu13]. **Reduced** [AW10a, CQR13b, HSW13, HJKR16, RAM⁺17, Sin14]. **Reduction** [CM18, CS12a, Mir14, Mir19, PM14]. **Refined** [CM14]. **Refinement** [Ebn14, Era13, KAD19, Mor16]. **Refinements** [GN18b]. **Regime** [BCZ14, BCJT16, CW19, CLY19, DDD⁺14, YZ14]. **Regimes** [BS19]. **REGINN** [MRL14]. **Regionally** [GR19]. **Registration** [LG11]. **Regression** [BG17, GLZ18]. **Regular** [ZF16]. **Regularity** [AB17, CDNP18, GHM⁺18, KCDQ15, KLL16, LV18, LS15, LS17, RW11, TZ13a, XB13, Xia16]. **Regularization** [BNS14, Ben17, DLTZ13, FNP14, HW17, JL10, Kal16, PV16, Pla17, ZW18, ZW11]. **Regularized** [ACSW12, BCST19, BCG⁺10, Krö19, MT16, ACSW14]. **Reissner** [BCLP10, HH10b, Lee13, Lee15, LMR10]. **Related** [BC17b, GG10b, RN17, TW17]. **Relativistic** [LMO12]. **Relaxation** [AKGR14, BR13, BPR17, HJS13, Ket19, KV10]. **Relaxed** [LLS18b]. **Reliability** [CGS13a]. **Reliable** [Seg10]. **Remarks** [Pet11]. **Renewal** [BL18]. **Renormalized** [GR15]. **Reproducing** [GRZ15, RD17]. **Requirements** [GN17]. **Resampler** [GLZ18]. **Rescaling** [RT16]. **Residual** [ABPV12, BG10a, BCG⁺10, CZ12, CM14, CS18b]. **Residual-Based** [BG10a, CM14]. **Residuals** [WCK15]. **Resilient** [NA15]. **Resistive** [LSBTS19]. **Resolution** [CR17]. **Resolvent** [GG10b, GG17]. **Resonance** [FS14, Hal16]. **Respect** [MZ14, Sau10]. **Restoration** [Kay10, ZW18]. **Restricted** [FW12b]. **Restrictions** [JN15]. **Result** [Era12, RZ18]. **Resultant** [NT16]. **Results** [BB13, BV16, CPS13, CS11, GF12, HW17, LV16a, LV16b, LV17, Li19, Mas15a, Pla17, Sin14]. **Retarded** [BMV12, MZ14]. **reversibility** [DHH13]. **Reweighted** [LXY13]. **Rham** [GNV18, RBGV13]. **Rheology** [DKS13]. **Riccati** [BS14, HS14]. **Richards** [BKS11, BC17a]. **Richardson** [DGY19, mHLZ16]. **Riemannian** [BGN19, LCJ⁺18, Mir19]. **Riesz** [ZLL⁺14, ZDK18]. **Right** [ABSV11, KW14b]. **Right-Hand** [ABSV11, KW14b]. **Rigid** [BCM10]. **Rigorous** [DK13, GL13, LR14]. **Ritz** [GHL18]. **RKHS** [PS19]. **Roaming** [GL11, GL12]. **Robin** [CGHW11, CQR13a, CK14, CdTGGP18, GGNV10, JMN14, KCDQ15, KSS12, LX14b, XQ10]. **Robin-Robin** [GGNV10]. **Robin-type** [LX14b]. **Robust** [AKK14, BMO11, BCLP10, BKS11, BNY18, CZ12, CHZ17, CDM⁺17, CR12, DH13a, DEV13, EV15, ESV17, HK17, HT17, HK16, Kou17, LLMS17, PVWW13, SSZ11, Tak15, TD14, WSD15, Wil14, ZB15, dTEJ18, dTEJ19]. **Rogers** [HNSV13]. **Role** [UU16]. **Root** [HL15, Pet10, Pet11]. **Root-Finding** [Pet10, Pet11]. **Rootfinding** [NT16]. **Roots** [AKT14, PGvD12]. **Rotating** [BDLV17]. **Rotation** [HM17]. **Rough** [BFRS16, CHL17, GPS16, KOS19, SS17b]. **Roughening** [KV10]. **Rudin** [LM13a, WL11]. **Rules** [CM18, DGY19, DGK13, GSY16, JL10]. **Run** [BRO10]. **Runge** [BR13, BPR17, BEF10, CH16b, CHJ19b, CCKW15, DP11, DP13, HMKV13, HPS13, HP15, IGG18, Kay10, KGM11, KMR13, KLP14, Ket19, Li10, LL15, MST11, Röß10, SG15, SwS19, TYK14, XZwSW19, ZS10a, ZFX17, ZSZ15]. **Sacker** [Hül10]. **Saddle** [BBHS14, BS15, GLZ15, HKL19, LO17, SYY19, ZD12]. **Saddle-Point** [BBHS14, BS15]. **Sample** [DT17]. **Samples** [AHS14a]. **Sampling** [DDP17, GKN⁺18, JDZY16, Käm13]. **Santos** [BKSY17]. **Satisfying**

[LY12, LCS15]. **Saturation** [Pla17]. **SAV** [SX18]. **Scalar** [CZ10a, CSYZ18, Cla13, DW13, FLM18, GPS16, Gos14, GNPY14, GP16a, GP17, LXZ18, MZ16, MSZW13, Ren15, Ren16, ZS10b, ZS10a, SX18]. **Scale** [BCGS10, JLLO19, LN18, LSZ11, NP16]. **Scaling** [JLQX14]. **Scattered** [FW12b]. **Scatterers** [KWB15]. **Scattering** [ABIR19, BCL17, BS11, CZ10c, CW13, CZ17, DS18, Hal16, HLM13, LZ17, LMS13, LM11b]. **Scheme** [AP16b, AW10a, ACCE10, BH17, BLWW13, BJK16b, BB13, BCCHV14, BSW18, BdL10, Bré13, BM16, CS14, CC13, CER14, CK16, CR15, CD14, CN17, CHJ19a, CWYZ19, CRR16, Col10, CvN10, CH18d, DCdL18, DS18, DKR15, EJS19, EGHL10, FF14, Gaz14, Gos14, GTW⁺12, GO12, HH13, HWZ17, JMO17, KST15, LLS16, LLS18a, LZ17, LNR11, LR18a, LZH18, LXZ18, LR18b, LLX19, lLzSsS10, LM10, LCJ⁺18, MMJ⁺17, NSS19, PKK⁺15, RZ19, Rid16, RL17, RSY12, RY18, SS13a, SW19, Svä16, WMI10, WW11a, WL14, WY19, YKF18, ZS10b, nZzSZ12, ZZJ10, Zhe17, DJY14, Kol14, MM14]. **Schemes** [AD18, AF12, ABBM11, ABS12, ABS15, AAN11, AN10, BKM13, BB16, BJK16a, BDS12, BJK10, BCJ19, BSO12, BR13, BEF10, CH18b, CFMP13, CC14, CCCS16, CDM13, Cha14, CS11, CS10, CW16, CGS15, CK14, CKK19, DMP13, DG16, DL11, DJLQ19, DH15b, Ebn14, ES16, ELM15, FKS14, FMT12, FS16, FS11, FO13, GMP15, GG15, Grü13, GHL18, HLY13, HPS13, HSW17, HSZ18, JLQX14, JP17, KPR13, lLMZ19, LYZ15, LAFS16, Liu13a, LCS15, MM10, MZ16, MT11, Moo16, NR12, PS16, Rat16, Rie14, RU13, RSSZ17, SS17b, SDKS13, SWWW12, SY15, SX18, SDM18a, SDM18b, SZZ18, TD14, TT10, Wal10, WBN16, WW10b, WXZ18, Wu18, YB11, nZzSwW11, dTEJ18]. **Schrödinger** [AAN11, BC12b, BC14, BCST19, BDLV17, CEM13, Car13, CH16b, CH12, CH18d, DGNS17, IPP13, IKS18, JW13, KK18b, KOS19, LZZ18, lLzSsS10, Liu13a, MC18, NS10, Tha13, YZ14, Zhe14]. **Schwarz** [BCPS12, CKW13, CG17, CG18, DW13, GX14, GH15, GPV13, HJS13, HH14, JMN14, KZ15, Kwo11, LC15, LK16, Loi13, Oh13, XQ10]. **Schwoebel** [SWWW12]. **Scott** [CELR11]. **SDE** [Yam19]. **SDEs** [AVZ14, DKS16, DF12, LL19, TZ13b]. **SDFEM** [ZLY16]. **SDG** [CQ17]. **SE** [PS16]. **Search** [GLZ15, LO17, ZD12]. **Second** [AH15, ASW10, AGP17, BGL17, BLWW13, BB12, BB13, BdSS13, BORM18, BFK16, CFZ15, CGT15, Che10, CGSW13, CWYZ19, CQS12, CZ13, DZZ19, DLT13, DK14, ELS15, FW13b, Fio18, FS16, GLMV16, GSS12, GNPY14, GP17, Ham19, HS16, KL11, LZZ18, MNP12, OTB18, SSW13a, SSW13b, Seg10, SWWW12, WZ12]. **Second-Order** [AH15, AGP17, BFK16, CFZ15, CGT15, CGSW13, CQS12, DZZ19, DLT13, FS16, GNPY14, GP17, HS16, LZZ18, OTB18, SSW13a, KL11, SWWW12]. **Sections** [LR12]. **Seepage** [AD18]. **Seidel** [HNSV13]. **Selection** [AABR13, IKP11, LQZ17, LCS15]. **Self** [HS15, IPP13]. **Self-Adjoint** [HS15, IPP13]. **Sell** [Hül10]. **Semi** [BDN18, CS14, CDM13, CCKW15, FJ17, GPS16, LQT16, MM14, PKK⁺15, Rie14, RSY12, RY18]. **Semi-discretization** [GPS16]. **Semi-Explicit** [MM14]. **Semi-Implicit** [BDN18, CCKW15, LQT16, Rie14]. **Semi-Lagrangian** [CS14, CDM13, FJ17, PKK⁺15, RSY12, RY18]. **Semialgebraic** [ZF16]. **Semiclassical** [AAN11, Car13, CLY19, JW13, YZ14]. **Semidiscrete** [CHJ19a, Gaz14, JLZ13, Kar18, LSZ18, MM16, XS12, FS14]. **Semidiscretization** [CH16b]. **Semidiscretizations** [CHJ19b, KTK17]. **Semigroup** [Dör12, MTKO17]. **Semigroups** [GG10b, GG17, OS13]. **Semilinear** [AMK19, ACLW16, Gau15,

HH13, KM12c, MTKO17, PL10, ZZY13]. **Semipermeable** [CGJ13]. **Sensing** [Fou11]. **Sensitivities** [And13, GRK18]. **Sensitivity** [BMK10, BBE11, BES12, CNBW17, SK13, WP19]. **Separate** [CR17]. **Sequences** [BDdSM13, CF17]. **Series** [GG10b, LR14, LO13b]. **Serre** [ADM17, ADM21]. **Set** [DH15a, GLR18, HVC15, Reu13]. **Set-Parameterizations** [HVC15]. **Set-Valued** [HVC15]. **Sets** [FS17, Gra17, ZF16]. **Setting** [EV15, KL15, Poe19]. **Several** [ACG15, CCM10, Han11]. **Shadowing** [CNBW17, Wan14]. **Shallow** [AGP17, BdL10, DCdL18]. **Shallow-Water** [DCdL18]. **Sham** [LWW⁺15]. **Shape** [BV16, Cim12, DHJ17, LO13a, MM10, PS19]. **Shaped** [YLH18]. **Sharp** [BH11, Ku11b, ILLZ18, LM14b, OZ13, XWG10, ZWX13]. **Shaw** [FW12a, FLX16]. **Shear** [BMcS10]. **Shearlet** [HKS11]. **Sherman** [DH11, DTV15]. **Shift** [NP16]. **Shifted** [YB11]. **Shifted-Inverse** [YB11]. **Shishkin** [ZLY16]. **Shock** [CER14, Ren15, Ren16, ZM16]. **Shocks** [SNSM13]. **Shooting** [XA16]. **Shrinking** [ZD12]. **SIAC** [MJRK11]. **Side** [ABSV11, KW14b]. **Sided** [MK18, SV14, CH19]. **Sign** [CCKW15]. **Signals** [Che11b]. **Signed** [Zha17]. **Signorini** [BHL17, DE11, DH15a, HR13]. **Similar** [SV14]. **Similarities** [HDVV10]. **Simple** [JO10, Liu13b]. **Simplices** [CS12b]. **Simplicial** [CH12, FS17]. **Simplified** [IKS18]. **Simulation** [DSZ17, HT16, Mao15, YLH18]. **Simulations** [GRK18, TW18]. **Sine** [BC14]. **Singular** [BC12a, BDN18, BN11, CS12b, GR18, GL18, KLW16, LZ12, LZ14, LB19, LM11a, Mac10, MK18, PWZ13]. **Singularities** [AR14, DGK13, ERW14, GT19b]. **Singularly** [BY12, HK17, Kop15, LS13b, LYZZ18a, ZLY16]. **Size** [DHRBR12, HKLN16, JLLO19, LQT16, PW14]. **Size-Structured** [DHRBR12]. **Sized** [CG17, CG18]. **Sizes** [Ket11]. **Skeel** [Xia10, Peñ07]. **Skeletal** [DDE15]. **Skew** [Der12, GO12]. **Skew-Symmetric** [Der12, GO12]. **Slip** [SCP18]. **Slope** [LQZ17]. **Slow** [AGK⁺11]. **Smagorinsky** [RÁM⁺17]. **Small** [AHS16, BMR12, Han11, KLW16]. **Small-Strain** [BMR12]. **Smoluchowski** [BMK10]. **Smooth** [DK13, FHM16, GSY16, LM11a, PST15, Ull17, YG15]. **Smoothed** [LXY13]. **Smoother** [CTZ18]. **Smoothing** [BG10b, CG12b, HJS19, WL11]. **Smoothly** [IGVGF19]. **Smoothness** [DILP18, Die14, GG17, MJRK11]. **Smoothness-Increasing** [MJRK11]. **Sobolev** [AU14, BD16a, FW12b, GG10a, KMU16, LSW10, Owe19]. **Soil** [BKS11]. **Solid** [GMM12, Ing11, KSU14, YHX17]. **Solution** [Bar12, Bar17, BS14, BKS11, CHW19, DGHP16, Der12, FL16, HMO19, HM16, HK16, LMM16, LJC17, Mas15a, Mas15b, Nic17, RBGV13, SVD14, WR11, WR12, ZB15]. **Solutions** [AP16b, AB17, BC12a, CMS16, CLP12, FLM18, FO11, GU10a, GU10b, HL10, IPP13, KM12c, LV16b, LV17, LY11, LZ12, LZ14, LS17, LB19, LW18, MK18, MJRK11, MTKO17, NHNY17, Röß10, Seg10, YB13, YZ11, ZZY13, ZGD17, ZH15]. **Solve** [CHP13]. **Solver** [CG12a, ZG18]. **Solvers** [BHHS15, BC17b, FO11, JML13, LL11, ZX14]. **Solving** [AHZ18, BR15a, BS18, DHH13, DJY14, DKS11, GW18, GL10, GLZ18, GT19b, Hla14, JLLO19, JWX14, JMO17, KPK11, KST15, LW16, OR14, WHIC10, WY11, ZZJ10]. **Some** [AC19, CS18a, FS11, Jin11, KTK17, Li19, Nov17, Owe19, RN17, RT16]. **Sorting** [CEH15]. **Source** [BLRX15, BCL17, CX13, HW17, Luc11, LQB14, Ver12]. **Space** [ACG15, AX13, BGL17, CGKMC19, CF12,

CCM10, CS12a, CD14, CLJ⁺16, CS10, DW13, DHP13, DH15b, DK14, ER18, ESV17, GNV18, GRZ15, Hal16, HS15, HJJ⁺13, HJKR16, JL18, JLPZ14, JMO17, KHCR19, KRR15, LC15, LWD17, ILNS19, MZ16, MSZW13, MPPS10, Moo19, NOS16, OR14, ORX14, RD17, WW10a, WYZ14, ZLL⁺14, ZG18, Zou18]. **Space-Fractional** [JLPZ14, ILNS19, WYZ14, CLJ⁺16]. **Space-Time** [ER18, ESV17, HJKR16, LWD17, MZ16, NOS16, Zou18]. **Spaced** [JDZY16]. **Spaces** [AU14, BD16a, BG14a, BMV18, BG17, CFQ18, D'A12, DILP18, ELS15, EWK13, FL16, FHN⁺13, GHSS19, HT17, Jin15, LSW10, LB19, MRL14, Owe19, WNP14]. **Spacetime** [DGNS17]. **Spacetimes** [LMO12]. **Spanning** [DS10]. **Sparse** [Bie11, CS11, EST18, Git13, JDZY16, KM12b, PH16, SW10, WSD15, Yin09, ZWGB15]. **Sparse-Grid** [ZWGB15]. **Spatial** [CE18, CH19, JKK⁺13]. **Spatially** [KMR13]. **SPDEs** [BJK16b, Bie11, Jen11]. **Special** [CDGQ10]. **spectra** [Hül10]. **Spectral** [AW10a, AGT18, BMS14a, BTG12, CW18, CEM13, CNSV16, CHYL11, CdTGGP18, DY16, HW17, IPP13, LMS13, LTX13, LX14a, LQT16, LM11a, LY13, MFD17, MK18, MMR13, SW10, SY12, SWG14, mXqW10, XQ10, ZLL⁺14, Zha13b, ZZK15, ZH15]. **Spectral-Finite** [AW10a]. **Spectral-Galerkin** [SY12]. **Spectral-Subdomain** [LTX13]. **SPH** [LD19]. **SPH-Like** [LD19]. **Sphere** [ACSW10, ACSW12, ACSW14, FHN⁺13, LSW10, Mir18, PST15]. **Spheres** [KW14a]. **Spherical** [ACSW10, ACSW12, ACSW14, FKS14, LCG⁺10, Mac10]. **Spline** [CTZ18, DTV15, DGM⁺17, FL16, HT17]. **Splines** [BG10b, BMV18, Mor16]. **Split** [Eng15]. **Split-Step** [Eng15]. **Splitting** [AVZ15, ASS16, BR15a, BLWW13, BS15, CHWG15, CHP13, Car13, CLL10, CE18, CvN10, CH18d, DDD⁺14, Dör12, DW14, EJS19, EO14a, EO14b, GHS14, GHY17, HYZ16, HS14, HLS13, LQZ17, Liu13a, OS13, OPW19, PV16, SWWW12, SGMS13, Tha13]. **Splittings** [HT17]. **Spontaneous** [BGN16]. **Spurious** [FS14]. **Square** [CHJ19a, TZ13b]. **Squares** [ACSW12, ACSW14, BCG⁺10, BMS14c, BMS14b, Ber18, BPS11, BCS18, CK11, CP15, CS18b, CGT15, CNBW17, CCL⁺14, CLS18, HDVV10, Hes15, IKP11, Ku11a, Ku11b, LXY13, LMM⁺13, Mig19, MS12, ORU18, SPH18, SSS11, Wan14, CK10, PST15]. **Stability** [AHS14a, Akr15, ABS12, BCGS10, BCE14, BDN18, BORM18, BKN13, BC17b, BK10, BM16, CR15, CW13, CW16, CKK19, Der12, DEM15, DH11, DH13b, DK14, EJ17, GF12, GTW⁺12, GO12, GR19, HMKV13, HKLN16, HN11, HKL16, IGG18, KGM11, Ket11, Ket19, Lau17, LTT13, LL11, LM14b, Mao15, MST11, MAF19, NV14, OS13, PF13, QD11, Ren16, RSSZ17, RL17, SSW13a, SwS19, SCP18, TYK11, TYK14, WN18, WSZ15, XZwSW19, ZS10a, ZHS16, ZFX17, GT15, Kal12]. **Stabilization** [ABW15, BEF10, BS16b, EG13, ELN13, GL17, Kno10, LQT16, dFGAN10]. **Stabilized** [AABR13, BCE14, BV10, BBHS14, BPP15, BC10, CELR11, GG15, GSV17, HLZ15, JN15, LOX18, RW17a, SV15, Wel11]. **Stable** [BGN19, CFMP13, CC14, CACS16, CK16, FN13, FW14, FR16, FMT12, GRT14, GSR17, GN18b, HT17, HK16, HVC15, JP17, KSW18, KLL16, KM12b, LS16, MMJ⁺17, Nor16, PGvD12, SW19, SY15, Ste11, WW11a, XWG10, ZZJ10]. **Stage** [CET⁺16]. **Staggered** [CKW13, CCF14, GF12, KCL13, KFJ16, MLMS17, OHBNX15]. **Standard** [BCL16, Fei19]. **Star** [GWW12, YLH18]. **Star-Shaped** [YLH18]. **State** [AZC14, AWJ16, BF17, BGyS18, CS12a, CG12b, CCKW15, HMP14, HM16, LYYM10, MKW14, WP19, You17, WY19]. **State-Dependent** [MKW14]. **Static**

[BMR12]. **Stationarity** [PW12].
Stationary
 [CWZ10, DGK13, GKN⁺18, LM14a, MST10, Ren15, SNSM13, SD19, YZ11, YZ17].
Statistical [FLM18]. **Steady** [AWJ16, BLM10, CCKW15, DKS13, Ren16, WP19].
Steady-State [AWJ16, WP19]. **Steepest** [KV10, Ney13]. **Steepest-Descent** [KV10].
Stehfest [Kuz13]. **Steklov**
 [CZAL13, YXL19]. **Stemming** [MV14].
Stencils [Mir16]. **Step**
 [AC10, Eng15, HKLN16, HKL16, JN15, Ket11, Lau17, LAFS16, Pot16, SK13, WCF19, ZSZ15, KGM11]. **Stepping**
 [CC13, CK14, CHL12, GMS18, GS11, HJS13, LLX19, SMSF15, SW19, SZ13, Wal10, Wal14b]. **Steps** [CWYZ19]. **Stepsize**
 [HYZ16]. **Stiff** [CCKW15, DP11, DP17, HSZ18, KPK11, LL15, LO13b, OPW19].
Stiffness [MZ14]. **Stochastic**
 [ASS16, AHS16, ACLW16, BCDS17, BMK10, BS18, BPS12, BPRR19, BJ13, BG14b, BRO10, Bré13, BK10, CHL17, CP13, CHP13, CQR13a, CH16b, CTZ18, CHJ19a, CHJ19b, CE18, CLS13, CvN10, CR18, CH18d, CH19, DSZ17, Dör12, DHP13, Ebn14, Eng15, FLZ17, FKLL18, Gaz14, GPS16, GLT⁺17, GN18a, GLL11, GRK18, HZZ11, HSW17, HWZ17, KSW14, KY18, KLS10, LR18a, LWD17, LMY18, Liu13a, Luc11, Mao15, MMJ⁺17, MA18, NSS19, NHNY17, PW14, PS16, Röβ10, SDM18a, SDM18b, SZZ18, TT10, WXZ18, YDG10, YZ11, ZG12, ZTRK15, ZZJ10, ZJB16, Zhe17, Zou18].
Stokes
 [FHM16, ALM18, ABMV14, ABPV12, BG10a, BHHS15, BCGS10, BMW19, Bea15, BM11, BLM10, BBDR12, BO11, BdSS13, BRY15, BC17b, CGS18, CWZ10, CGOT16, CGM16, CGH⁺10, CP13, CHP13, CKP11, CGS13b, CDNP18, CELR11, CHYL11, CGHW11, CGSW13, CW16, CQ17, CY10, DJY14, DFW15, DGGQ16, Dör12, ER18, EGHL10, FN13, Fei19, Fis15, GG15, GTW⁺12, GJS17, GHL18, Hes15, JN15, KK10, Kas13, KW16, KLP10, KCL13, KM12a, LLMS17, LOR11, LL11, LT13, LR18b, Liu11, LMM⁺13, Liu13b, LM14a, Log17, MS12, PRX19, RW17a, RL17, SZ13, SD19, SV15, Svä16, Tak15, Tak13, TL15, VZ19b, YDG10, ZZMC19, dVLV18]. **Strain**
 [BMR12, BMcS10]. **Strang** [EO14a, EO14b].
Strategies [ARwS19, FNP14, PST15].
Stratified [GLZ18]. **Stream** [ABMV14].
Streamline [AKK14]. **Stress**
 [CCD18, Gra15, Kim11]. **Strict**
 [Peñ07, Xia10]. **Strong**
 [ASS16, BC10, CMS16, Cha12, CWZ14, CR18, CH19, Eng15, FR16, FKLL18, HMKV13, HKLN16, Hag11, IGG18, KGM11, Ket11, MAF19, Röβ10, SwS19]. **Strongly**
 [ARYZ18, BSW18, CH18a, FR17, GHY17].
Structure [Bac13, BKT13, BM16, GGNV10, KL15, OTB18, RGMP16, SG15, WXZ18].
Structure-Preserving [WXZ18].
Structured [CGKMC19, DHRBR12, Li18, LX17, MKW14, MJRK11, Mor16].
Structures [HKS11, MV14]. **Study**
 [ABIR19, Ben17, BCCHV14, BV16, DL11, GO12, SS13a, Yi17]. **Studying** [ASS16].
Subcell [CN17]. **Subdiffusion** [AMK19, JLZ18, ILLZ18, ILMZ19, nZzSwW11].
Subdivision [MM10, Moo16]. **Subdomain**
 [LTX13]. **Subdomains**
 [CG17, CG18, DW13, GKR13]. **Subgrid**
 [BCGS10]. **Submanifolds** [FW12b]. **Subset**
 [IKP11]. **Subsonic** [BdL10].
Subsonic-Well-Balanced [BdL10].
Subspace [DKS11, GT19a, GG13, GG17, HS15, MN11, ORU18, XZO19].
Substructuring [DW12]. **Successive**
 [CC14, CCCS16]. **Suitable** [BC12a, Mor16].
Summation [LLN18].
Summation-by-Parts [LLN18]. **Sums**
 [ADGP14, ADGP16]. **Sup** [GSR17, GN18b].
Superconductivity [GLS14, WY19, You17].
Superconvergence
 [CZZ14, CSYZ15, CSYZ18, CS10, Ku11a,

Li18, LR18b, MSZW13, MM13b, RL17, TX19, WCH10, YS13, Zha13b]. **Superconvergent** [CPXZ19, CQS12]. **Superlinear** [HS15]. **Superpolynomial** [WMI10]. **Superquadratic** [Pot17]. **SUPG** [HL10, JN11]. **Supply** [DMP13]. **Supports** [GHS18]. **Suppression** [CW18]. **Sure** [Mao15]. **Surface** [ANS15, DER14, DO12, DE13, KV10, LTT13, MW12]. **Surfaces** [ADM⁺15, BS16a, BHH10, BD19, GR16, GLR18, GJOR18, HLZ15, LZ17, LOX18, LNR11, MM13a, Nic17, OR14, ORX14, RWJG13, WCH10]. **Sweat** [HLS13]. **Sweeping** [LQB14]. **Switching** [LMYY18, NHNY17]. **Sylvester** [Bec11]. **Symbol** [DGM⁺17]. **Symbol-Based** [DGM⁺17]. **Symmetric** [BY17, BMV18, BEF10, Der12, GG11, GO12, HMO19, Hu15, MSS17, VZ18a, VZ18b, VZ19a, Wil14, ZFX17, HM14]. **Symmetry** [AL14, Kim11, QD11]. **Symplectic** [CH16b, HSW17, BHHN14, HWZ17]. **System** [AP16b, BDS17a, BS19, BG11, BMS14c, BMS14b, Ber18, BCCHV14, Bré13, CFZ15, CGKMC19, CGHW11, CGSW13, CL19, CKK19, DFW15, FHM16, FR16, GS18, GO12, KCL13, LMM⁺13, MFD17, MS12, PC16, SSS11, YZ17]. **Systematic** [BK10, CF17]. **Systems** [ACG15, ARYZ18, AC19, BR15a, BKT13, BBDR12, BDdSM13, BPR17, BK10, BTDG13, BEF10, CMS16, CFMP13, Cim12, DG16, DP12, FMT12, GSS12, GMP15, GP16b, HKS11, HMO19, HVC15, Hül10, LMV13, LZ12, LZ14, LW16, LCY13, MT11, MB16, MM14, Mur14, PM14, RZ19, SVD14, TT10, WBN17, ZM16].

T [Mor16]. **T-Splines** [Mor16]. **Tailored** [FLL⁺19]. **Tamed** [DKS16]. **Tau** [AHS14b, GRK18, Rat16]. **Tau-Leap** [GRK18]. **Tau-Leaping** [AHS14b]. **Taylor** [CELR11, LL11]. **Technique** [ASS16, BP10, CG12b, GS11, GNPY14, GP16a, SDG16].

Techniques [AKGR14, BCL13, CGL⁺10, DS10, HMP14]. **Temperature** [KV10, WY19]. **Tempered** [DLQW18, ZDK18]. **Temporal** [Liu13b, PF13, WS18]. **Tension** [ANS15]. **Tensor** [BKT13, Git13, LS15, LOV15, RU13]. **Tensors** [LVW18]. **Term** [BCGS10, CCKW15, FJK13, WN18]. **Terms** [D'A12, Jin15, Luc11, Ver12]. **Tessellations** [Urs17]. **Test** [HP14]. **Tetrahedral** [Wal14a]. **Textile** [HLS13]. **th** [HZZ19, Sch16]. **th-Laplace** [Sch16]. **th-Order** [HZZ19]. **their** [WYZ14, WZ19]. **Theorem** [HNSV13, SMSF15, TZ13b]. **Theoretic** [BBE11, BES12, GS14]. **Theory** [CF12, LL15, LB13, LB16, LWW⁺15, Mac10, MTKO17, Ney13, NV14, RSSZ17, VZ18a, dTEJ19]. **Thermally** [ZZLB13]. **Thermistor** [LGS14]. **theta** [SZZ18]. **theta-Schemes** [SZZ18]. **Thick** [BCL13]. **Thickness** [DGHP16]. **Thin** [CTZ18, DGHP16, Lee13, NV14, SWWW12]. **Third** [Kol14, ZS10a]. **Thomas** [BMS14c, BMS14b, BS16a, CGS13c, Oh13]. **Three** [BCM10, BRSV11, CHWG15, CDNP18, CLL10, D'A12, Gar15, GMM12, GM19, HT16, KM12a, Mor16, TL15, dVBD⁺18, CK17]. **Three-Dimensional** [BCM10, CHWG15, KM12a, Mor16, TL15, dVBD⁺18, D'A12]. **Three-Phase** [HT16]. **Threshold** [EJ17, GWW12]. **Thresholding** [Fou11]. **Tight** [KK18a]. **Tight-Binding** [KK18a]. **Time** [AVZ15, AP16a, AP18, And13, BGL17, BCZ14, BCJT16, BdSS13, Bla18, BKN13, Bré13, CHWG15, CMS16, CHP13, Car13, CC13, CCM10, CLMV19, CZ10c, CLL10, CGSW13, CW13, CW16, CK14, CHL12, DLQW18, DJLQ19, ER18, ES16, ESV17, FW14, GLS14, GTW⁺12, GMS18, GS11, HJS13, HMP15, HN11, HOV16, HM17, HJKR16, Hül10, IKS18, JN15, KTK17, Kar18, KW16, KKN19, KHCR19, KLL16, KM12c, LTT13, LMM16,

LLS13, LTX13, LWD17, LLX19, LL19, LAFS16, Liu13b, LOV15, LVW18, MC18, MST10, MZ16, MT18, Moo19, Mur14, MAF14, NOS16, OTB18, Plo19, SMSF15, SW19, SZ13, SOG17, SwS19, Tak15, Tha13, Wal10, Wal14b, WW10a, WSZ15, WP19, WS18, YKF18, YLH18, ZW11, Zhe17, ZX19, Zou18, CF12, DHP13, HJJ⁺13, LC15, MPPS10, OR14, ORX14, BB12].

Time-Average [Bla18]. **Time-Averaging** [MST10]. **Time-Dependent** [CLMV19, ES16, GLS14, HM17, IKS18, KKW19, KKN19, KHC19, LLS13, MC18, Tak15, WW10a, WS18]. **Time-Discrete** [BKN13, Zhe17]. **Time-Discretization** [Bré13]. **Time-Domain** [CHWG15, CLL10, CW13]. **Time-Explicit** [CMS16]. **Time-Fractional** [LMM16, MAF14, Plo19, SOG17, YKF18, ZX19]. **Time-Harmonic** [CZ10c, FW14, HOV16]. **Time-Implicit** [CCM10]. **Time-Marching** [WSZ15]. **Time-Periodic** [HMP15]. **Time-Splitting** [CHP13, Car13, Tha13]. **Time-Stepping** [CC13, CK14, GMS18, GS11, LLX19, SMSF15]. **Timestepping** [Fio18, LMV13]. **Tomography** [Han11, SPH18]. **Topological** [BMO11]. **Topology** [CGR12]. **Total** [Bar12, BNS14, LG19, ZS10b, ZCY12]. **Total-Variation-Based** [ZCY12]. **Trace** [GLR18, GJOR18, LOX18, SV14]. **Tracking** [CC13, GL11, GL12, Sol18, ZF16]. **Traction** [BK12]. **Traction-Free** [BK12]. **Train** [BCS13, CGKMC19, RU13]. **Trains** [LOV15]. **Trajectory** [FJK13]. **Transfer** [CGJ13, CX13, ES16, ES19]. **Transform** [AR14, DKP10, DDP17, KM12b, LZ17, LR15, LR16, LLS13, RSW17, Tow15, Yin09, GS14]. **Transformations** [BO16]. **Transformed** [PC16]. **Transforms** [Che11b, HM14].

Transient [ALM18, ABIR19, WW10b, dFGAN10].

Transmission [AKGR14, KZ15, MNQ13, Sun11, XQ10].

Transparent [WBL⁺15]. **Transport** [AW10b, BBK15, BRK14, BFK16, CW18, CDGQ10, DHSW13, GK10, HLS13, JLQX14, KFJ16, LR13, LSW18, LCJ⁺18, Mac10, MM16]. **Transpose** [CCCS16]. **Traveling** [BORM18]. **Tree** [Bin18, DS10]. **Trefftz** [BGL17]. **Triangle** [BO15, Xu11]. **Triangles** [AJ19, AC12, Bar13]. **Triangular** [BCL16, CFH13, MJRK11, WL16, ZLY16]. **Triangulations** [AC12, RL13].

Trigonometric [AT17, CLS13, Gau15, Käm13, MS14].

Trotter [AVZ15, OPW19]. **Truly** [BG18].

Truncated [LR15, LR16]. **Truncation** [LW19]. **Tu** [Lee13, Lee15]. **Tucker** [LVW18]. **Tumors** [TW18]. **Turán** [Spa14].

Turbulence [RÁM⁺17]. **TVD** [LAFS16].

Two [AC10, ACSW10, AT16, AC16, BLFS17, BG18, CHWG15, CSYZ15, CET⁺16, CZ10c, CLJ⁺16, CZ17, CW16, CKW13, DW12, DK14, FO11, Gar15, GM19, GN17, GF12, Gos14, GTW⁺12, Grü13, GB10, Han13, HMP14, Kaw19, KGM11, KS13, KSW18, KFJ16, LTT13, LR13, LC15, LN18, LSZ11, MK18, MW19, OZ13, RG16, Rid16, RL15, SS13a, SK13, SV14, SDKS13, SY12, SY15, WX18, WCF19, YB11, Yi17, YHX17, ZLL⁺14, nZzSZ12, ZSZ15, ZHZ⁺14].

Two-Dimensional [BG18, CSYZ15, CW16, DW12, Gos14, OZ13, Rid16, SDKS13, YHX17, ZLL⁺14, nZzSZ12, BLFS17, CLJ⁺16, GTW⁺12, KFJ16].

Two-Grid [RL15, YB11, ZHZ⁺14].

Two-Layer [CZ17]. **Two-Layered** [CZ10c].

Two-Level [CKW13, Han13, HMP14, LC15, WX18].

Two-Phase [AT16, Grü13, KS13, KSW18, LR13, MW19, SS13a, SY15]. **Two-Scale** [LN18, LSZ11]. **Two-Sided** [MK18, SV14].

Two-Sphere [ACSW10]. **Two-Stage** [CET⁺16]. **Two-Step** [AC10, SK13, WCF19, ZSZ15, KGM11].

Type [ADGP16, AGK⁺11, BJK16b, BGGyS12, BHX10, Bur12, DCdL18, EO14b,

Gud12, Jin11, Kas13, MBMS11, NHNY17, Pot16, SMSF15, SWWW12, TL15, Xia12, YB13, nZzSwW11, dTEJ18, dTEJ19, FLZ17, LO17, LX14b, BG14a, You17]. **Type-II** [You17].

Ulam [JML13]. **Ultra** [HP14]. **Ultra-weak** [HP14]. **Ultraconvergence** [mHLZ16]. **Ultrasound** [AKK⁺11]. **Ultraspherical** [CI12]. **Unbounded** [CX13, Rat16, mXqW10, YZ14]. **Uncertainty** [CRR16, DS11, DFS19, HPS17]. **Unconditional** [BDN18, LS13a, RSSZ17, BC17b]. **Unconditionally** [BBMZ19, GRT14, LGS14]. **Unconstrained** [LXY13]. **Uncoupling** [LTT13]. **Undercompressive** [CER14]. **Unfitted** [BE18, DER14, Mas13]. **Uniaxial** [CZ10c, CW13]. **Unified** [BPR17, BTDG13, CY10, DD12, EV15, GL15, HY18, Kar18]. **Uniform** [BC12b, BC14, Bea15, HN11, MT18, PC16, WW10a]. **Uniform-in-Time** [MT18]. **Uniformly** [BCZ14, BCJT16, BS19, CW19, GMR15, HK16, Kaw19, SW19]. **Unilateral** [CH13]. **Uniqueness** [Urs17]. **Unit** [FHN⁺13, LX14a, RN17, Zha17]. **Unity** [AKT14, PGvD12]. **Universality** [DT17]. **Unknown** [DH15a]. **Unsplit** [Zha13a]. **Unsteady** [DEV13, YDG10]. **Unstructured** [CFH13, FJ17, WW10b, ZX14]. **upon** [BIT13]. **Upstream** [PV16]. **Upwind** [BRK14, GK10, SS17b]. **Upwind-Mixed** [BRK14]. **Upwinding** [HT16]. **Using** [ACSW12, ACSW14, Bea15, CGT15, CC14, CCCS16, CFNP18, CBHW13, DER14, Erv13, GMR15, GL17, GRK18, HJWZ16, JML13, KL13, LLS16, LLS18a, LR14, Luc11, MH18, Mir14, Mir19, MT11, MTKO17, Seg10, Sel10, Tow15, VH14, WXZ18, BKSY17, HVC15, NFM18]. **Uzawa** [SYY19].

Valid [CZZ15]. **Validations** [LA11b]. **Value** [BGGyS12, CM18, CX10, FW13b, GR18, Ham19, KCDQ15, Kaw19, LM11a, Mas15a, Mas15b, NZ12, WYZ14, Wan15, ZZK15]. **Valued** [GW18, HVC15]. **Values** [AKT14, BO11, GL18, Han13, KLW16]. **Vanishing** [BMR12, CLMV19]. **Variable** [AR14, CGOT16, CCD18, CLJ⁺16, CWYZ19, CE18, CDGQ10, DAA13, GS11, HKLN16, HYZ16, LJC17, NWZ17, PH16, SW19, SX18, WY13, WCF19]. **Variable-Coefficient** [WY13]. **Variable-Order** [SW19]. **Variables** [EST18]. **Variante** [Pot17]. **Variate** [GL10]. **Variation** [Bar12, BNS14, BO16, LG19, ZS10b, ZCY12]. **Variational** [AD18, BRO10, BOS10, CGR12, DH15a, Gal17, GU14, HSW13, HW17, JL10, JMO17, KSW14, KY18, MO14, MPSP10, OP12, TW17, TD15, WHIC10, XA16, You17, ZZLB13]. **Varying** [GKR13, IGVG19, Liu13b, SVZ12]. **Vector** [GJOR18, HLZ15, Oh13, PS19, PW12]. **Vector-Laplacians** [GJOR18]. **Vectorial** [DLT13]. **Vectors** [Zha17]. **Velocity** [CC13, CDGQ10, LOR11, RT16, CKP11]. **Velocity-Vorticity-Helicity** [LOR11]. **VEM** [GM19]. **Ventcell** [HH14]. **Verified** [LZ14, LO13a, MTKO17, WNPN14]. **Version** [BCD⁺11, Gos14, GB10, HMP11, MRL14, MBMS11, YG15, ZW13]. **Versus** [ZTRK15]. **Vertex** [EP16]. **Vertex-Centered** [EP16]. **Via** [KMU16, AKK14, BRD15, CL18, GL13, GH12, GT19b, HSW17, HWZ17, LM11a, MST10, NP16, Yin09, ZF16, ZB15]. **Virtual** [ABMV14, ABSV16, BBM13, CGS18, CGM16, CC18, CC19, ZZMC19, dVBD⁺18, dVLV18]. **Viscosity** [CGOT16, CCD18, FO11]. **Viscous** [BCM10, Ing11]. **Vlasov** [BS18, CDM13, CGLM14, EO14a, EO14b, FR16, JW13, MFD17, PC16]. **Vlasov-Type**

- [EO14b]. **Vogelius** [CELR11]. **Volatility** [CR18, Zhe17]. **Volterra** [HN11, Li10, LTX13, LL15, LB19, SWG14, YB13, YG15, ZLB16]. **Volume** [ACCE10, AW10b, BCCHV14, CMS16, CZZ15, CDNP18, CK16, Che10, Cla13, CM10, CY10, DO12, DEM15, Era12, Era13, EP16, GG10a, GLZ19, HH14, KM12a, KST15, Kwa12, LMO12, LNR11, LYZ15, LL13, MM16, MW19, Nor15, Nor16, NFM18, SS13a, VH14, WL16, Zha13a, ZGD17]. **Volume-of-Fluid** [Zha13a]. **Volume-Preserving** [MM16]. **Voronoi** [GG10a, Lau17, Mir19, Urs17]. **Vorticity** [LOR11]. **Vries** [DKR15, FS14]. **vs** [Che11a].
- Wachspress** [FGS14]. **Wagner** [BJK16b]. **Walker** [LO17]. **Walker-type** [LO17]. **Wall** [SCP18]. **Wasserstein** [Sol18]. **Water** [AGP17, BdL10, DCdL18, LTT13]. **Wave** [AP16a, AP18, AW10a, ABIR19, ACLW16, AH15, BCE14, BLFS17, BGL17, BC12b, BC14, BdBE17, BCR16, BTG12, CC14, CLX13, CLS13, DS18, DW15, DZZ19, DK14, FW14, Gau15, GMS18, HMP11, KW14a, KLS10, KP12, LWD17, LW19, MM13b, NW19, Wal14b, WZ18, XS12, nZzSZ12, ZHA19, ZW13]. **Wave-Guides** [DS18]. **Waveform** [AKGR14, HJS13, Nic17]. **Waveguides** [KZ15]. **Wavelet** [CS11]. **Wavelets** [Bac13, XZO19]. **Wavenumber** [LM11b, MS11]. **Wavenumber-Explicit** [LM11b]. **Waves** [BCL17, BORM18, CER14, Col10, DK14, LZ17, MZ13]. **Weak** [AP16b, ASS16, AL14, BK12, Bur12, Cha12, CLP12, CH19, DS11, DF12, Kim11, LYZZ18a, Yam19, Zhe17, HP14]. **Weakly** [AF16, GHY17, LB19, PS19, QD11, XA16]. **Weighted** [BET11, CQR13b, CGS15, D'A12, Mig19, Owe19, PWZ13, SY12]. **Weighting** [EG13]. **Weights** [CSV19, GHS18]. **Well** [ACSW10, AGP17, BdL10, BCL13, DFS17, DCdL18, ELM15, KCDQ15, LA11a]. **Well-Balanced** [AGP17, BCL13, DCdL18]. **Well-Controlled** [ELM15]. **Well-Posed** [LA11a]. **Well-Posedness** [KCDQ15]. **Wellposedness** [WY13]. **WENO** [ARwS19, ABBM11, AHZ18, BBMZ19, Kol14]. **WENOZ** [CSV19]. **Westervelt** [NW19]. **Which** [Sau10]. **White** [CHL17, ZTRK15, Zou18]. **Wiener** [ZTRK15]. **Willmore** [BGN16]. **Winther** [GMM12]. **Without** [CM18, CW17, BNS14, DH15a, FJK13, KLP10, Wal14a]. **WKB** [AAN11]. **WKB-Based** [AAN11]. **Works** [KH14]. **Worst** [Dic11]. **Worst-Case** [Dic11].
- XFEM** [DFS17, LR13]. **XFEM-DG** [LR13].
- Ye** [BKS17]. **Yield** [CCD18].
- Zakai** [FSX13]. **Zakharov** [BS19]. **Zeros** [ADGP14, JO10, Seg10].

References

Ainsworth:2013:ASP

- [AABR13] Mark Ainsworth, Alejandro Al- lendes, Gabriel R. Barrenechea, and Richard Rankin. On the adaptive selection of the param- eter in stabilized finite element approximations. *SIAM Jour- nal on Numerical Analysis*, 51 (3):1585–1609, 2013. CO- DEN SJNAAM. ISSN 0036- 1429 (print), 1095-7170 (elec- tronic).

Adler:2015:EMF

- [AAEM15] J. H. Adler, T. J. Atherton, D. B. Emerson, and S. P. MacLachlan. An energy- minimization finite-element ap-

- proach for the Frank–Oseen model of nematic liquid crystals. *SIAM Journal on Numerical Analysis*, 53(5):2226–2254, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AAN11] Anton Arnold, Naoufel Ben Abdallah, and Claudia Negulescu. WKB-based schemes for the oscillatory 1D Schrödinger equation in the semiclassical limit. *SIAM Journal on Numerical Analysis*, 49(4):1436–1460, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1436_s1.
- [AB17] Gabriel Acosta and Juan Pablo Borthagaray. A fractional Laplace equation: Regularity of solutions and finite element approximations. *SIAM Journal on Numerical Analysis*, 55(2):472–495, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ABBM11] F. Aràndiga, A. Baeza, A. M. Belda, and P. Mulet. Analysis of WENO schemes for full and global accuracy. *SIAM Journal on Numerical Analysis*, 49(2):893–915, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ABGJ13] Habib Ammari, Elie Bretin, Josselin Garnier, and Vincent Jugnon. Coherent interferometry algorithms for photoacoustic imaging. *SIAM Journal on Numerical Analysis*, 50(5):2259–2280, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ABIR19] J. Albella, H. Ben Dhia, S. Imperiale, and J. Rodríguez. Mathematical and numerical study of transient wave scattering by obstacles with a new class of arlequin coupling. *SIAM Journal on Numerical Analysis*, 57(5):2436–2468, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ABLV13] Paola F. Antonietti, Lourenço Beiraño da Veiga, Carlo Lovadina, and Marco Verani. Hierarchical a posteriori error estimators for the mimetic discretization of elliptic problems. *SIAM Journal on Numerical Analysis*, 51(1):654–675, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Arnold:2011:WBS

Ammari:2013:CIA

Albella:2019:MNS

Acosta:2017:FLE

Antonietti:2013:HPE

Arandiga:2011:AWS

Antonietti:2014:SVE

- [ABMV14] P. F. Antonietti, L. Beirão da Veiga, D. Mora, and M. Verani. A stream virtual element formulation of the Stokes problem on polygonal meshes. *SIAM Journal on Numerical Analysis*, 52(1):386–404, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Araya:2012:CAR

- [ABPV12] Rodolfo Araya, Gabriel R. Barrenechea, Abner H. Poza, and Frédéric Valentin. Convergence analysis of a residual local projection finite element method for the Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 50(2):669–699, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Araujo:2012:SFD

- [ABS12] Adérito Araújo, Sílvia Barbeiro, and Pedro Serranho. Stability of finite difference schemes for complex diffusion processes. *SIAM Journal on Numerical Analysis*, 50(3):1284–1296, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Araujo:2015:CFD

- [ABS15] Adérito Araújo, Sílvia Barbeiro, and Pedro Serranho. Convergence of finite difference schemes for nonlinear

complex reaction-diffusion processes. *SIAM Journal on Numerical Analysis*, 53(1):228–250, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Apel:2011:PMG

- [ABSV11] Thomas Apel, Olaf Benedix, Dieter Sirch, and Boris Vexler. A priori mesh grading for an elliptic problem with Dirac right-hand side. *SIAM Journal on Numerical Analysis*, 49(3):992–1005, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p992_s1.

Antonietti:2016:VEM

- [ABSV16] P. F. Antonietti, L. Beirão da Veiga, S. Scacchi, and M. Verani. A C^1 virtual element method for the Cahn–Hilliard equation with polygonal meshes. *SIAM Journal on Numerical Analysis*, 54(1):34–56, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ainsworth:2015:SHA

- [ABW15] Mark Ainsworth, Gabriel R. Barrenechea, and Andreas Wachtel. Stabilization of high aspect ratio mixed finite elements for incompressible flow. *SIAM Journal on Numerical Analysis*, 53(2):1107–1120, 2015. CODEN SJNAAM. ISSN

- 0036-1429 (print), 1095-7170 (electronic).
- [AC10] **Akrivis:2010:PEE**
Georgios Akrivis and Panagiotis Chatzipantelidis. A posteriori error estimates for the two-step backward differentiation formula method for parabolic equations. *SIAM Journal on Numerical Analysis*, 48(1):109–132, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AC12] **Altmann:2012:NFE**
R. Altmann and C. Carstensen. P_1 -nonconforming finite elements on triangulations into triangles and quadrilaterals. *SIAM Journal on Numerical Analysis*, 50(2):418–438, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i2/p418_s1.
- [AC16] **Arbogast:2016:TFM**
Todd Arbogast and Maicon R. Correa. Two families of $H(\text{div})$ mixed finite elements on quadrilaterals of minimal dimension. *SIAM Journal on Numerical Analysis*, 54(6):3332–3356, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AC19] **Ammari:2019:NAB**
Kaïs Ammari and Carlos Castro. Numerical approximation of the best decay rate for some dissipative systems. *SIAM Journal on Numerical Analysis*, 57(2):681–701, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ACCD13] **Achdou:2013:MFG**
Yves Achdou, Fabio Camilli, and Italo Capuzzo-Dolcetta. Mean field games: Convergence of a finite difference method. *SIAM Journal on Numerical Analysis*, 51(5):2585–2612, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ACCE10] **Angelini:2010:FVS**
O. Angelini, C. Chavant, E. Chénier, and R. Eymard. A finite volume scheme for diffusion problems on general meshes applying monotony constraints. *SIAM Journal on Numerical Analysis*, 47(6):4193–4213, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ACD10] **Achdou:2010:MFG**
Yves Achdou and Italo Capuzzo-Dolcetta. Mean field games: Numerical methods. *SIAM Journal on Numerical Analysis*, 48(3):1136–1162, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Aggul:2018:DDC**
- [ACEL18] Mustafa Aggul, Jeffrey M. Connors, Dilek Erkmén, and Alexander E. Labovsky. A defect-deferred correction method for fluid-fluid interaction. *SIAM Journal on Numerical Analysis*, 56(4):2484–2512, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Aggarwal:2015:NSC**
- [ACG15] Aekta Aggarwal, Rinaldo M. Colombo, and Paola Goatin. Nonlocal systems of conservation laws in several space dimensions. *SIAM Journal on Numerical Analysis*, 53(2):963–983, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Anton:2016:FDS**
- [ACW16] Rikard Anton, David Cohen, Stig Larsson, and Xiaojie Wang. Full discretization of semilinear stochastic wave equations driven by multiplicative noise. *SIAM Journal on Numerical Analysis*, 54(2):1093–1119, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- An:2010:WCS**
- [ACW10] Congpei An, Xiaojun Chen, Ian H. Sloan, and Robert S. Womersley. Well conditioned spherical designs for integration and interpolation on the two-sphere. *SIAM Journal on Numerical Analysis*, 48(6):2135–2157, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2135_s1.
- An:2012:RLS**
- [ACW12] Congpei An, Xiaojun Chen, Ian H. Sloan, and Robert S. Womersley. Regularized least squares approximations on the sphere using spherical designs. *SIAM Journal on Numerical Analysis*, 50(3):1513–1534, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See corrigendum [ACW14].
- An:2014:CRL**
- [ACW14] Congpei An, Xiaojun Chen, Ian H. Sloan, and Robert S. Womersley. Corrigendum: Regularized Least Squares Approximations on the Sphere Using Spherical Designs. *SIAM Journal on Numerical Analysis*, 52(4):2205–2206, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [ACW12].
- Alnashri:2018:GDM**
- [AD18] Yahya Alnashri and Jérôme Droniou. A gradient discretization method to analyze numerical schemes for nonlinear variational inequalities, application to the seepage problem. *SIAM Journal on Numerical Analysis*,

- 56(4):2375–2405, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ADM17]
- [ADGP14] Iván Area, Dimitar K. Dimitrov, Eduardo Godoy, and Vanessa Paschoa. Approximate calculation of sums I: Bounds for the zeros of Gram polynomials. *SIAM Journal on Numerical Analysis*, 52(4):1867–1886, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ADM21]
- [ADGP16] Iván Area, Dimitar K. Dimitrov, Eduardo Godoy, and Vanessa G. Paschoa. Approximate calculation of sums II: Gaussian type quadrature. *SIAM Journal on Numerical Analysis*, 54(4):2210–2227, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [AF12]
- [ADM⁺15] Paola F. Antonietti, Andreas Dedner, Pravin Madhavan, Simone Stangalino, Björn Stinner, and Marco Verani. High order discontinuous Galerkin methods for elliptic problems on surfaces. *SIAM Journal on Numerical Analysis*, 53(2):1145–1171, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [AF16]
- Antonopoulos:2017:EEG**
D. C. Antonopoulos, V. A. Dougalis, and D. E. Mitsotakis. Error estimates for Galerkin approximations of the Serre equations. *SIAM Journal on Numerical Analysis*, 55(2):841–868, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See corrigendum [ADM21].
- Antonopoulos:2021:CEE**
D. C. Antonopoulos, V. A. Dougalis, and D. E. Mitsotakis. Corrigendum: Error estimates for Galerkin approximations of the Serre equations. *SIAM Journal on Numerical Analysis*, 59(6):3098–3101, 2021. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [ADM17].
- Apel:2012:CNS**
Thomas Apel and Thomas G. Flaig. Crank–Nicolson schemes for optimal control problems with evolution equations. *SIAM Journal on Numerical Analysis*, 50(3):1484–1512, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Azimzadeh:2016:WCM**
P. Azimzadeh and P. A. Forsyth. Weakly chained matrices, policy iteration, and impulse control. *SIAM Journal on Numerical Analysis*, 54(3):1341–1364, 2016. CO-

- 3106–3127, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AHS16] David F. Anderson, Desmond J. Higham, and Yu Sun. Multi-level Monte Carlo for stochastic differential equations with small noise. *SIAM Journal on Numerical Analysis*, 54(2): 505–529, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AHZ18] Todd Arbogast, Chieh-Sen Huang, and Xikai Zhao. Accuracy of WENO and adaptive order WENO reconstructions for solving conservation laws. *SIAM Journal on Numerical Analysis*, 56(3):1818–1847, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AJ19] Mark Ainsworth and Shuai Jiang. Preconditioning the mass matrix for high order finite element approximation on triangles. *SIAM Journal on Numerical Analysis*, 57(1):355–377, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AKGR14] Mohammad D. Al-Khaleel, Martin J. Gander, and Albert E. Ruehli. Optimization of transmission conditions in waveform relaxation techniques for RC circuits. *SIAM Journal on Numerical Analysis*, 52(2):1076–1101, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AKK⁺11] Habib Ammari, Hyeonbae Kang, Eunjoo Kim, Mikyoung Lim, and Kaouthar Louati. A direct algorithm for ultrasound imaging of internal corrosion. *SIAM Journal on Numerical Analysis*, 49(3):1177–1193, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1177_s1.
- [AKK14] Owe Axelsson, János Karátson, and Balázs Kovács. Robust preconditioning estimates for convection-dominated elliptic problems via a streamline Poincaré–Friedrichs inequality. *SIAM Journal on Numerical Analysis*, 52(6):2957–2976, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AKP14] Giorgos Arampatzis, Markos A. Katsoulakis, and Petr Plecháč. Parallelization, processor communication and error analysis

in lattice kinetic Monte Carlo. *SIAM Journal on Numerical Analysis*, 52(3):1156–1182, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Akrivis:2015:SIE

[Akr15] Georgios Akrivis. Stability of implicit-explicit backward difference formulas for nonlinear parabolic equations. *SIAM Journal on Numerical Analysis*, 53(1):464–484, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Austin:2014:NAB

[AKT14] Anthony P. Austin, Peter Kravanja, and Lloyd N. Trefethen. Numerical algorithms based on analytic function values at roots of unity. *SIAM Journal on Numerical Analysis*, 52(4):1795–1821, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Arnold:2014:MME

[AL14] Douglas N. Arnold and Jeonghun J. Lee. Mixed methods for elastodynamics with weak symmetry. *SIAM Journal on Numerical Analysis*, 52(6):2743–2769, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ahmed:2018:RLF

[ALM18] Naveed Ahmed, Alexander Linke, and Christian Merdon.

On really locking-free mixed finite element methods for the transient incompressible Stokes equations. *SIAM Journal on Numerical Analysis*, 56(1):185–209, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Abdulle:2013:PPE

[ALS13] Assyr Abdulle, Ping Lin, and Alexander V. Shapeev. A priori and a posteriori $W^{1,\infty}$ error analysis of a QC method for complex lattices. *SIAM Journal on Numerical Analysis*, 51(4):2357–2379, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ainsworth:2017:AAF

[AM17] Mark Ainsworth and Zhiping Mao. Analysis and approximation of a fractional Cahn–Hilliard equation. *SIAM Journal on Numerical Analysis*, 55(4):1689–1718, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Al-Maskari:2019:NAS

[AMK19] Mariam Al-Maskari and Samir Karaa. Numerical approximation of semilinear subdiffusion equations with nonsmooth initial data. *SIAM Journal on Numerical Analysis*, 57(3):1524–1544, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [AN10] **Aylaj:2010:CNS**
 B. Aylaj and A. Noussair. Convergence of numerical schemes to a nonlinear kinetic model of population dynamics with nonlocal boundary conditions. *SIAM Journal on Numerical Analysis*, 48(5):1707–1732, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [And13] **Anderson:2013:efd**
 David F. Anderson. An efficient finite difference method for parameter sensitivities of continuous time Markov chains. *SIAM Journal on Numerical Analysis*, 50(5):2237–2258, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ANP17] **Apel:2017:ANM**
 Thomas Apel, Serge Nicaise, and Johannes Pfefferer. Adapted numerical methods for the Poisson equation with L^2 boundary data in NonConvex domains. *SIAM Journal on Numerical Analysis*, 55(4):1937–1957, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ANS15] **Antil:2015:OCF**
 Harbir Antil, Ricardo H. Nochetto, and Patrick Sodr . Optimal control of a free boundary problem with surface tension effects: a priori error analysis. *SIAM Journal on Numerical Analysis*, 53(5):2279–2306, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AP16a] **Abdulle:2016:PEA**
 Assyr Abdulle and Timoth e Pouchon. A priori error analysis of the finite element heterogeneous multiscale method for the wave equation over long time. *SIAM Journal on Numerical Analysis*, 54(3):1507–1534, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AP16b] **Achdou:2016:CFD**
 Yves Achdou and Alessio Porretta. Convergence of a finite difference scheme to weak solutions of the system of partial differential equations arising in mean field games. *SIAM Journal on Numerical Analysis*, 54(1):161–186, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AP16c] **Adcock:2016:MPM**
 Ben Adcock and Rodrigo B. Platte. A mapped polynomial method for high-accuracy approximations on arbitrary grids. *SIAM Journal on Numerical Analysis*, 54(4):2256–2281, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AP18] **Abdulle:2018:EML**
 Assyr Abdulle and Timoth e Pouchon. Effective models for

- long time wave propagation in locally periodic media. *SIAM Journal on Numerical Analysis*, 56(5):2701–2730, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Arà13]
- [AR10a] Mark Ainsworth and Richard Rankin. Fully computable error bounds for discontinuous Galerkin finite element approximations on meshes with an arbitrary number of levels of hanging nodes. *SIAM Journal on Numerical Analysis*, 47(6):4112–4141, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Ainsworth:2010:FCE**
- [AR10b] Andreas App and Ulrich Reif. Piecewise linear orthogonal approximation. *SIAM Journal on Numerical Analysis*, 48(3):840–856, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **App:2010:PLO**
- [AR14] Ben Adcock and Mark Richardson. New exponential variable transform methods for functions with endpoint singularities. *SIAM Journal on Numerical Analysis*, 52(4):1887–1912, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Adcock:2014:NEV**
- [ARWS19] Sergio Amat, Juan Ruiz, and Chi wang Shu. On new strategies to control the accuracy of WENO algorithms close to discontinuities. *SIAM Journal on Numerical Analysis*, 57(3):1205–1237, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Amat:2019:NSC**
- [ARYZ18] Habib Ammari, Matias Ruiz, Sanghyeon Yu, and Hai Zhang. Field expansions for systems of strongly coupled plasmonic nanoparticles. *SIAM Journal on Numerical Analysis*, 56(4):2029–2044, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Ammari:2018:FES**
- [ASS16] A. Alamo and J. M. Sanz-Serna. A technique for studying strong and weak local errors of splitting stochastic integrators. *SIAM Journal on Numerical Analysis*, 54(6):3239–3257, 2016. CODEN SJNAAM. **Alamo:2016:TSS**
- [Arà13] F. Aràndiga. On the order of nonuniform monotone cubic Hermite interpolants. *SIAM Journal on Numerical Analysis*, 51(5):2613–2633, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Arandiga:2013:ONM**

- ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ASV15] Paola F. Antonietti, Marco Sarti, and Marco Verani. Multigrid algorithms for hp -discontinuous Galerkin discretizations of elliptic problems. *SIAM Journal on Numerical Analysis*, 53(1):598–618, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ASW10] M. Asadzadeh, A. H. Schatz, and W. Wendland. Asymptotic error expansions for the finite element method for second order elliptic problems in R^N , $N \geq 2$. I: Local interior expansions. *SIAM Journal on Numerical Analysis*, 48(5):2000–2017, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i5/p2000_s1.
- [AT16] Todd Arbogast and Abraham L. Taicher. A linear degenerate elliptic equation arising from two-phase mixtures. *SIAM Journal on Numerical Analysis*, 54(5):3105–3122, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AT17] Anthony P. Austin and Lloyd N. Trefethen. Trigonometric interpolation and quadrature in perturbed points. *SIAM Journal on Numerical Analysis*, 55(5):2113–2122, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AU14] Burak Aksoylu and Zuhul Unlu. Conditioning analysis of nonlocal integral operators in fractional Sobolev spaces. *SIAM Journal on Numerical Analysis*, 52(2):653–677, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AVZ14] Assyr Abdulle, Gilles Vilmart, and Konstantinos C. Zygalakis. High order numerical approximation of the invariant measure of ergodic SDEs. *SIAM Journal on Numerical Analysis*, 52(4):1600–1622, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AVZ15] Assyr Abdulle, Gilles Vilmart, and Konstantinos C. Zygalakis. Long time accuracy of Lie-Trotter splitting methods for Langevin dynamics. *SIAM Journal on Numerical Analysis*, 53(1):1–16, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- DEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AW10a] **Ainsworth:2010:OBS**
 Mark Ainsworth and Hafiz Abdul Wajid. Optimally blended spectral-finite element scheme for wave propagation and non-standard reduced integration. *SIAM Journal on Numerical Analysis*, 48(1):346–371, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AW10b] **Arbogast:2010:CFC**
 Todd Arbogast and Wen-Hao Wang. Convergence of a fully conservative volume corrected characteristic method for transport problems. *SIAM Journal on Numerical Analysis*, 48(3):797–823, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AWJ16] **Asthana:2016:RCF**
 Kartikey Asthana, Jerry Watkins, and Antony Jameson. On the rate of convergence of flux reconstruction for steady-state problems. *SIAM Journal on Numerical Analysis*, 54(5):2910–2937, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AX13] **Arbogast:2013:MMM**
 Todd Arbogast and Hailong Xiao. A multiscale mortar mixed space based on homogenization for heterogeneous elliptic problems. *SIAM Journal on Numerical Analysis*, 51(1):377–399, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [AZC14] **Anitescu:2014:LMA**
 Mihai Anitescu, Xiaoyan Zeng, and Emil M. Constantinescu. A low-memory approach for best-state estimation of hidden Markov models with model error. *SIAM Journal on Numerical Analysis*, 52(1):468–495, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bac13] **Bachmayr:2013:IPG**
 Markus Bachmayr. Integration of products of Gaussians and wavelets with applications to electronic structure calculations. *SIAM Journal on Numerical Analysis*, 51(5):2491–2513, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bar12] **Bartels:2012:TVM**
 Sören Bartels. Total variation minimization with finite elements: Convergence and iterative solution. *SIAM Journal on Numerical Analysis*, 50(3):1162–1180, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Bar13] **Bartels:2013:ALB** Sören Bartels. Approximation of large bending isometries with discrete Kirchhoff triangles. *SIAM Journal on Numerical Analysis*, 51(1):516–525, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bar14] **Bartels:2014:QOE** Sören Bartels. Quasi-optimal error estimates for implicit discretizations of rate-independent evolutions. *SIAM Journal on Numerical Analysis*, 52(2):708–716, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bar17] **Bartels:2017:NSF** Sören Bartels. Numerical solution of a Föppl-von Kármán model. *SIAM Journal on Numerical Analysis*, 55(3):1505–1524, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BB12] **Benitez:2012:NAS** Marta Benítez and Alfredo Bermúdez. Numerical analysis of a second order pure Lagrange–Galerkin method for convection–diffusion problems. Part I: Time discretization. *SIAM Journal on Numerical Analysis*, 50(2):858–882, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BB13] **Benitez:2013:NAS** Marta Benítez and Alfredo Bermúdez. Numerical analysis of a second order pure Lagrange–Galerkin method for convection–diffusion problems. Part II: Fully discretized scheme and numerical results. *SIAM Journal on Numerical Analysis*, 50(6):2824–2844, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BB16] **Bansch:2016:PEE** E. Bänsch and A. Brenner. A posteriori error estimates for pressure-correction schemes. *SIAM Journal on Numerical Analysis*, 54(4):2323–2358, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBDR12] **Belenki:2012:FEA** L. Belenki, L. C. Berselli, L. Diening, and M. Růžička. On the finite element approximation of p -Stokes systems. *SIAM Journal on Numerical Analysis*, 50(2):373–397, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i2/p373_s1.
- [BBE11] **Breidt:2011:MTC** J. Breidt, T. Butler, and D. Estep. A measure-theoretic computational method for inverse sensitivity problems I: Method

- and analysis. *SIAM Journal on Numerical Analysis*, 49(5):1836–1859, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1836_s1.
- [BBHJ15] **Barboteu:2015:NAH**
Mikaël Barboteu, Krzysztof Bartosz, Weimin Han, and Tomasz Janiczko. Numerical analysis of a hyperbolic hemivariational inequality arising in dynamic contact. *SIAM Journal on Numerical Analysis*, 53(1):527–550, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBHS14] **Belgacem:2014:SFE**
Faker Ben Belgacem, Christine Bernardi, Frédéric Hecht, and Stéphanie Salmon. Stabilized finite elements for a reaction-dispersion saddle-point problem with NonConstant coefficients. *SIAM Journal on Numerical Analysis*, 52(5):2207–2226, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBK15] **Becker:2015:ACC**
Roland Becker, Melanie Bittl, and Dmitri Kuzmin. Analysis of a combined CG1–DG2 method for the transport equation. *SIAM Journal on Numerical Analysis*, 53(1):445–463, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBM13] **BeiranodaVeiga:2013:VEL**
L. Beiraño da Veiga, F. Brezzi, and L. D. Marini. Virtual elements for linear elasticity problems. *SIAM Journal on Numerical Analysis*, 51(2):794–812, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBMZ19] **Baeza:2019:WRU**
Antonio Baeza, Raimund Bürger, Pep Mulet, and David Zorío. WENO reconstructions of unconditionally optimal high order. *SIAM Journal on Numerical Analysis*, 57(6):2760–2784, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BBS16] **Berrone:2016:PEE**
Stefano Berrone, Andrea Borio, and Stefano Scialò. A posteriori error estimate for a PDE-constrained optimization formulation for the flow in DFNs. *SIAM Journal on Numerical Analysis*, 54(1):242–261, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BC10] **Boiger:2010:SCG**
Wolfgang Boiger and Carsten Carstensen. On the strong convergence of gradients in stabilized degenerate convex minimization problems. *SIAM Journal on Numerical Analysis*, 47

- (6):4569–4580, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BC12a] **Badia:2012:NBF** Santiago Badia and Ramon Codina. A nodal-based finite element approximation of the Maxwell problem suitable for singular solutions. *SIAM Journal on Numerical Analysis*, 50(2):398–417, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i2/p398_s1.
- [BC12b] **Bao:2012:UEE** Weizhu Bao and Yongyong Cai. Uniform error estimates of finite difference methods for the nonlinear Schrödinger equation with wave operator. *SIAM Journal on Numerical Analysis*, 50(2):492–521, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BC14] **Bao:2014:UOE** Weizhu Bao and Yongyong Cai. Uniform and optimal error estimates of an exponential wave integrator sine pseudospectral method for the nonlinear Schrödinger equation with wave operator. *SIAM Journal on Numerical Analysis*, 52(3):1103–1127, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BC17a] **Brenner:2017:INM** Konstantin Brenner and Clément Cancès. Improving Newton’s method performance by parametrization: The case of the Richards equation. *SIAM Journal on Numerical Analysis*, 55(4):1760–1785, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BC17b] **Bruno:2017:QUS** Oscar P. Bruno and Max Cubillos. On the quasi-unconditional stability of BDF–ADI solvers for the compressible Navier–Stokes equations and related linear problems. *SIAM Journal on Numerical Analysis*, 55(2):892–922, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCCHV14] **Bessemoulin-Chatard:2014:SFV** M. Bessemoulin-Chatard, C. Chainais-Hillairet, and M.-H. Vignal. Study of a finite volume scheme for the drift-diffusion system. asymptotic behavior in the quasi-neutral limit. *SIAM Journal on Numerical Analysis*, 52(4):1666–1691, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [BCD⁺11] **Boffi:2011:DCV** Daniele Boffi, Martin Costabel, Monique Dauge, Leszek Demkowicz, and Ralf Hiptmair. Discrete compactness for the p -version of discrete differential forms. *SIAM Journal on Numerical Analysis*, 49(1):135–158, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p135_s1.
- [BCDS17] **Bachmayr:2017:FDA** Markus Bachmayr, Albert Cohen, Dinh Dũng, and Christoph Schwab. Fully discrete approximation of parametric and stochastic elliptic PDEs. *SIAM Journal on Numerical Analysis*, 55(5):2151–2186, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCE14] **Badia:2014:SCA** Santiago Badia, Ramon Codina, and Hector Espinoza. Stability, convergence, and accuracy of stabilized finite element methods for the wave equation in mixed form. *SIAM Journal on Numerical Analysis*, 52(4):1729–1752, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCG⁺10] **Bellavia:2010:CRE** S. Bellavia, C. Cartis, N. I. M. Gould, B. Morini, and Ph. L. Toint. Convergence of a regularized Euclidean residual algorithm for nonlinear least-squares. *SIAM Journal on Numerical Analysis*, 48(1):1–29, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCG15] **Boffi:2015:FEI** Daniele Boffi, Nicola Cavallini, and Lucia Gastaldi. The finite element immersed boundary method with distributed Lagrange multiplier. *SIAM Journal on Numerical Analysis*, 53(6):2584–2604, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCGS10] **Badia:2010:LTS** Santiago Badia, Ramon Codina, and Juan Vicente Gutiérrez-Santacreu. Long-term stability estimates and existence of a global attractor in a finite element approximation of the Navier–Stokes equations with numerical subgrid scale modeling. *SIAM Journal on Numerical Analysis*, 48(3):1013–1037, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCHB10] **Bencteux:2010:AQP** G. Bencteux, E. Cancés, W. W. Hager, and C. Le Bris. Analysis of a quadratic programming decomposition algorithm. *SIAM Journal on Numerical Analysis*, 47(6):4517–4539, 2010.

- CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCJ19] Imran H. Biswas, Indranil Chowdhury, and Espen R. Jakobsen. On the rate of convergence for monotone numerical schemes for nonlocal Isaacs equations. *SIAM Journal on Numerical Analysis*, 57(2):799–827, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCJT16] Weizhu Bao, Yongyong Cai, Xiaowei Jia, and Qinglin Tang. A uniformly accurate multiscale time integrator pseudospectral method for the Dirac equation in the nonrelativistic limit regime. *SIAM Journal on Numerical Analysis*, 54(3):1785–1812, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCKZ13] J. Brannick, Y. Chen, J. Kraus, and L. Zikatanov. Algebraic multilevel preconditioners for the graph Laplacian based on matching in graphs. *SIAM Journal on Numerical Analysis*, 51(3):1805–1827, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCL13] Benjamin Boutin, Frédéric Coquel, and Philippe G. LeFloch. Coupling techniques for nonlinear hyperbolic equations. III. The well-balanced approximation of thick interfaces. *SIAM Journal on Numerical Analysis*, 51(2):1108–1133, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCL16] Roland Becker, Daniela Capatina, and Robert Luce. Local flux reconstructions for standard finite element methods on triangular meshes. *SIAM Journal on Numerical Analysis*, 54(4):2684–2706, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCL17] Gang Bao, Chuchu Chen, and Peijun Li. Inverse random source scattering for elastic waves. *SIAM Journal on Numerical Analysis*, 55(6):2616–2643, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BCLP10] L. Beirão da Veiga, C. Chinosi, C. Lovadina, and L. F. Pavarino. Robust BDDC preconditioners for Reissner–Mindlin plate bending problems and MITC elements. *SIAM*

- Journal on Numerical Analysis*, 47(6):4214–4238, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BCS13]
- Bost:2010:CAP**
- [BCM10] C. Bost, G.-H. Cottet, and E. Maitre. Convergence analysis of a penalization method for the three-dimensional motion of a rigid body in an incompressible viscous fluid. *SIAM Journal on Numerical Analysis*, 48(4):1313–1337, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BCS18]
- BeiranodaVeiga:2012:OSM**
- [BCPS12] L. Beiraño da Veiga, D. Cho, L. F. Pavarino, and S. Scacchi. Overlapping Schwarz methods for isogeometric analysis. *SIAM Journal on Numerical Analysis*, 50(3):1394–1416, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BCST19]
- Bellec:2016:DAE**
- [BCR16] Stevan Bellec, Mathieu Colin, and Mario Ricchiuto. Discrete asymptotic equations for long wave propagation. *SIAM Journal on Numerical Analysis*, 54(6):3280–3299, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BCZ14]
- Brannstrom:2013:CEB**
- Åke Brännström, Linus Carlsson, and Daniel Simpson. On the convergence of the escalator boxcar train. *SIAM Journal on Numerical Analysis*, 51(6):3213–3231, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bringmann:2018:ALS**
- P. Bringmann, C. Carstensen, and G. Starke. An adaptive least-squares FEM for linear elasticity with optimal convergence rates. *SIAM Journal on Numerical Analysis*, 56(1):428–447, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bao:2019:EER**
- Weizhu Bao, Rémi Carles, Chunmei Su, and Qinglin Tang. Error estimates of a regularized finite difference method for the logarithmic Schrödinger equation. *SIAM Journal on Numerical Analysis*, 57(2):657–680, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bao:2014:UAM**
- Weizhu Bao, Yongyong Cai, and Xiaofei Zhao. A uniformly accurate multiscale time integrator pseudospectral method for the Klein–Gordon equation in the nonrelativistic limit

regime. *SIAM Journal on Numerical Analysis*, 52(5):2488–2511, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bachmayr:2016:ALR

[BD16a] Markus Bachmayr and Wolfgang Dahmen. Adaptive low-rank methods: Problems on Sobolev spaces. *SIAM Journal on Numerical Analysis*, 54(2):744–796, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bonito:2016:COH

[BD16b] Andrea Bonito and Alan Demlow. Convergence and optimality of higher-order adaptive finite element methods for eigenvalue clusters. *SIAM Journal on Numerical Analysis*, 54(4):2379–2388, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bourgeois:2017:T

[BD17] Laurent Bourgeois and Jérôme Dardé. The “Exterior approach” applied to the inverse obstacle problem for the heat equation. *SIAM Journal on Numerical Analysis*, 55(4):1820–1842, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bonito:2019:PEE

[BD19] Andrea Bonito and Alan Demlow. A posteriori error esti-

mates for the Laplace–Beltrami operator on parametric C^2 surfaces. *SIAM Journal on Numerical Analysis*, 57(3):973–996, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Baudouin:2017:CAB

[BdB17] Lucie Baudouin, Maya de Buhan, and Sylvain Ervedoza. Convergent algorithm based on Carleman estimates for the recovery of a potential in the wave equation. *SIAM Journal on Numerical Analysis*, 55(4):1578–1613, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bellavia:2013:PFS

[BdSM13] Stefania Bellavia, Valentina De Simone, Daniela di Serafino, and Benedetta Morini. A preconditioning framework for sequences of diagonally modified linear systems arising in optimization. *SIAM Journal on Numerical Analysis*, 50(6):3280–3302, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bouchut:2010:SWB

[BdL10] François Bouchut and Tomás Morales de Luna. A subsonic-well-balanced reconstruction scheme for shallow water flows. *SIAM Journal on Numerical Analysis*, 48(5):1733–1758, 2010. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- Besse:2017:HOE**
- [BDLV17] C. Besse, G. Dujardin, and I. Lacroix-Violet. High order exponential integrators for nonlinear Schrödinger equations with application to rotating Bose–Einstein condensates. *SIAM Journal on Numerical Analysis*, 55(3):1387–1411, ??? 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bonito:2013:AFE**
- [BDN13] Andrea Bonito, Ronald A. DeVore, and Ricardo H. Nochetto. Adaptive finite element methods for elliptic problems with discontinuous coefficients. *SIAM Journal on Numerical Analysis*, 51(6):3106–3134, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bartels:2018:USS**
- [BDN18] Sören Bartels, Lars Diening, and Ricardo H. Nochetto. Unconditional stability of semi-implicit discretizations of singular flows. *SIAM Journal on Numerical Analysis*, 56(3):1896–1914, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bonito:2018:PEE**
- [BDO18] Andrea Bonito, Alan Demlow, and Justin Owen. A priori error estimates for finite element approximations to eigenvalues and eigenfunctions of the Laplace–Beltrami operator. *SIAM Journal on Numerical Analysis*, 56(5):2963–2988, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Berthon:2012:LEM**
- [BDS12] Christophe Berthon, Bruno Dubroca, and Afeintou Sangam. A local entropy minimum principle for deriving entropy preserving schemes. *SIAM Journal on Numerical Analysis*, 50(2):468–491, ??? 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Breit:2015:FEA**
- [BDS15] Dominic Breit, Lars Diening, and Sebastian Schwarzacher. Finite element approximation of the $p(\cdot)$ -Laplacian. *SIAM Journal on Numerical Analysis*, 53(1):551–572, ??? 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Barrett:2017:NAS**
- [BDS17a] John W. Barrett, Klaus Deckelnick, and Vanessa Styles. Numerical analysis for a system coupling curve evolution to reaction diffusion on the curve. *SIAM Journal on Numerical Analysis*, 55(2):1080–1100, ??? 2017. CODEN SJNAAM. ISSN

- 0036-1429 (print), 1095-7170 (electronic).
- [BDS17b] Michele Botti, Daniele A. Di Pietro, and Pierre Sochala. A hybrid high-order method for nonlinear elasticity. *SIAM Journal on Numerical Analysis*, 55(6):2687–2717, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BE18] **Botti:2017:HHO**
Erik Burman and Alexandre Ern. An unfitted hybrid high-order method for elliptic interface problems. *SIAM Journal on Numerical Analysis*, 56(3):1525–1546, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BdSS13] R. Bermejo, P. Galán del Sastre, and L. Saavedra. A second order in time modified Lagrange–Galerkin finite element method for the incompressible Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 50(6):3084–3109, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BDSV10] L. Bos, S. De Marchi, A. Sommariva, and M. Vianello. Computing multivariate Fekete and Leja points by numerical linear algebra. *SIAM Journal on Numerical Analysis*, 48(5):1984–1999, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i5/p1984_s1.
- [Bea15] **Beale:2015:UEE**
J. Thomas Beale. Uniform error estimates for Navier–Stokes flow with an exact moving boundary using the immersed interface method. *SIAM Journal on Numerical Analysis*, 53(4):2097–2111, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bec11] **Beckermann:2011:EAR**
Bernhard Beckermann. An error analysis for rational Galerkin projection applied to the Sylvester equation. *SIAM Journal on Numerical Analysis*, 49(6):2430–2450, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2430_s1.
- [BEF10] **Burman:2010:ERK**
Erik Burman, Alexandre Ern, and Miguel A. Fernández. Explicit Runge–Kutta schemes and finite elements with symmetric stabilization for first-order linear PDE systems.

- SIAM Journal on Numerical Analysis*, 48(6):2019–2042, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2019_s1. [BET11]
- [Ben17] Federico Benvenuto. A study on regularization for discrete inverse problems with model-dependent noise. *SIAM Journal on Numerical Analysis*, 55(5):2187–2203, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ber18] Fleurianne Bertrand. First-order system least-squares for interface problems. *SIAM Journal on Numerical Analysis*, 56(3):1711–1730, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BES12] T. Butler, D. Estep, and J. Sandelin. A computational measure theoretic approach to inverse sensitivity problems II: a posteriori error analysis. *SIAM Journal on Numerical Analysis*, 50(1):22–45, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p22_s1.
- [BFH14] D. Braess, T. Fraunholz, and R. H. W. Hoppe. An equilibrated a posteriori error estimator for the interior penalty discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 52(4):2121–2136, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Becker:2011:WMG] Roland Becker, Elodie Estecahandy, and David Trujillo. Weighted marking for goal-oriented adaptive finite element methods. *SIAM Journal on Numerical Analysis*, 49(6):2451–2469, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2451_s1.
- [Bonnans:2017:EEE] J. Frédéric Bonnans and Adriano Festa. Error estimates for the Euler discretization of an optimal control problem with first-order state constraints. *SIAM Journal on Numerical Analysis*, 55(2):445–471, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Butler:2012:CMT] T. Butler, D. Estep, and J. Sandelin. A computational measure theoretic approach to inverse sensitivity problems II: a posteriori error analysis. *SIAM Journal on Numerical Analysis*, 50(1):22–45, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p22_s1.
- [Braess:2014:EPE] D. Braess, T. Fraunholz, and R. H. W. Hoppe. An equilibrated a posteriori error estimator for the interior penalty discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 52(4):2121–2136, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Brunner:2016:AMS] Fabian Brunner, Julian Fischer, and Peter Knabner. Analysis of a modified second-order mixed hybrid BDM_1 finite element method for transport problems in divergence form. *SIAM Journal on Numerical Analysis*, 54(4):2359–2378, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BFRS16] Christian Bayer, Peter K. Friz, Sebastian Riedel, and John Schoenmakers. From rough path estimates to multilevel Monte Carlo. *SIAM Journal on Numerical Analysis*, 54(3):1449–1483, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Babuska:2010:RBP] Ivo Babuška and Gabriel N. Gatica. A residual-based a posteriori error estimator for the Stokes–Darcy coupled problem. *SIAM Journal on Numerical Analysis*, 48(2):498–523, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bigot:2010:SUD] Jérémie Bigot and Sébastien Gadat. Smoothing under diffeomorphic constraints with homeomorphic splines. *SIAM Journal on Numerical Analysis*, 48(1):224–243, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Behrens:2011:MMB] Edwin M. Behrens and Johnny Guzmán. A mixed method for the biharmonic problem based on a system of first-order equations. *SIAM Journal on Numerical Analysis*, 49(2):789–817, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p789_s1.
- [Baldeaux:2014:ORM] Jan Baldeaux and Michael Gnewuch. Optimal randomized multilevel algorithms for infinite-dimensional integration on function spaces with ANOVA-Type decomposition. *SIAM Journal on Numerical Analysis*, 52(3):1128–1155, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bompis:2014:SAF] R. Bompis and E. Gobet. Stochastic approximation finite element method: Analytical formulas for multidimensional diffusion process. *SIAM Journal on Numerical Analysis*, 52(6):3140–3164, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Bohn:2017:EEM**
- [BG17] Bastian Bohn and Michael Griebel. Error estimates for multivariate regression on discretized function spaces. *SIAM Journal on Numerical Analysis*, 55(4):1843–1866, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BGL17]
- Bianchini:2018:TTD**
- [BG18] Roberta Bianchini and Laurent Gosse. A truly two-dimensional discretization of drift-diffusion equations on Cartesian grids. *SIAM Journal on Numerical Analysis*, 56(5):2845–2870, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Boffi:2019:AFE**
- [BG19] Daniele Boffi and Lucia Gastaldi. Adaptive finite element method for the Maxwell eigenvalue problem. *SIAM Journal on Numerical Analysis*, 57(1):478–494, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BGN16]
- Brenner:2012:QIP**
- [BGGyS12] Susanne C. Brenner, Shiyuan Gu, Thirupathi Gudi, and Li yeng Sung. A quadratic C^0 interior penalty method for linear fourth order boundary value problems with boundary conditions of the Cahn–Hilliard type. *SIAM Journal on Numerical Analysis*, 50(4):2088–2110, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BGN19]
- Banjai:2017:TPS**
- Lehel Banjai, Emmanuil H. Georgoulis, and Oluwaseun Lijoka. A Trefftz polynomial space–time discontinuous Galerkin method for the second order wave equation. *SIAM Journal on Numerical Analysis*, 55(1):63–86, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Barrett:2016:CPW**
- John W. Barrett, Harald Garcke, and Robert Nürnberg. Computational parametric Willmore flow with spontaneous curvature and area difference elasticity effects. *SIAM Journal on Numerical Analysis*, 54(3):1732–1762, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Barrett:2019:SDE**
- John W. Barrett, Harald Garcke, and Robert Nürnberg. Stable discretizations of elastic flow in Riemannian manifolds. *SIAM Journal on Numerical Analysis*, 57(4):1987–2018, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Brenner:2017:PAI**
- [BGSZ17] Susanne C. Brenner, Joscha Gedicke, Li-Yeng Sung, and Yi Zhang. An A *Posteriori* analysis of C^0 interior penalty methods for the obstacle problem of clamped Kirchhoff plates. *SIAM Journal on Numerical Analysis*, 55(1):87–108, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BH12]
- Brenner:2018:IPM**
- [BGyS18] Susanne C. Brenner, Joscha Gedicke, and Li yeng Sung. C^0 interior penalty methods for an elliptic distributed optimal control problem on nonconvex polygonal domains with pointwise state constraints. *SIAM Journal on Numerical Analysis*, 56(3):1758–1785, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BH17]
- Barnett:2011:BQO**
- [BH11] A. H. Barnett and A. Hassell. Boundary quasi-orthogonality and sharp inclusion bounds for large Dirichlet eigenvalues. *SIAM Journal on Numerical Analysis*, 49(3):1046–1063, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1046_s1. [BHH10]
- Bruno:2012:NDA**
- O. Bruno and D. Hoch. Numerical differentiation of approximated functions with limited order-of-accuracy deterioration. *SIAM Journal on Numerical Analysis*, 50(3):1581–1603, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Baffet:2017:KCS**
- [BH17] Daniel Baffet and Jan S. Hesthaven. A kernel compression scheme for fractional differential equations. *SIAM Journal on Numerical Analysis*, 55(2):496–520, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Burman:2019:PDM**
- [BH19] Erik Burman and Cuiyu He. Primal dual mixed finite element methods for indefinite advection-diffusion equations. *SIAM Journal on Numerical Analysis*, 57(6):2785–2811, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bespalov:2010:CNB**
- [BHH10] A. Bespalov, N. Heuer, and R. Hiptmair. Convergence of the natural hp -BEM for the electric field integral equation on polyhedral surfaces. *SIAM Journal on Numerical Analysis*, 48(4):1518–1529, 2010. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- Butcher:2014:CPS**
- [BHHN14] John C. Butcher, Yousaf Habib, Adrian T. Hill, and Terence J. T. Norton. The control of parasitism in G -symplectic methods. *SIAM Journal on Numerical Analysis*, 52(5):2440–2465, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bacuta:2015:BIS**
- [BHHS15] Constantin Bacuta, Matthew E. Hassell, George C. Hsiao, and Francisco-Javier Sayas. Boundary integral solvers for an evolutionary exterior Stokes problem. *SIAM Journal on Numerical Analysis*, 53(3):1370–1392, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Burman:2017:PFN**
- [BHL17] Erik Burman, Peter Hansbo, and Mats G. Larson. The penalty-free Nitsche method and nonconforming finite elements for the Signorini problem. *SIAM Journal on Numerical Analysis*, 55(6):2523–2539, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Brunner:2010:DGM**
- [BHX10] Hermann Brunner, Qiumei Huang, and Hehu Xie. Discontinuous Galerkin methods for delay differential equations of pantograph type. *SIAM Journal on Numerical Analysis*, 48(5):1944–1967, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i5/p1944_s1.
- Bieri:2011:SCC**
- [Bie11] Marcel Bieri. A sparse composite collocation finite element method for elliptic SPDEs. *SIAM Journal on Numerical Analysis*, 49(6):2277–2301, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2277_s1.
- Binev:2018:TAH**
- [Bin18] Peter Binev. Tree approximation for hp-adaptivity. *SIAM Journal on Numerical Analysis*, 56(6):3346–3357, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Brugnano:2013:EQI**
- [BIT13] Luigi Brugnano, Felice Iavernaro, and Donato Trigiante. Energy- and quadratic invariants-preserving integrators based upon Gauss collocation formulae. *SIAM Journal on Numerical Analysis*, 50(6):2897–2916, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Blomker:2013:GAS**
- [BJ13] Dirk Blömker and Arnulf Jentzen. Galerkin approximations for the stochastic Burgers equation. *SIAM Journal on Numerical Analysis*, 51(1):694–715, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Borthagaray:2019:CNF**
- [BJ19] Juan Pablo Borthagaray and Patrick Ciarlet Jr. On the convergence in H^1 -norm for the fractional Laplacian. *SIAM Journal on Numerical Analysis*, 57(4):1723–1743, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Biswas:2010:DQS**
- [BJK10] Imran H. Biswas, Espen R. Jakobsen, and Kenneth H. Karlsen. Difference-quadrature schemes for nonlinear degenerate parabolic integro-PDE. *SIAM Journal on Numerical Analysis*, 48(3):1110–1135, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Barrenechea:2016:AAF**
- [BJK16a] Gabriel R. Barrenechea, Volker John, and Petr Knobloch. Analysis of algebraic flux correction schemes. *SIAM Journal on Numerical Analysis*, 54(4):2427–2451, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Becker:2016:EWP**
- [BJK16b] Sebastian Becker, Arnulf Jentzen, and Peter E. Kloeden. An exponential Wagner–Platen type scheme for SPDEs. *SIAM Journal on Numerical Analysis*, 54(4):2389–2426, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Barrio:2013:GCN**
- [BJS13] Roberto Barrio, Hao Jiang, and Sergio Serrano. A general condition number for polynomials. *SIAM Journal on Numerical Analysis*, 51(2):1280–1294, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Buckwar:2010:TSL**
- [BK10] Evelyn Buckwar and Cónall Kelly. Towards a systematic linear stability analysis of numerical methods for systems of stochastic differential equations. *SIAM Journal on Numerical Analysis*, 48(1):298–321, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Berggren:2012:WMA**
- [BK12] Martin Berggren and Fotios Kasolis. Weak material approximation of holes with traction-free boundaries. *SIAM Journal on Numerical Analysis*, 50

- (4):1827–1848, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BKS11]
- Bansch:2013:PEC**
- [BKM13] E. Bänsch, F. Karakatsani, and Ch. Makridakis. A posteriori error control for fully discrete Crank–Nicolson schemes. *SIAM Journal on Numerical Analysis*, 50(6):2845–2872, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bonito:2013:TDH**
- [BKN13] Andrea Bonito, Irene Kyza, and Ricardo H. Nochetto. Time-discrete higher-order ALE formulations: Stability. *SIAM Journal on Numerical Analysis*, 51(1):577–604, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Berninger:2011:FRN**
- [BKS11] Heiko Berninger, Ralf Kornhuber, and Oliver Sander. Fast and robust numerical solution of the Richards equation in homogeneous soil. *SIAM Journal on Numerical Analysis*, 49(6):2576–2597, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2576_s1. [BKS11]
- Bangerth:2017:HNC**
- [BKS17] Wolfgang Bangerth, Imbun Kim, Dongwoo Sheen, and Jaeryun Yim. On hanging node constraints for nonconforming finite elements using the Douglas–Santos–Sheen–Ye element as an example. *SIAM Journal on Numerical Analysis*, 55(4):1719–1739, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Beckermann:2013:EAG**
- [BKT13] Bernhard Beckermann, Daniel Kressner, and Christine Tobler. An error analysis of Galerkin projection methods for linear systems with tensor product structure. *SIAM Journal on Numerical Analysis*, 51(6):3307–3326, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Breda:2018:AEE**
- [BL18] Dimitri Breda and Davide Liessi. Approximation of eigenvalues of evolution operators for linear renewal equations. *SIAM Journal on Numerical Analysis*, 56(3):1456–1481, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Blanes:2018:TAN**
- [Bla18] Sergio Blanes. Time-average on the numerical integration of nonautonomous differential

- equations. *SIAM Journal on Numerical Analysis*, 56(4): 2513–2536, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BLO18]
- Banjai:2017:FOA**
- [BLFS17] L. Banjai, M. López-Fernández, and A. Schädle. Fast and oblivious algorithms for dissipative and two-dimensional wave equations. *SIAM Journal on Numerical Analysis*, 55(2):621–639, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BLRX15]
- BeiraodaVeiga:2010:EAM**
- [BLM10] L. Beirão da Veiga, K. Lipnikov, and G. Manzini. Error analysis for a mimetic discretization of the steady Stokes problem on polyhedral meshes. *SIAM Journal on Numerical Analysis*, 48(4):1419–1443, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BLWW13]
- BeiraodaVeiga:2011:AON**
- [BLM11] L. Beirão da Veiga, K. Lipnikov, and G. Manzini. Arbitrary-order nodal mimetic discretizations of elliptic problems on polygonal meshes. *SIAM Journal on Numerical Analysis*, 49(5):1737–1760, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1737_s1. [BM11]
- Burman:2018:PDM**
- Erik Burman, Mats G. Larson, and Lauri Oksanen. Primal-dual mixed finite element methods for the elliptic Cauchy problem. *SIAM Journal on Numerical Analysis*, 56(6):3480–3509, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bao:2015:RAM**
- Gang Bao, Shuai Lu, William Rundell, and Boxi Xu. A recursive algorithm for MultiFrequency acoustic inverse source problems. *SIAM Journal on Numerical Analysis*, 53(3):1608–1628, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Baskaran:2013:CAS**
- A. Baskaran, J. S. Lowengrub, C. Wang, and S. M. Wise. Convergence analysis of a second order convex splitting scheme for the modified phase field crystal equation. *SIAM Journal on Numerical Analysis*, 51(5): 2851–2873, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Becker:2011:QOA**
- Roland Becker and Shipeng Mao. Quasi-optimality of adaptive nonconforming finite element methods for the Stokes equations. *SIAM Journal*

- on *Numerical Analysis*, 49(3): 970–991, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p970_s1.
- [BM16] Martina Bukac and Boris Muha. Stability and convergence analysis of the extensions of the kinematically coupled scheme for the fluid–structure interaction. *SIAM Journal on Numerical Analysis*, 54(5): 3032–3061, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMO11] **Bukac:2016:SCA** Sören Bartels, Rüdiger Müller, and Christoph Ortner. Robust a priori and a posteriori error analysis for the approximation of Allen–Cahn and Ginzburg–Landau equations past topological changes. *SIAM Journal on Numerical Analysis*, 49(1):110–134, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p110_s1.
- [BMR12] **Bartels:2011:RPP** Sören Bartels, Alexander Mielke, and Tomáš Roubíček. Quasi-static small-strain plasticity in the limit of vanishing hardening and its numerical approximation. *SIAM Journal on Numerical Analysis*, 50(2):951–976, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMcS10] Dietrich Braess, Pingbing Ming, and Zhong ci Shi. Shear locking in a plane elasticity problem and the enhanced assumed strain method. *SIAM Journal on Numerical Analysis*, 47(6):4473–4491, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMRB19] **Braess:2010:SLP** Raimund Bürger, Paul E. Méndez, and Ricardo Ruiz-Baier. On $H(\text{div})$ -conforming methods for double-diffusion equations in porous media. *SIAM Journal on Numerical Analysis*, 57(3):1318–1343, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMK10] Ismaël F. Bailleul, Peter L. W. Man, and Markus Kraft. A stochastic algorithm for parametric sensitivity in Smoluchowski’s coagulation equation. *SIAM Journal on Numerical Analysis*, 48(3):1064–1086, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMRB19] **Burger:2019:CMD** Raimund Bürger, Paul E. Méndez, and Ricardo Ruiz-Baier. On $H(\text{div})$ -conforming methods for double-diffusion equations in porous media. *SIAM Journal on Numerical Analysis*, 57(3):1318–1343, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [BMS10] Roland Becker, Shipeng Mao, and Zhongci Shi. A convergent nonconforming adaptive finite element method with quasi-optimal complexity. *SIAM Journal on Numerical Analysis*, 47(6):4639–4659, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMS14a] Barbora Benesová, Christof Melcher, and Endre Süli. An implicit midpoint spectral approximation of nonlocal Cahn–Hilliard equations. *SIAM Journal on Numerical Analysis*, 52(3):1466–1496, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMS14b] Fleurianne Bertrand, Steffen Müntenmaier, and Gerhard Starke. First-order system least squares on curved boundaries: Higher-order Raviart–Thomas elements. *SIAM Journal on Numerical Analysis*, 52(6):3165–3180, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMS14c] Fleurianne Bertrand, Steffen Müntenmaier, and Gerhard Starke. First-order system least squares on curved boundaries: Lowest-order Raviart–Thomas elements. *SIAM Journal on Numerical Analysis*, 52(2):880–894, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMV12] D. Breda, S. Maset, and R. Vermiglio. Approximation of eigenvalues of evolution operators for linear retarded functional differential equations. *SIAM Journal on Numerical Analysis*, 50(3):1456–1483, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMV18] Geir Bogfjellmo, Klas Modin, and Olivier Verdier. A numerical algorithm for C^2 -splines on symmetric spaces. *SIAM Journal on Numerical Analysis*, 56(4):2623–2647, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BMW19] Feng Bao, Lin Mu, and Jin Wang. A fully computable a posteriori error estimate for the Stokes equations on polytopal meshes. *SIAM Journal on Numerical Analysis*, 57(1):458–477, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [BN10] **Bonito:2010:QOC**
 Andrea Bonito and Ricardo H. Nochetto. Quasi-optimal convergence rate of an adaptive discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 48(2):734–771, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BN11] **Brenner:2011:IPM**
 Susanne C. Brenner and Michael Neilan. A C^0 interior penalty method for a fourth order elliptic singular perturbation problem. *SIAM Journal on Numerical Analysis*, 49(2):869–892, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p869_s1.
- [BN16] **Badia:2016:BDD**
 Santiago Badia and Hieu Nguyen. Balancing domain decomposition by constraints and perturbation. *SIAM Journal on Numerical Analysis*, 54(6):3436–3464, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BNP10] **Bonito:2010:GCM**
 A. Bonito, R. H. Nochetto, and M. S. Pauletti. Geometrically consistent mesh modification. *SIAM Journal on Numerical Analysis*, 48(5):1877–1899, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BNS13] **BeiranodaVeiga:2013:PEA**
 L. Beiraño da Veiga, J. Niranen, and R. Stenberg. A posteriori error analysis for the postprocessed MITC plate elements. *SIAM Journal on Numerical Analysis*, 51(1):1–23, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BNS14] **Bartels:2014:DTV**
 Sören Bartels, Ricardo H. Nochetto, and Abner J. Salgado. Discrete total variation flows without regularization. *SIAM Journal on Numerical Analysis*, 52(1):363–385, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BNY18] **Boon:2018:RDF**
 Wietse M. Boon, Jan M. Nordbotten, and Ivan Yotov. Robust discretization of flow in fractured porous media. *SIAM Journal on Numerical Analysis*, 56(4):2203–2233, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BO11] **Benzi:2011:FVC**
 Michele Benzi and Maxim A. Olshanskii. Field-of-values convergence analysis of augmented Lagrangian preconditioners for the linearized Navier–Stokes

- problem. *SIAM Journal on Numerical Analysis*, 49(2):770–788, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p770_s1. [BOS10]
- Basu:2015:LDC**
- [BO15] Kinjal Basu and Art B. Owen. Low discrepancy constructions in the triangle. *SIAM Journal on Numerical Analysis*, 53(2):743–761, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BP10]
- Basu:2016:THK**
- [BO16] Kinjal Basu and Art B. Owen. Transformations and Hardy–Krause variation. *SIAM Journal on Numerical Analysis*, 54(3):1946–1966, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BPP15]
- Beyn:2018:CST**
- [BORM18] W.-J. Beyn, D. Otten, and J. Rottmann-Matthes. Computation and stability of traveling waves in second order evolution equations. *SIAM Journal on Numerical Analysis*, 56(3):1786–1817, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BPR17]
- Burke:2010:AFE**
- Siobhan Burke, Christoph Ortner, and Endre Süli. An adaptive finite element approximation of a variational model of brittle fracture. *SIAM Journal on Numerical Analysis*, 48(3):980–1012, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Bouchon:2010:IIT**
- François Bouchon and Gunther H. Peichl. The immersed interface technique for parabolic problems with mixed boundary conditions. *SIAM Journal on Numerical Analysis*, 48(6):2247–2266, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2247_s1.
- Bochev:2015:FAP**
- P. Bochev, M. Perego, and K. Peterson. Formulation and analysis of a parameter-free stabilized finite element method. *SIAM Journal on Numerical Analysis*, 53(5):2363–2388, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Boscarino:2017:UIR**
- Sebastiano Boscarino, Lorenzo Pareschi, and Giovanni Russo. A unified IMEX Runge–Kutta approach for hyperbolic systems with multiscale relaxation.

- SIAM Journal on Numerical Analysis*, 55(4):2085–2109, ??? 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BPRR19] Alex Bespalov, Dirk Praetorius, Leonardo Rocchi, and Michele Ruggeri. Convergence of adaptive stochastic Galerkin FEM. *SIAM Journal on Numerical Analysis*, 57(5):2359–2382, ??? 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BPS11] Pavel B. Bochev, Kara Peterson, and Christopher M. Siefert. Analysis and computation of compatible least-squares methods for div-curl equations. *SIAM Journal on Numerical Analysis*, 49(1):159–181, ??? 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p159_s1.
- [BPS12] Alexei Bespalov, Catherine E. Powell, and David Silvester. A priori error analysis of stochastic Galerkin mixed approximations of elliptic PDEs with random data. *SIAM Journal on Numerical Analysis*, 50(4):2039–2063, ??? 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BR13] **Boscarino:2013:FEI**
 Sebastiano Boscarino and Giovanni Russo. Flux-explicit IMEX Runge–Kutta schemes for hyperbolic to parabolic relaxation problems. *SIAM Journal on Numerical Analysis*, 51(1):163–190, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BR15a] **Bai:2015:NBM**
 Zhong-Zhi Bai and Miroslav Rozložník. On the numerical behavior of matrix splitting iteration methods for solving linear systems. *SIAM Journal on Numerical Analysis*, 53(4):1716–1737, ??? 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BR15b] **Bourne:2015:CPD**
 D. P. Bourne and S. M. Roper. Centroidal power diagrams, Lloyd’s algorithm, and applications to optimal location problems. *SIAM Journal on Numerical Analysis*, 53(6):2545–2569, ??? 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BRD15] **Belanger-Rioux:2015:CAB**
 R. Bélanger-Rioux and L. Demanet. Compressed absorbing boundary conditions via matrix probing. *SIAM Journal*

- on *Numerical Analysis*, 53(5): 2441–2471, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bré13] Charles-Edouard Bréhier. Analysis of an HMM time-discretization scheme for a system of stochastic PDEs. *SIAM Journal on Numerical Analysis*, 51(2): 1185–1210, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BRK14] Fabian Brunner, Florin A. Radu, and Peter Knabner. Analysis of an upwind-mixed hybrid finite element method for transport problems. *SIAM Journal on Numerical Analysis*, 52(1):83–102, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BRO10] Nawaf Bou-Rabee and Houman Owhadi. Long-run accuracy of variational integrators in the stochastic context. *SIAM Journal on Numerical Analysis*, 48(1):278–297, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BRSV11] A. Buffa, J. Rivas, G. Sangalli, and R. Vázquez. Isogeometric discrete differential forms in three dimensions. *SIAM Journal on Numerical Analysis*, 49(2):818–844, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p818_s1.
- [BRY15] Christine Bernardi, Tomás Chacón Rebollo, and Driss Yakoubi. Finite element discretization of the Stokes and Navier–Stokes equations with boundary conditions on the pressure. *SIAM Journal on Numerical Analysis*, 53(3):1256–1279, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [BS11] T. Betcke and E. A. Spence. Numerical estimation of coercivity constants for boundary integral operators in acoustic scattering. *SIAM Journal on Numerical Analysis*, 49(4): 1572–1601, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1572_s1.
- [BS14] Peter Benner and Tatjana Stykel. Numerical solution of projected algebraic Riccati equations. *SIAM Journal on Numerical Analysis*, 52(2):581–

600, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bredies:2015:PDR

[BS15] Kristian Bredies and Hongpeng Sun. Preconditioned Douglas–Rachford splitting methods for convex-concave saddle-point problems. *SIAM Journal on Numerical Analysis*, 53(1):421–444, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bertrand:2016:PRT

[BS16a] Fleurianne Bertrand and Gerhard Starke. Parametric Raviart–Thomas elements for mixed methods on domains with curved surfaces. *SIAM Journal on Numerical Analysis*, 54(6):3648–3667, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Burman:2016:LCS

[BS16b] Erik Burman and Friedhelm Schieweck. Local CIP stabilization for composite finite elements. *SIAM Journal on Numerical Analysis*, 54(3):1967–1992, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Belomestny:2018:PPM

[BS18] Denis Belomestny and John Schoenmakers. Projected particle methods for solving McKean–Vlasov stochastic differential equations. *SIAM Jour-*

nal on Numerical Analysis, 56(6):3169–3195, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Baumstark:2019:UAO

[BS19] Simon Baumstark and Katharina Schratz. Uniformly accurate oscillatory integrators for the Klein–Gordon–Zakharov system from low- to high-plasma frequency regimes. *SIAM Journal on Numerical Analysis*, 57(1):429–457, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bompadre:2012:CAM

[BSO12] A. Bompadre, B. Schmidt, and M. Ortiz. Convergence analysis of meshfree approximation schemes. *SIAM Journal on Numerical Analysis*, 50(3):1344–1366, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bellalij:2010:FAA

[BSS10] M. Bellalij, Y. Saad, and H. Sadok. Further analysis of the Arnoldi process for eigenvalue problems. *SIAM Journal on Numerical Analysis*, 48(2):393–407, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Blomker:2018:SCN

[BSW18] Dirk Blömker, Claudia Schillings, and Philipp Wacker. A strongly

- convergent numerical scheme from ensemble Kalman inversion. *SIAM Journal on Numerical Analysis*, 56(4):2537–2562, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Bur12]
- [BSZZ13] Susanne C. Brenner, Li-Yeng Sung, Hongchao Zhang, and Yi Zhang. A quadratic C^0 interior penalty method for the displacement obstacle problem of clamped Kirchhoff plates. *SIAM Journal on Numerical Analysis*, 50(6):3329–3350, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BV10]
- [BTDG13] Tan Bui-Thanh, Leszek Demkowicz, and Omar Ghattas. A unified discontinuous Petrov–Galerkin method and its analysis for Friedrichs’ systems. *SIAM Journal on Numerical Analysis*, 51(4):1933–1958, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BV16]
- [BTG12] Tan Bui-Thanh and Omar Ghattas. Analysis of an hp -nonconforming discontinuous Galerkin spectral element method for wave propagation. *SIAM Journal on Numerical Analysis*, 50(3):1801–1826, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [BY12]
- [Burman:2012:PFN] Erik Burman. A penalty-free nonsymmetric Nitsche-type method for the weak imposition of boundary conditions. *SIAM Journal on Numerical Analysis*, 50(4):1959–1981, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Barrenechea:2010:CLP] Gabriel R. Barrenechea and Frédéric Valentin. Consistent local projection stabilized finite element methods. *SIAM Journal on Numerical Analysis*, 48(5):1801–1825, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Bogospel:2016:MSO] Benjamin Bogosel and Bozhidar Velichkov. A multiphase shape optimization problem for eigenvalues: Qualitative study and numerical results. *SIAM Journal on Numerical Analysis*, 54(1):210–241, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Braides:2012:QDM] Andrea Braides and Nung Kwan Yip. A quantitative description of mesh dependence for the discretization of singularly perturbed nonconvex problems.

- SIAM Journal on Numerical Analysis*, 50(4):1883–1898, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CC13]
- Benner:2017:ASI**
- [BY17] Peter Benner and Hamdullah Yücel. Adaptive symmetric interior penalty Galerkin method for boundary control problems. *SIAM Journal on Numerical Analysis*, 55(2):1101–1133, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CC14]
- Carles:2013:FTS**
- [Car13] Rémi Carles. On Fourier time-splitting methods for nonlinear Schrödinger equations in the semiclassical limit. *SIAM Journal on Numerical Analysis*, 51(6):3232–3258, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CC18]
- Connors:2013:MCN**
- [CBHW13] Jeffrey M. Connors, Jeffrey W. Banks, Jeffrey A. Hittinger, and Carol S. Woodward. A method to calculate numerical errors using adjoint error estimation for linear advection. *SIAM Journal on Numerical Analysis*, 51(2):894–926, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CC19]
- Casas:2013:DGT**
- Eduardo Casas and Konstantinos Chrysafinos. A discontinuous Galerkin time-stepping scheme for the velocity tracking problem. *SIAM Journal on Numerical Analysis*, 50(5):2281–2306, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Causley:2014:HOS**
- Matthew F. Causley and Andrew J. Christlieb. Higher order A -stable schemes for the wave equation using a successive convolution approach. *SIAM Journal on Numerical Analysis*, 52(1):220–235, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cao:2018:AEE**
- Shuhao Cao and Long Chen. Anisotropic error estimates of the linear virtual element method on polygonal meshes. *SIAM Journal on Numerical Analysis*, 56(5):2913–2939, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cao:2019:AEE**
- Shuhao Cao and Long Chen. Anisotropic error estimates of the linear nonconforming virtual element methods. *SIAM Journal on Numerical Analysis*, 57(3):1058–1081, 2019.

- CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCKW15] **Chertock:2015:SSS**
Alina Chertock, Shumo Cui, Alexander Kurganov, and Tong Wu. Steady state and sign preserving semi-implicit Runge–Kutta methods for ODEs with stiff damping term. *SIAM Journal on Numerical Analysis*, 53(4):2008–2029, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCCS16] **Causley:2016:MLT**
Matthew F. Causley, Hana Cho, Andrew J. Christlieb, and David C. Seal. Method of lines transpose: High order L -stable $\mathcal{O}(N)$ schemes for parabolic equations using successive convolution. *SIAM Journal on Numerical Analysis*, 54(3):1635–1652, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCD18] **Chalayer:2018:BPM**
R nald Chalayer, Laurent Chupin, and Thierry Dubois. A bi-projection method for incompressible Bingham flows with variable density, viscosity, and yield stress. *SIAM Journal on Numerical Analysis*, 56(4):2461–2483, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCF14] **Chung:2014:SDM**
Eric Chung, Bernardo Cockburn, and Guosheng Fu. The staggered DG method is the limit of a hybridizable DG method. *SIAM Journal on Numerical Analysis*, 52(2):915–932, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCL+14] **Chaudhry:2014:ELS**
Jehanzeb Hameed Chaudhry, Eric C. Cyr, Kuo Liu, Thomas A. Manteuffel, Luke N. Olson, and Lei Tang. Enhancing least-squares finite element methods through a quantity-of-interest. *SIAM Journal on Numerical Analysis*, 52(6):3085–3105, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCM10] **Chalons:2010:TIA**
C. Chalons, F. Coquel, and C. Marmignon. Time-implicit approximation of the multipresure gas dynamics equations in several space dimensions. *SIAM Journal on Numerical Analysis*, 48(5):1678–1706, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CCWX11] **Chen:2011:FMA**
Xiangling Chen, Zhongying Chen, Bin Wu, and Yuesheng Xu. Fast multilevel aug-

- mentation methods for nonlinear boundary integral equations. *SIAM Journal on Numerical Analysis*, 49(6):2231–2255, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2231_s1.
- [CD12] Jiawei Chiu and Laurent Demanet. Matrix probing and its conditioning. *SIAM Journal on Numerical Analysis*, 50(1):171–193, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p171_s1.
- [CD14] Minghua Chen and Weihua Deng. Fourth order accurate scheme for the space fractional diffusion equations. *SIAM Journal on Numerical Analysis*, 52(3):1418–1438, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CDG14] Carsten Carstensen, Leszek Demkowicz, and Jay Gopalakrishnan. A posteriori error control for DPG methods. *SIAM Journal on Numerical Analysis*, 52(3):1335–1353, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CDGQ10] Bernardo Cockburn, Bo Dong, Johnny Guzmán, and Jianliang Qian. Optimal convergence of the original DG method on special meshes for variable transport velocity. *SIAM Journal on Numerical Analysis*, 48(1):133–146, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CDM13] Frédérique Charles, Bruno Després, and Michel Mehrenberger. Enhanced convergence estimates for semi-Lagrangian schemes application to the Vlasov–Poisson equation. *SIAM Journal on Numerical Analysis*, 51(2):840–863, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CDM⁺17] Eric Cancès, Geneviève Dusson, Yvon Maday, Benjamin Stamm, and Martin Vohralík. Guaranteed and robust a posteriori bounds for Laplace eigenvalues and eigenvectors: Conforming approximations. *SIAM Journal on Numerical Analysis*, 55(5):2228–2254, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chave:2016:HHO

- [CDMP16] Florent Chave, Daniele A. Di Pietro, Fabien Marche, and Franck Pigeonneau. A hybrid high-order method for the Cahn–Hilliard problem in mixed form. *SIAM Journal on Numerical Analysis*, 54(3):1873–1898, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Carstensen:2018:TFO

- [CDNP18] Carsten Carstensen, Asha K. Dond, Neela Nataraj, and Amiya K. Pani. Three first-order finite volume element methods for Stokes equations under minimal regularity assumptions. *SIAM Journal on Numerical Analysis*, 56(4):2648–2671, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Cotter:2010:ABI

- [CDS10] S. L. Cotter, M. Dashti, and A. M. Stuart. Approximation of Bayesian inverse problems for PDEs. *SIAM Journal on Numerical Analysis*, 48(1):322–345, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Cusimano:2018:DSF

- [CdTGGP18] Nicole Cusimano, Félix del Teso, Luca Gerardo-Giorda, and Gianni Pagnini. Dis-

cretizations of the spectral fractional Laplacian on general domains with Dirichlet, Neumann, and Robin boundary conditions. *SIAM Journal on Numerical Analysis*, 56(3):1243–1272, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chevallier:2018:PEB

- [CE18] Augustin Chevallier and Stefan Engblom. Pathwise error bounds in multiscale variable splitting methods for spatial stochastic kinetics. *SIAM Journal on Numerical Analysis*, 56(1):469–498, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Calder:2015:PBA

- [CEH15] Jeff Calder, Selim Esedoğlu, and Alfred O. Hero. A PDE-based approach to nondominated sorting. *SIAM Journal on Numerical Analysis*, 53(1):82–104, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Case:2011:CBS

- [CELR11] Michael A. Case, Vincent J. Ervin, Alexander Linke, and Leo G. Rebholz. A connection between Scott–Vogelius and grad-div stabilized Taylor–Hood FE approximations of the Navier–Stokes equations. *SIAM Journal on Numerical Analysis*,

- 49(4):1461–1481, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1461_s1. [CF12]
- Cances:2013:PSO**
- [CEM13] Eric Cancès, Virginie Ehrlicher, and Yvon Maday. Periodic Schrödinger operators with local defects and spectral pollution. *SIAM Journal on Numerical Analysis*, 50(6):3016–3035, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CF17]
- Chalons:2014:CCS**
- [CER14] Ch. Chalons, P. Engel, and Ch. Rohde. A conservative and convergent scheme for undercompressive shock waves. *SIAM Journal on Numerical Analysis*, 52(1):554–579, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CFH13]
- Chaudhry:2016:PEA**
- [CET⁺16] Jehanzeb Hameed Chaudhry, Don Estep, Simon Tavener, Varis Carey, and Jeff Sandelin. A posteriori error analysis of two-stage computation methods with application to efficient discretization and the parareal algorithm. *SIAM Journal on Numerical Analysis*, 54(5):2974–3002, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CFM11]
- Cesenek:2012:TST**
- Jan Cesenek and Miloslav Feistauer. Theory of the space–time discontinuous Galerkin method for nonstationary parabolic problems with nonlinear convection and diffusion. *SIAM Journal on Numerical Analysis*, 50(3):1181–1206, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cockburn:2017:SCF**
- Bernardo Cockburn and Guosheng Fu. A systematic construction of finite element commuting exact sequences. *SIAM Journal on Numerical Analysis*, 55(4):1650–1688, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carlini:2013:GFM**
- E. Carlini, M. Falcone, and Ph. Hoch. A generalized fast marching method on unstructured triangular meshes. *SIAM Journal on Numerical Analysis*, 51(6):2999–3035, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carlini:2011:GFM**
- Elisabetta Carlini, Nicolas Forcadel, and Régis Monneau. A generalized fast marching method for dislocation dynamics. *SIAM Journal on Numerical Analysis*, 49(6):2470–

- 2500, ????. 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2470_s1. [CFZ15]
- Castro:2013:ECE**
- [CFMP13] Manuel J. Castro, Ulrik S. Fjordholm, Siddhartha Mishra, and Carlos Parés. Entropy conservative and entropy stable schemes for nonconservative hyperbolic systems. *SIAM Journal on Numerical Analysis*, 51(3):1371–1391, ????. 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CG12a]
- Chaumont-Frelet:2018:FEA**
- [CFNP18] Théophile Chaumont-Frelet, Serge Nicaise, and David Pardo. Finite element approximation of electromagnetic fields using nonfitting meshes for geophysics. *SIAM Journal on Numerical Analysis*, 56(4):2288–2321, ????. 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CG12b]
- Cockburn:2018:DIS**
- [CFQ18] Bernardo Cockburn, Guosheng Fu, and Weifeng Qiu. Discrete H^1 -inequalities for spaces admitting M -decompositions. *SIAM Journal on Numerical Analysis*, 56(6):3407–3429, ????. 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CG17]
- Cai:2015:DFO**
- Zhiqiang Cai, Rob Falgout, and Shun Zhang. Div first-order system LL* (FOSLL*) for second-order elliptic partial differential equations. *SIAM Journal on Numerical Analysis*, 53(1):405–420, ????. 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2012:AFE**
- Carsten Carstensen and Joscha Gedicke. An adaptive finite element eigenvalue solver of asymptotic quasi-optimal computational complexity. *SIAM Journal on Numerical Analysis*, 50(3):1029–1057, ????. 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2012:STN**
- Jinhai Chen and Matthias Gerdt. Smoothing technique of nonsmooth Newton methods for control-state constrained optimal control problems. *SIAM Journal on Numerical Analysis*, 50(4):1982–2011, ????. 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ciaramella:2017:APS**
- G. Ciaramella and M. J. Gander. Analysis of the parallel Schwarz method for growing chains of fixed-sized subdomains: Part I. *SIAM Journal*

- on *Numerical Analysis*, 55(3): 1330–1356, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CG18] **Ciaramella:2018:APS** G. Ciaramella and M. J. Gander. Analysis of the parallel Schwarz method for growing chains of fixed-sized subdomains: Part II. *SIAM Journal on Numerical Analysis*, 56(3):1498–1524, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CGH⁺10] **Cao:2010:FEA** Yanzhao Cao, Max Gunzburger, Xiaolong Hu, Fei Hua, Xiaoming Wang, and Weidong Zhao. Finite element approximations for Stokes–Darcy flow with Beavers–Joseph interface conditions. *SIAM Journal on Numerical Analysis*, 47(6): 4239–4256, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CGHW11] **Chen:2011:PRR** Wenbin Chen, Max Gunzburger, Fei Hua, and Xiaoming Wang. A parallel Robin–Robin domain decomposition method for the Stokes–Darcy system. *SIAM Journal on Numerical Analysis*, 49(3): 1064–1084, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CGJ13] **Cangiani:2013:DGM** Andrea Cangiani, Emmanuil H. Georgoulis, and Max Jensen. Discontinuous Galerkin methods for mass transfer through semipermeable membranes. *SIAM Journal on Numerical Analysis*, 51(5):2911–2934, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1064_s1.
- [CGKMC19] **Carrillo:2019:EBT** José Antonio Carrillo, Piotr Gwiazda, Karolina Kropielnicka, and Anna K. Marciniak-Czochra. The escalator boxcar train method for a system of age-structured equations in the space of measures. *SIAM Journal on Numerical Analysis*, 57(4):1842–1874, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CGL⁺10] **Cockburn:2010:HPT** B. Cockburn, J. Gopalakrishnan, F. Li, N.-C. Nguyen, and J. Peraire. Hybridization and postprocessing techniques for mixed eigenfunctions. *SIAM Journal on Numerical Analysis*, 48(3):857–881, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Cheng:2014:DGM**
- [CGLM14] Yingda Cheng, Irene M. Gamba, Fengyan Li, and Philip J. Morrison. Discontinuous Galerkin methods for the Vlasov–Maxwell equations. *SIAM Journal on Numerical Analysis*, 52(2):1017–1049, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2017:ALM**
- [CGLY17] Xiaojun Chen, Lei Guo, Zhaosong Lu, and Jane J. Ye. An augmented Lagrangian method for non-Lipschitz non-convex programming. *SIAM Journal on Numerical Analysis*, 55(1):168–193, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cangiani:2016:NVE**
- [CGM16] Andrea Cangiani, Vitaliy Gyrya, and Gianmarco Manzini. The NonConforming Virtual Element Method for the Stokes equations. *SIAM Journal on Numerical Analysis*, 54(6):3411–3435, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Camanno:2016:AMF**
- [CGOT16] Jessika Camanño, Gabriel N. Gatica, Ricardo Oyarzúa, and Giordano Tierra. An augmented mixed finite element method for the Navier–Stokes equations with variable viscosity. *SIAM Journal on Numerical Analysis*, 54(2):1069–1092, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2012:MFE**
- [CGR12] Carsten Carstensen, David Günther, and Hella Rabus. Mixed finite element method for a degenerate convex variational problem from topology optimization. *SIAM Journal on Numerical Analysis*, 50(2):522–543, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2013:DRC**
- [CGS13a] Carsten Carstensen, Dietmar Gallistl, and Mira Schedensack. Discrete reliability for Crouzeix–Raviart FEMs. *SIAM Journal on Numerical Analysis*, 51(5):2935–2955, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2013:QOA**
- [CGS13b] Carsten Carstensen, Dietmar Gallistl, and Mira Schedensack. Quasi-optimal adaptive pseudostress approximation of the Stokes equations. *SIAM Journal on Numerical Analysis*, 51(3):1715–1734, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Cockburn:2013:CRT**
- [CGS13c] Bernardo Cockburn, Johnny Guzmán, and Francisco-Javier Sayas. Coupling of Raviart–Thomas and hybridizable discontinuous Galerkin methods with BEM. *SIAM Journal on Numerical Analysis*, 50(5):2778–2801, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Christlieb:2015:PIF**
- [CGS15] Andrew J. Christlieb, Yaman Güçlü, and David C. Seal. The Picard integral formulation of weighted essentially nonoscillatory schemes. *SIAM Journal on Numerical Analysis*, 53(4):1833–1856, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Caceres:2018:MVE**
- [CGS18] Ernesto Cáceres, Gabriel N. Gatica, and Filánder A. Sequeira. A mixed virtual element method for quasi-Newtonian Stokes flows. *SIAM Journal on Numerical Analysis*, 56(1):317–343, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2013:ELT**
- [CGSW13] Wenbin Chen, Max Gunzburger, Dong Sun, and Xiaoming Wang. Efficient and long-time accurate second-order methods for the Stokes–Darcy system. *SIAM Journal on Numerical Analysis*, 51(5):2563–2584, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cartis:2015:ECC**
- [CGT15] Coralia Cartis, Nicholas I. M. Gould, and Philippe L. Toint. On the evaluation complexity of constrained nonlinear least-squares and general constrained nonlinear optimization using second-order methods. *SIAM Journal on Numerical Analysis*, 53(2):836–851, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Christiansen:2012:GID**
- [CH12] Snorre H. Christiansen and Tore G. Halvorsen. A gauge invariant discretization on simplicial grids of the Schrödinger eigenvalue problem in an electromagnetic field. *SIAM Journal on Numerical Analysis*, 49(1):331–345, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chouly:2013:NBM**
- [CH13] Franz Chouly and Patrick Hild. A Nitsche-based method for unilateral contact problems: Numerical analysis. *SIAM Journal on Numerical Analysis*, 51(2):1295–1307, 2013. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [CH16a] **Carstensen:2016:LOD**
C. Carstensen and F. Hellwig. Low-order discontinuous Petrov–Galerkin finite element methods for linear elasticity. *SIAM Journal on Numerical Analysis*, 54(6):3388–3410, ??? 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CH16b] **Chen:2016:SRK**
Chuchu Chen and Jialin Hong. Symplectic Runge–Kutta semidiscretization for stochastic Schrödinger equation. *SIAM Journal on Numerical Analysis*, 54(4):2569–2593, ??? 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CH18a] **Cantin:2018:DFS**
Pierre Cantin and Norbert Heuer. A DPG framework for strongly monotone operators. *SIAM Journal on Numerical Analysis*, 56(5):2731–2750, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CH18b] **Carstensen:2018:OCR**
Carsten Carstensen and Friederike Hellwig. Optimal convergence rates for adaptive lowest-order discontinuous Petrov–Galerkin schemes. *SIAM Journal on Numerical Analysis*, 56(2):1091–1111, ??? 2018. CODEN
- [CH18c] **Chen:2018:DMM**
Long Chen and Xuehai Huang. Decoupling of mixed methods based on generalized Helmholtz decompositions. *SIAM Journal on Numerical Analysis*, 56(5):2796–2825, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CH18d] **Cui:2018:ASS**
Jianbo Cui and Jialin Hong. Analysis of a splitting scheme for damped stochastic nonlinear Schrödinger equation with multiplicative noise. *SIAM Journal on Numerical Analysis*, 56(4):2045–2069, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CH19] **Cui:2019:SWC**
Jianbo Cui and Jialin Hong. Strong and weak convergence rates of a spatial approximation for stochastic partial differential equation with one-sided Lipschitz coefficient. *SIAM Journal on Numerical Analysis*, 57(4):1815–1841, ??? 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Cha12] **Charrier:2012:SWE**
Julia Charrier. Strong and weak error estimates for elliptic partial differential equations

- with random coefficients. *SIAM Journal on Numerical Analysis*, 50(1):216–246, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p216_s1.
- [Cha14] Jean-François Chassagneux. Linear multistep schemes for BSDEs. *SIAM Journal on Numerical Analysis*, 52(6):2815–2836, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Che10] Long Chen. A new class of high order finite volume methods for second order elliptic equations. *SIAM Journal on Numerical Analysis*, 47(6):4021–4043, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Che11a] Pei Chen. Hessian matrix vs. Gauss–Newton Hessian matrix. *SIAM Journal on Numerical Analysis*, 49(4):1417–1435, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1417_s1.
- [Che11b] Weidong Chen. Computation of Fourier transforms for noisy bandlimited signals. *SIAM Journal on Numerical Analysis*, 49(1):1–14, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p1_s1.
- [CHJ19a] Chuchu Chen, Jialin Hong, and Lihai Ji. Mean-square convergence of a semidiscrete scheme for stochastic Maxwell equations. *SIAM Journal on Numerical Analysis*, 57(2):728–750, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHJ19b] Chuchu Chen, Jialin Hong, and Lihai Ji. Runge–Kutta semidiscretizations for stochastic Maxwell equations with additive noise. *SIAM Journal on Numerical Analysis*, 57(2):702–727, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHL12] Jeffrey M. Connors, Jason S. Howell, and William J. Layton. Decoupled time stepping methods for fluid-fluid interaction. *SIAM Journal on Numerical Analysis*, 50(3):1297–1319, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chassagneux:2014:LMS

Chen:2019:MSC

Chen:2010:NCH

Chen:2019:RKS

Chen:2011:HMV

Connors:2012:DTS

Chen:2011:CFT

- [CHL17] **Cao:2017:ASE**
 Yanzhao Cao, Jialin Hong, and Zhihui Liu. Approximating stochastic evolution equations with additive white and rough noises. *SIAM Journal on Numerical Analysis*, 55(4):1958–1981, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHP10] **Carelli:2010:CAI**
 Erich Carelli, Jonas Haehnle, and Andreas Prohl. Convergence analysis for incompressible generalized Newtonian fluid flows with nonstandard anisotropic growth conditions. *SIAM Journal on Numerical Analysis*, 48(1):164–190, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHP13] **Carelli:2013:TSM**
 Erich Carelli, Erika Hausenblas, and Andreas Prohl. Time-splitting methods to solve the stochastic incompressible Stokes equation. *SIAM Journal on Numerical Analysis*, 50(6):2917–2939, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHW19] **Chen:2019:CRE**
 Haodi Chen, Genggeng Huang, and Xu-Jia Wang. Convergence rate estimates for Aleksandrov’s solution to the Monge–Ampère equation. *SIAM Journal on Numerical Analysis*, 57(1):173–191, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHWG15] **Cai:2015:TEC**
 Jiaxiang Cai, Jialin Hong, Yushun Wang, and Yuezheng Gong. Two energy-conserved splitting methods for three-dimensional time-domain Maxwell’s equations and the convergence analysis. *SIAM Journal on Numerical Analysis*, 53(4):1918–1940, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CHYL11] **Chen:2011:LGS**
 Yanping Chen, Fenglin Huang, Nianyu Yi, and Wenbin Liu. A Legendre–Galerkin spectral method for optimal control problems governed by Stokes equations. *SIAM Journal on Numerical Analysis*, 49(4):1625–1648, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1625_s1.
- [CHZ17] **Cai:2017:DFE**
 Zhiqiang Cai, Cuiyu He, and Shun Zhang. Discontinuous finite element methods for interface problems: Robust *A Priori* and *A Posteriori* error estimates. *SIAM Journal on Numerical Analysis*, 55(1):400–418, 2017. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [CI12] **Cantero:2012:RCE**
 María José Cantero and Arieh Iserles. On rapid computation of expansions in ultraspherical polynomials. *SIAM Journal on Numerical Analysis*, 50(1):307–327, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p307_s1.
- [Cim12] **Cimrak:2012:MSD**
 Ivan Cimrak. Material and shape derivative method for quasi-linear elliptic systems with applications in inverse electromagnetic interface problems. *SIAM Journal on Numerical Analysis*, 50(3):1086–1110, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CK10] **Cai:2010:OEE**
 Zhiqiang Cai and JaEun Ku. Optimal error estimate for the div least-squares method with data $f \in L^2$ and application to nonlinear problems. *SIAM Journal on Numerical Analysis*, 47(6):4098–4111, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CK11] **Cai:2011:GOL**
 Zhiqiang Cai and JaEun Ku. Goal-oriented local a posteriori error estimators for $H(\text{div})$ least-squares finite element methods. *SIAM Journal on Numerical Analysis*, 49(6):2564–2575, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2564_s1.
- [CK14] **Chrysafinos:2014:EED**
 Konstantinos Chrysafinos and Efthimios N. Karatzas. Error estimates for discontinuous Galerkin time-stepping schemes for Robin boundary control problems constrained to parabolic PDEs. *SIAM Journal on Numerical Analysis*, 52(6):2837–2862, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CK16] **Chandrashekar:2016:ESF**
 Praveen Chandrashekar and Christian Klingenberg. Entropy stable finite volume scheme for ideal compressible MHD on 2-D Cartesian meshes. *SIAM Journal on Numerical Analysis*, 54(2):1313–1340, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CK17] **Carstensen:2017:EDL**
 C. Carstensen and K. Kohler. Efficient discrete Lagrange multipliers in three first-order finite element discretizations for the *A Posteriori* error control in an

- obstacle problem. *SIAM Journal on Numerical Analysis*, 55(1):349–375, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CL15]
- [CKK19] Konstantinos Chrysafinos, Efthymios N. Karatzas, and Dimitrios Kostas. Stability and error estimates of fully discrete schemes for the Brusselator system. *SIAM Journal on Numerical Analysis*, 57(2):828–853, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CL18]
- [CKP11] Carsten Carstensen, Dongho Kim, and Eun-Jae Park. A priori and a posteriori pseudostress-velocity mixed finite element error analysis for the Stokes problem. *SIAM Journal on Numerical Analysis*, 49(6):2501–2523, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2501_s1. [CL19]
- [CKW13] Eric T. Chung, Hyea Hyun Kim, and Olof B. Widlund. Two-level overlapping Schwarz algorithms for a staggered discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 51(1):47–67, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CL15]
- [Carstensen:2015:NFO] C. Carstensen and D. J. Liu. Nonconforming FEMs for an optimal design problem. *SIAM Journal on Numerical Analysis*, 53(2):874–894, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Christara:2018:AQE] Christina C. Christara and Nat Chun-Ho Leung. Analysis of quantization error in financial pricing via finite difference methods. *SIAM Journal on Numerical Analysis*, 56(3):1731–1757, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Chen:2019:EAC] Chuchu Chen and Di Liu. Ergodic approximation to chemical reaction system with delay. *SIAM Journal on Numerical Analysis*, 57(1):70–95, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Clain:2013:FVM] Stéphane Clain. Finite volume maximum principle for hyperbolic scalar problems. *SIAM Journal on Numerical Analysis*, 51(1):467–490, 2013. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- Chen:2016:FFD**
- [CLJ⁺16] S. Chen, F. Liu, X. Jiang, I. Turner, and K. Burrage. Fast finite difference approximation for identifying parameters in a two-dimensional space-fractional nonlocal model with variable diffusivity coefficients. *SIAM Journal on Numerical Analysis*, 54(2):606–624, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2010:ECS**
- [CLL10] Wenbin Chen, Xingjie Li, and Dong Liang. Energy-conserved splitting finite-difference time-domain methods for Maxwell’s equations in three dimensions. *SIAM Journal on Numerical Analysis*, 48(4):1530–1554, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chartier:2019:HOP**
- [CLMV19] Ph. Chartier, M. Lemou, F. Méhats, and G. Vilmart. Highly oscillatory problems with time-dependent vanishing frequency. *SIAM Journal on Numerical Analysis*, 57(2):925–944, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chertock:2012:CPM**
- [CLP12] Alina Chertock, Jian-Guo Liu, and Terrance Pendleton. Convergence of a particle method and global weak solutions of a family of evolutionary PDEs. *SIAM Journal on Numerical Analysis*, 50(1):1–21, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p1_s1.
- Cohen:2013:TML**
- [CLS13] David Cohen, Stig Larsson, and Magdalena Sigg. A trigonometric method for the linear stochastic wave equation. *SIAM Journal on Numerical Analysis*, 51(1):204–222, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cheung:2018:CLS**
- [CLS18] Ka Chun Cheung, Leevan Ling, and Robert Schaback. H^2 -convergence of least-squares kernel collocation methods. *SIAM Journal on Numerical Analysis*, 56(1):614–633, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2013:HDG**
- [CLX13] Huangxin Chen, Peipei Lu, and Xuejun Xu. A hybridizable discontinuous Galerkin method for the Helmholtz equation with

- high wave number. *SIAM Journal on Numerical Analysis*, 51(4):2166–2188, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CLY19] Lihui Chai, Emmanuel Lorin, and Xu Yang. Frozen Gaussian approximation for the Dirac equation in semiclassical regime. *SIAM Journal on Numerical Analysis*, 57(5):2383–2412, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CM10] Yves Coudière and Gianmarco Manzini. The discrete duality finite volume method for convection-diffusion problems. *SIAM Journal on Numerical Analysis*, 47(6):4163–4192, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CM14] C. Carstensen and C. Merdon. Refined fully explicit a posteriori residual-based error control. *SIAM Journal on Numerical Analysis*, 52(4):1709–1728, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CM18] Begoña Cano and María Jesús Moreta. Exponential quadrature rules without order reduction for integrating linear initial boundary value problems. *SIAM Journal on Numerical Analysis*, 56(3):1187–1209, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CMS16] Clément Cancès, Hélène Mathis, and Nicolas Seguin. Error estimate for time-explicit finite volume approximation of strong solutions to systems of conservation laws. *SIAM Journal on Numerical Analysis*, 54(2):1263–1287, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CN17] Guoxian Chen and Sebastian Noelle. A new hydrostatic reconstruction scheme based on subcell reconstructions. *SIAM Journal on Numerical Analysis*, 55(2):758–784, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CNBW17] Mario Chater, Angxiu Ni, Patrick J. Blonigan, and Qiqi Wang. Least squares shadowing method for sensitivity analysis of differential equations. *SIAM Journal on Numerical Analysis*, 55(6):3030–3046, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Chai:2019:FGA

Cances:2016:EET

Coudiere:2010:DDF

Chen:2017:NHR

Carstensen:2014:RFE

Chater:2017:LSS

Cano:2018:EQR

- Canuto:2016:ASG**
- [CNSV16] Claudio Canuto, Ricardo H. Nochetto, Rob Stevenson, and Marco Verani. Adaptive spectral Galerkin methods with dynamic marking. *SIAM Journal on Numerical Analysis*, 54(6):3193–3213, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Colombeau:2010:MPD**
- [Col10] M. Colombeau. A method of projection of delta waves in a Godunov scheme and application to pressureless fluid dynamics. *SIAM Journal on Numerical Analysis*, 48(5):1900–1919, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carelli:2013:RCD**
- [CP13] Erich Carelli and Andreas Prohl. Rates of convergence for discretizations of the stochastic incompressible Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 50(5):2467–2496, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2015:COA**
- [CP15] Carsten Carstensen and Eun-Jae Park. Convergence and optimality of adaptive least squares finite element methods. *SIAM Journal on Numerical Analysis*, 53(1):43–62, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Campos-Pinto:2019:APP**
- [CPCD19] Martin Campos-Pinto, Frédérique Charles, and Bruno Després. Algorithms for positive polynomial approximation. *SIAM Journal on Numerical Analysis*, 57(1):148–172, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2013:CRF**
- [CPS13] C. Carstensen, D. Peterseim, and M. Schedensack. Comparison results of finite element methods for the Poisson model problem. *SIAM Journal on Numerical Analysis*, 50(6):2803–2823, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2019:SEH**
- [CPXZ19] Gang Chen, Liangya Pi, Liwei Xu, and Yangwen Zhang. A superconvergent ensemble HDG method for parameterized convection diffusion equations. *SIAM Journal on Numerical Analysis*, 57(6):2551–2578, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chung:2017:ASM**
- [CQ17] Eric T. Chung and Weifeng Qiu. Analysis of an SDG method for the incompressible

- Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 55(2):543–569, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CR12]
- [CQR13a] Peng Chen, Alfio Quarteroni, and Gianluigi Rozza. Stochastic optimal Robin boundary control problems of advection-dominated elliptic equations. *SIAM Journal on Numerical Analysis*, 51(5):2700–2722, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CR15]
- [CQR13b] Peng Chen, Alfio Quarteroni, and Gianluigi Rozza. A weighted reduced basis method for elliptic partial differential equations with random input data. *SIAM Journal on Numerical Analysis*, 51(6):3163–3185, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CR17]
- [CQS12] Bernardo Cockburn, Weifeng Qiu, and Ke Shi. Superconvergent HDG methods on isoparametric elements for second-order elliptic problems. *SIAM Journal on Numerical Analysis*, 50(3):1417–1432, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CR18]
- Carstensen:2012:ANF**
- Carsten Carstensen and Hella Rabus. The adaptive non-conforming FEM for the pure displacement problem in linear elasticity is optimal and robust. *SIAM Journal on Numerical Analysis*, 50(3):1264–1283, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chassagneux:2015:NSA**
- Jean-François Chassagneux and Adrien Richou. Numerical stability analysis of the Euler scheme for BSDEs. *SIAM Journal on Numerical Analysis*, 53(2):1172–1193, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Carstensen:2017:AAS**
- C. Carstensen and H. Rabus. Axioms of adaptivity with separate marking for data resolution. *SIAM Journal on Numerical Analysis*, 55(6):2644–2665, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cozma:2018:SCR**
- Andrei Cozma and Christoph Reisinger. Strong convergence rates for Euler approximations to a class of stochastic path-dependent volatility models. *SIAM Journal on Numerical Analysis*, 56(6):3430–3458, 2018. CODEN SJNAAM.
- Chen:2013:SOR**
- Chen:2013:WRB**
- Cockburn:2012:SHM**

- ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CRR16] **Coclite:2016:CDS**
G. M. Coclite, O. Reichmann, and N. H. Risebro. A convergent difference scheme for a class of partial integro-differential equations modeling pricing under uncertainty. *SIAM Journal on Numerical Analysis*, 54(2):588–605, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CS10] **Cheng:2010:SDG**
Yingda Cheng and Chi-Wang Shu. Superconvergence of discontinuous Galerkin and local discontinuous Galerkin schemes for linear hyperbolic and convection–diffusion equations in one space dimension. *SIAM Journal on Numerical Analysis*, 47(6):4044–4072, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CS11] **Chegini:2011:AWS**
Nabi Chegini and Rob Stevenson. Adaptive wavelet schemes for parabolic problems: Sparse matrices and numerical results. *SIAM Journal on Numerical Analysis*, 49(1):182–212, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p182_s1.
- [CS12a] **Chaturantabut:2012:SSE**
Saifon Chaturantabut and Danny C. Sorensen. A state space error estimate for POD–DEIM nonlinear model reduction. *SIAM Journal on Numerical Analysis*, 50(1):46–63, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p46_s1.
- [CS12b] **Chernov:2012:ECG**
Alexey Chernov and Christoph Schwab. Exponential convergence of Gauss–Jacobi quadratures for singular integrals over simplices in arbitrary dimension. *SIAM Journal on Numerical Analysis*, 50(3):1433–1455, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CS13] **Cances:2013:EEG**
Clément Cancès and Nicolas Seguin. Error estimate for Godunov approximation of locally constrained conservation laws. *SIAM Journal on Numerical Analysis*, 50(6):3036–3060, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CS14] **Carlini:2014:FDS**
E. Carlini and F. J. Silva. A fully discrete semi-Lagrangian scheme for a first order mean field game problem. *SIAM*

- Journal on Numerical Analysis*, 52(1):45–67, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CSV19]
- [CS18a] Elisabetta Carlini and Francisco J. Silva. On the discretization of some nonlinear Fokker–Planck–Kolmogorov equations and applications. *SIAM Journal on Numerical Analysis*, 56(4):2148–2177, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Carlini:2018:DSN**
- [CS18b] Carsten Carstensen and Johannes Storn. Asymptotic exactness of the least-squares finite element residual. *SIAM Journal on Numerical Analysis*, 56(4):2008–2028, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Carstensen:2018:AEL**
- [CST13] J. Charrier, R. Scheichl, and A. L. Teckentrup. Finite element error analysis of elliptic PDEs with random coefficients and its application to multilevel Monte Carlo methods. *SIAM Journal on Numerical Analysis*, 51(1):322–352, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Charrier:2013:FEE**
- [CSY15] Waixiang Cao, Chi-Wang Shu, Yang Yang, and Zhimin Zhang. Superconvergence of discontinuous Galerkin methods for two-dimensional hyperbolic equations. *SIAM Journal on Numerical Analysis*, 53(4):1651–1671, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Cao:2015:SDG**
- [CSY18] Waixiang Cao, Chi-Wang Shu, Yang Yang, and Zhimin Zhang. Superconvergence of discontinuous Galerkin method for scalar nonlinear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 56(2):732–765, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Cao:2018:SDG**
- [CSZ19] Gang Chen, John R. Singler, and Yangwen Zhang. An HDG method for Dirichlet boundary control of convection dominated diffusion PDEs. *SIAM* **Chen:2019:HMD**
- I. Cravero, M. Semplice, and G. Visconti. Optimal definition of the nonlinear weights in multidimensional central WENOZ reconstructions. *SIAM Journal on Numerical Analysis*, 57(5):2328–2358, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Cravero:2019:ODN**

- Journal on Numerical Analysis*, 57(4):1919–1946, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CW16]
- Chen:2018:SCN**
- [CTZ18] Zhiming Chen, Rui Tuo, and Wenlong Zhang. Stochastic convergence of a nonconforming finite element method for the thin plate spline smoother for observational data. *SIAM Journal on Numerical Analysis*, 56(2):635–659, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CW17]
- Cox:2010:CRS**
- [CvN10] Sonja Cox and Jan van Neerven. Convergence rates of the splitting scheme for parabolic linear stochastic Cauchy problems. *SIAM Journal on Numerical Analysis*, 48(2):428–451, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CW18]
- Chen:2013:LTS**
- [CW13] Zhiming Chen and Xinming Wu. Long-time stability and convergence of the uniaxial perfectly matched layer method for time-domain acoustic scattering problems. *SIAM Journal on Numerical Analysis*, 50(5):2632–2655, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CW19]
- Cheng:2016:LTS**
- Kelong Cheng and Cheng Wang. Long time stability of high order MultiStep numerical schemes for two-dimensional incompressible Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 54(5):3123–3144, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2017:CAM**
- Long Chen and Yongke Wu. Convergence of adaptive mixed finite element methods for the Hodge Laplacian equation: Without harmonic forms. *SIAM Journal on Numerical Analysis*, 55(6):2905–2929, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cai:2018:SRH**
- Zhenning Cai and Yanli Wang. Suppression of recurrence in the Hermite-spectral method for transport equations. *SIAM Journal on Numerical Analysis*, 56(5):3144–3168, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cai:2019:UAN**
- Yongyong Cai and Yan Wang. Uniformly accurate nested Picard iterative integrators for the Dirac equation in the nonrelativistic limit regime. *SIAM*

- Journal on Numerical Analysis*, 57(4):1602–1624, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CX10]
- Chen:2019:SOB**
- [CWYZ19] Wenbin Chen, Xiaoming Wang, Yue Yan, and Zhuying Zhang. A second order BDF numerical scheme with variable steps for the Cahn–Hilliard equation. *SIAM Journal on Numerical Analysis*, 57(1):495–525, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CX13]
- Cai:2010:MFE**
- [CWZ10] Zhiqiang Cai, Chumbo Wang, and Shun Zhang. Mixed finite element methods for incompressible flow: Stationary Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 48(1):79–94, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [CY10]
- Ciarlet:2014:EEM**
- [CWZ14] Patrick Ciarlet, Jr., Haijun Wu, and Jun Zou. Edge element methods for Maxwell’s equations with strong convergence for Gauss’ laws. *SIAM Journal on Numerical Analysis*, 52(2):779–807, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2010:LMM**
- Huangxin Chen and Xuejun Xu. Local multilevel methods for adaptive finite element methods for nonsymmetric and indefinite elliptic boundary value problems. *SIAM Journal on Numerical Analysis*, 47(6):4492–4516, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Chen:2013:STD**
- Zhiming Chen and Xueshuang Xiang. A source transfer domain decomposition method for Helmholtz equations in unbounded domain. *SIAM Journal on Numerical Analysis*, 51(4):2331–2356, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cui:2010:UAF**
- Ming Cui and Xiu Ye. Unified analysis of finite volume methods for the Stokes equations. *SIAM Journal on Numerical Analysis*, 48(3):824–839, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cai:2011:DGF**
- [CYZ11] Zhiqiang Cai, Xiu Ye, and Shun Zhang. Discontinuous Galerkin finite element methods for interface problems: a priori and a posteriori error estimations. *SIAM Journal*

- on *Numerical Analysis*, 49(5): 1761–1787, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1761_s1.
- [CZ10a] Zhiqiang Cai and Shun Zhang. Flux recovery and a posteriori error estimators: Conforming elements for scalar elliptic equations. *SIAM Journal on Numerical Analysis*, 48(2): 578–602, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CZ10b] Zhiqiang Cai and Shun Zhang. Recovery-based error estimators for interface problems: Mixed and nonconforming finite elements. *SIAM Journal on Numerical Analysis*, 48(1):30–52, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CZ10c] Zhiming Chen and Weiyang Zheng. Convergence of the uniaxial perfectly matched layer method for time-harmonic scattering problems in two-layered media. *SIAM Journal on Numerical Analysis*, 48(6):2158–2185, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CZ12] Zhiqiang Cai and Shun Zhang. Robust equilibrated residual error estimator for diffusion problems: Conforming elements. *SIAM Journal on Numerical Analysis*, 50(1):151–170, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2158_s1.
- [CZ13] Bernardo Cockburn and Wujun Zhang. A posteriori error analysis for hybridizable discontinuous Galerkin methods for second order elliptic problems. *SIAM Journal on Numerical Analysis*, 51(1):676–693, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [CZ17] Zhiming Chen and Weiyang Zheng. PML method for electromagnetic scattering problem in a two-layer medium. *SIAM Journal on Numerical Analysis*, 55(4):2050–2084, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Cai:2010:FRP**Cai:2012:RER****Cai:2010:RBE****Cockburn:2013:PEA****Chen:2010:CUP****Chen:2017:PME**

- Cao:2010:MAM**
- [CZAL10] Liqun Cao, Ya Zhang, Walter Allegretto, and Yanping Lin. Multiscale asymptotic method for Maxwell's equations in composite materials. *SIAM Journal on Numerical Analysis*, 47(6):4257–4289, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cao:2013:MAM**
- [CZAL13] Liqun Cao, Lei Zhang, Walter Allegretto, and Yanping Lin. Multiscale asymptotic method for Steklov eigenvalue equations in composite media. *SIAM Journal on Numerical Analysis*, 51(1):273–296, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cao:2014:SDG**
- [CZZ14] Waixiang Cao, Zhimin Zhang, and Qingsong Zou. Superconvergence of discontinuous Galerkin methods for linear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 52(5):2555–2573, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Cao:2015:CVF**
- [CZZ15] Waixiang Cao, Zhimin Zhang, and Qingsong Zou. Is $2k$ -conjecture valid for finite volume methods? *SIAM Journal on Numerical Analysis*, 53(2):942–962, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- D'Angelo:2012:FEA**
- [D'A12] Carlo D'Angelo. Finite element approximation of elliptic problems with Dirac measure terms in weighted spaces: Applications to one- and three-dimensional coupled problems. *SIAM Journal on Numerical Analysis*, 50(1):194–215, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p194_s1.
- Duque:2013:CFE**
- [DAA13] José C. M. Duque, Rui M. P. Almeida, and Stanislav N. Antontsev. Convergence of the finite element method for the porous media equation with variable exponent. *SIAM Journal on Numerical Analysis*, 51(6):3483–3504, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Díaz:2018:FWB**
- [DCdL18] Manuel J. Castro Díaz, Christophe Chalons, and Tomás Morales de Luna. A fully well-balanced Lagrange-projection-type scheme for the shallow-water equations. *SIAM Journal on Numerical Analysis*, 56(5):3071–3098, 2018. CO-

- DEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DDLZ19] **Duan:2019:NME**
Huoyuan Duan, Zhijie Du, Wei Liu, and Shangyou Zhang. New mixed elements for Maxwell equations. *SIAM Journal on Numerical Analysis*, 57(1):320–354, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DD12] **Diosady:2012:UAB**
Laslo T. Diosady and David L. Darmofal. A unified analysis of balancing domain decomposition by constraints for discontinuous Galerkin discretizations. *SIAM Journal on Numerical Analysis*, 50(3):1695–1712, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DDD⁺14] **Descombes:2014:AOS**
Stéphane Descombes, Max Duarte, Thierry Dumont, Frédérique Laurent, Violaine Louvet, and Marc Massot. Analysis of operator splitting in the nonasymptotic regime for nonlinear reaction–diffusion equations. Application to the dynamics of premixed flames. *SIAM Journal on Numerical Analysis*, 52(3):1311–1334, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DE11] **DiPietro:2015:DSM**
Daniele A. Di Pietro, Jérôme Droniou, and Alexandre Ern. A discontinuous-skeletal method for advection–diffusion–reaction on general meshes. *SIAM Journal on Numerical Analysis*, 53(5):2135–2157, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DE13] **Dziuk:2013:FDE**
Gerhard Dziuk and Charles M. Elliott. A fully discrete evolving surface finite element method. *SIAM Journal on Numerical Analysis*, 50(5):2677–2694, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DDP17] **Dossal:2017:SFT**
Charles Dossal, Vincent Duval, and Clarice Poon. Sampling the Fourier transform along radial lines. *SIAM Journal on Numerical Analysis*, 55(6):2540–2564, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DE11] **Doyen:2011:AMM**
David Doyen and Alexandre Ern. Analysis of the modified mass method for the dynamic Signorini problem with Coulomb friction. *SIAM Journal on Numerical Analysis*, 49(5):2039–2056, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2039_s1.

- [Dem10] **Demlow:2010:CAF**
 Alan Demlow. Convergence of an adaptive finite element method for controlling local energy errors. *SIAM Journal on Numerical Analysis*, 48(2):470–497, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DEM15] **Deuring:2015:SID**
 Paul Deuring, Robert Eymard, and Marcus Mildner. L^2 -stability independent of diffusion for a finite element–finite volume discretization of a linear convection–diffusion equation. *SIAM Journal on Numerical Analysis*, 53(1):508–526, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Der12] **Deriaz:2012:SCN**
 Erwan Deriaz. Stability conditions for the numerical solution of convection-dominated problems with skew-symmetric discretizations. *SIAM Journal on Numerical Analysis*, 50(3):1058–1085, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DER14] **Deckelnick:2014:UFE**
 Klaus Deckelnick, Charles M. Elliott, and Thomas Ranner. Unfitted finite element methods using bulk meshes for surface partial differential equations. *SIAM Journal on Numerical Analysis*, 52(4):2137–2162, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DEV13] **Dolejsi:2013:FRP**
 Vít Dolejší, Alexandre Ern, and Martin Vohralík. A framework for robust a posteriori error control in unsteady nonlinear advection–diffusion problems. *SIAM Journal on Numerical Analysis*, 51(2):773–793, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DF12] **Debussche:2012:WBE**
 Arnaud Debussche and Erwan Faou. Weak backward error analysis for SDEs. *SIAM Journal on Numerical Analysis*, 50(3):1735–1752, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [dFGAN10] **deFrutos:2010:SGF**
 Javier de Frutos, Bosco García-Archilla, and Julia Novo. Stabilization of Galerkin finite element approximations to transient convection–diffusion problems. *SIAM Journal on Numerical Analysis*, 48(3):953–979, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DFS17] **DelPra:2017:WPF**
 Marco Del Pra, Alessio Fumagalli, and Anna Scotti. Well

- posedness of fully coupled fracture/bulk Darcy flow with XFEM. *SIAM Journal on Numerical Analysis*, 55(2):785–811, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [DG13]
- Dick:2019:IEM**
- [DFS19] Josef Dick, Michael Feischl, and Christoph Schwab. Improved efficiency of a multi-index FEM for computational uncertainty quantification. *SIAM Journal on Numerical Analysis*, 57(4):1744–1769, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Diegel:2015:AMF**
- [DFW15] Amanda E. Diegel, Xiaobing H. Feng, and Steven M. Wise. Analysis of a mixed finite element method for a Cahn–Hilliard–Darcy–Stokes system. *SIAM Journal on Numerical Analysis*, 53(1):127–152, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Demkowicz:2011:ADM**
- [DG11] L. Demkowicz and J. Gopalakrishnan. Analysis of the DPG method for the Poisson equation. *SIAM Journal on Numerical Analysis*, 49(5):1788–1809, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1788_s1.
- Demlow:2013:PPE**
- Alan Demlow and Emmanuil H. Georgoulis. Pointwise a posteriori error control for discontinuous Galerkin methods for elliptic problems. *SIAM Journal on Numerical Analysis*, 50(5):2159–2181, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Dedner:2016:PAF**
- [DG16] Andreas Dedner and Jan Giesseimann. A posteriori analysis of fully discrete method of lines discontinuous Galerkin schemes for systems of conservation laws. *SIAM Journal on Numerical Analysis*, 54(6):3523–3549, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Discacciati:2016:ICD**
- [DGGQ16] Marco Discacciati, Paola Gervasio, Alessandro Giacomini, and Alfio Quarteroni. The interface control domain decomposition method for Stokes–Darcy coupling. *SIAM Journal on Numerical Analysis*, 54(2):1039–1068, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [DGHP16] **Dambrine:2016:NSP**
M. Dambrine, I. Greff, H. Harbrecht, and B. Puig. Numerical solution of the Poisson equation on domains with a thin layer of random thickness. *SIAM Journal on Numerical Analysis*, 54(2):921–941, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DGK13] **Dominguez:2013:FCC**
V. Domínguez, I. G. Graham, and T. Kim. Filon–Clenshaw–Curtis rules for highly oscillatory integrals with algebraic singularities and stationary points. *SIAM Journal on Numerical Analysis*, 51(3):1542–1566, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DGM⁺17] **Donatelli:2017:SBM**
Marco Donatelli, Carlo Garoni, Carla Manni, Stefano Serra-Capizzano, and Hendrik Speleers. Symbol-based multigrid methods for Galerkin B-spline isogeometric analysis. *SIAM Journal on Numerical Analysis*, 55(1):31–62, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DGNS17] **Demkowicz:2017:SDM**
L. Demkowicz, J. Gopalakrishnan, S. Nagaraj, and P. Sepúlveda. A space-time DPG method for the Schrödinger equation. *SIAM Journal on Numerical Analysis*, 55(4):1740–1759, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DGS13] **Dryja:2013:FDP**
Maksymilian Dryja, Juan Galvis, and Marcus Sarkis. A FETI–DP preconditioner for a composite finite element and discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 51(1):400–422, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DGY19] **Dick:2019:REP**
Josef Dick, Takashi Goda, and Takehito Yoshiki. Richardson extrapolation of polynomial lattice rules. *SIAM Journal on Numerical Analysis*, 57(1):44–69, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DH11] **Didenko:2011:SNM**
Victor D. Didenko and Johan Helsing. Stability of the Nyström method for the Sherman–Lauricella equation. *SIAM Journal on Numerical Analysis*, 49(3):1127–1148, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1127_s1.

- [DH13a] **Demkowicz:2013:RDM**
Leszek Demkowicz and Norbert Heuer. Robust DPG method for convection-dominated diffusion problems. *SIAM Journal on Numerical Analysis*, 51(5):2514–2537, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DH13b] **Didenko:2013:SNM**
Victor D. Didenko and Johan Helsing. On the stability of the Nyström method for the Muskhelishvili equation on contours with corners. *SIAM Journal on Numerical Analysis*, 51(3):1757–1776, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DH15a] **Drouet:2015:OCD**
Guillaume Drouet and Patrick Hild. Optimal convergence for discrete variational inequalities modelling Signorini contact in 2D and 3D without additional assumptions on the unknown contact set. *SIAM Journal on Numerical Analysis*, 53(3):1488–1507, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DH15b] **During:2015:HOC**
Bertram Düring and Christof Heuer. High-order compact schemes for parabolic problems with mixed derivatives in multiple space dimensions. *SIAM Journal on Numerical Analysis*, 53(5):2113–2134, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DHH13] **Darde:2013:BMQ**
Jérémi Dardé, Antti Hannukainen, and Nuutti Hyvönen. An H_{div} -based mixed quasi-reversibility method for solving elliptic Cauchy problems. *SIAM Journal on Numerical Analysis*, 51(4):2123–2148, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DHL17] **Deckelnick:2017:OSD**
Klaus Deckelnick, Michael Hinze, and Tobias Jordan. An optimal shape design problem for plates. *SIAM Journal on Numerical Analysis*, 55(1):109–130, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DHL17] **Du:2017:NCL**
Qiang Du, Zhan Huang, and Philippe G. LeFloch. Non-local conservation laws. a new class of monotonicity-preserving models. *SIAM Journal on Numerical Analysis*, 55(5):2465–2489, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DHP13] **Dunst:2013:AEM**
Thomas Dunst, Erika Hausenblas, and Andreas Prohl. Ap-

- proximate Euler method for parabolic stochastic partial differential equations driven by space–time Lévy noise. *SIAM Journal on Numerical Analysis*, 50(6):2873–2896, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Dic11]
- Doumic:2012:NED**
- [DHRBR12] M. Doumic, M. Hoffmann, P. Reynaud-Bouret, and V. Rivoirard. Nonparametric estimation of the division rate of a size-structured population. *SIAM Journal on Numerical Analysis*, 50(2):925–950, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Die14]
- Drescher:2017:HOM**
- [DHS17] Lukas Drescher, Holger Heumann, and Kersten Schmidt. A high order method for the approximation of integrals over implicitly defined hypersurfaces. *SIAM Journal on Numerical Analysis*, 55(6):2592–2615, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [DILP18]
- Dahmen:2013:APG**
- [DHSW13] Wolfgang Dahmen, Chunyan Huang, Christoph Schwab, and Gerrit Welper. Adaptive Petrov–Galerkin methods for first order transport equations. *SIAM Journal on Numerical Analysis*, 50(5):2420–2445, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [DICK:2011:QMC]
- Dick:2011:QMC**
- Josef Dick. Quasi-Monte Carlo numerical integration on \mathbf{R}^s : Digital nets and worst-case error. *SIAM Journal on Numerical Analysis*, 49(4):1661–1691, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1661_s1.
- Diethelm:2014:EBN**
- Kai Diethelm. Error bounds for the numerical integration of functions with limited smoothness. *SIAM Journal on Numerical Analysis*, 52(2):877–879, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [DICK:2018:OOI]
- Dick:2018:OOI**
- Josef Dick, Christian Irrgeher, Gunther Leobacher, and Friedrich Pillichshammer. On the optimal order of integration in Hermite spaces with finite smoothness. *SIAM Journal on Numerical Analysis*, 56(2):684–707, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [DU:2019:MPP]
- Du:2019:MPP**
- Qiang Du, Lili Ju, Xiao Li, and Zhonghua Qiao. Maximum

- principle preserving exponential time differencing schemes for the nonlocal Allen–Cahn equation. *SIAM Journal on Numerical Analysis*, 57(2):875–898, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DJY14] J. Deteix, A. Jendoubi, and D. Yakoubi. A coupled prediction Scheme for solving the Navier–Stokes and convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 52(5):2415–2439, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DK13] Sarah Day and William D. Kalies. Rigorous computation of the global dynamics of integrodifference equations with smooth nonlinearities. *SIAM Journal on Numerical Analysis*, 51(6):2957–2983, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DK14] Kenneth Duru and Gunilla Kreiss. Boundary waves and stability of the perfectly matched layer for the two space dimensional elastic wave equation in second order form. *SIAM Journal on Numerical Analysis*, 52(6):2883–2904, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DKG⁺14] Josef Dick, Frances Y. Kuo, Quoc T. Le Gia, Dirk Nuyens, and Christoph Schwab. Higher order QMC Petrov–Galerkin discretization for affine parametric operator equations with random field inputs. *SIAM Journal on Numerical Analysis*, 52(6):2676–2702, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DKGS16] Josef Dick, Frances Y. Kuo, Quoc T. Le Gia, and Christoph Schwab. Multilevel higher order QMC Petrov–Galerkin discretization for affine parametric operator equations. *SIAM Journal on Numerical Analysis*, 54(4):2541–2568, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DKP10] Michael Döhler, Stefan Kunis, and Daniel Potts. Nonequispaced hyperbolic cross fast Fourier transform. *SIAM Journal on Numerical Analysis*, 47(6):4415–4428, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Deteix:2014:CPS

Dick:2014:HOQ

Dick:2016:MHO

Day:2013:RCG

Dohler:2010:NHC

Duru:2014:BWS

- Dutta:2015:CHO**
- [DKR15] Rajib Dutta, Ujjwal Koley, and Nils Henrik Risebro. Convergence of a higher order scheme for the Korteweg–de Vries equation. *SIAM Journal on Numerical Analysis*, 53(4):1963–1983, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Druskin:2011:ARK**
- [DKS11] V. Druskin, L. Knizhnerman, and V. Simoncini. Analysis of the rational Krylov subspace and ADI methods for solving the Lyapunov equation. *SIAM Journal on Numerical Analysis*, 49(5):1875–1898, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1875_s1.
- Diening:2013:FEA**
- [DKS13] Lars Diening, Christian Kreuzer, and Endre Süli. Finite element approximation of steady flows of incompressible fluids with implicit power-law-like rheology. *SIAM Journal on Numerical Analysis*, 51(2):984–1015, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Dareiotis:2016:TEA**
- [DKS16] Konstantinos Dareiotis, Chaman Kumar, and Sotirios Sabanis. On tamed Euler approximations of SDEs driven by Lévy noise with applications to delay equations. *SIAM Journal on Numerical Analysis*, 54(3):1840–1872, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Droniou:2011:CCS**
- [DL11] Jérôme Droniou and Christophe Le Potier. Construction and convergence study of schemes preserving the elliptic local maximum principle. *SIAM Journal on Numerical Analysis*, 49(2):459–490, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p459_s1.
- Du:2018:QNC**
- [DLLT18] Qiang Du, Xingjie Helen Li, Jianfeng Lu, and Xiaochuan Tian. A quasi-nonlocal coupling method for nonlocal and local diffusion models. *SIAM Journal on Numerical Analysis*, 56(3):1386–1404, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- DelPezzo:2013:IPD**
- [DLM13] Leandro M. Del Pezzo, Ariel L. Lombardi, and Sandra Martínez. Interior penalty discontinuous Galerkin FEM for the $p(x)$ -laplacian. *SIAM Journal on Numerical Analysis*, 50(5):2497–2521, 2013. CODEN SJNAAM. ISSN 0036-

1429 (print), 1095-7170 (electronic).

Deng:2018:TDT

- [DLQW18] Weihua Deng, Buyang Li, Zhi Qian, and Hong Wang. Time discretization of a tempered fractional Feynman–Kac equation with measure data. *SIAM Journal on Numerical Analysis*, 56(6):3249–3275, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Duan:2013:EEV

- [DLT13] Huo-Yuan Duan, Ping Lin, and Roger C. E. Tan. Error estimates for a vectorial second-order elliptic eigenproblem by the local L^2 projected C^0 finite element method. *SIAM Journal on Numerical Analysis*, 51(3):1678–1714, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Duan:2016:FEM

- [DLT16] Huoyuan Duan, Ping Lin, and Roger C. E. Tan. A finite element method for a curlcurl–graddiv eigenvalue interface problem. *SIAM Journal on Numerical Analysis*, 54(2):1193–1228, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Duan:2013:DRF

- [DLTZ13] Huoyuan Duan, Sha Li, Roger C. E. Tan, and Weiying Zheng.

A delta-regularization finite element method for a double curl problem with divergence-free constraint. *SIAM Journal on Numerical Analysis*, 50(6):3208–3230, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

D’Apice:2013:NSO

- [DMP13] C. D’Apice, R. Manzo, and B. Piccoli. Numerical schemes for the optimal input flow of a supply chain. *SIAM Journal on Numerical Analysis*, 51(5):2634–2650, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Demlow:2012:ASF

- [DO12] Alan Demlow and Maxim A. Olshanskii. An adaptive surface finite element method based on volume meshes. *SIAM Journal on Numerical Analysis*, 50(3):1624–1647, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Dörsek:2012:SSC

- [Dör12] Philipp Dörsek. Semigroup splitting and cubature approximations for the stochastic Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 50(2):729–746, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [DP11] **Dimarco:2011:ERK**
 Giacomo Dimarco and Lorenzo Pareschi. Exponential Runge–Kutta methods for stiff kinetic equations. *SIAM Journal on Numerical Analysis*, 49(5):2057–2077, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2057_s1.
- [DP12] **Draganescu:2012:MPL**
 Andrei Draganescu and Cosmin Petra. Multigrid preconditioning of linear systems for interior point methods applied to a class of box-constrained optimal control problems. *SIAM Journal on Numerical Analysis*, 50(1):328–353, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p328_s1.
- [DP13] **Dimarco:2013:API**
 Giacomo Dimarco and Lorenzo Pareschi. Asymptotic preserving implicit-explicit Runge–Kutta methods for nonlinear kinetic equations. *SIAM Journal on Numerical Analysis*, 51(2):1064–1087, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DP17] **Dimarco:2017:IEL**
 Giacomo Dimarco and Lorenzo Pareschi. Implicit–explicit linear multistep methods for stiff kinetic equations. *SIAM Journal on Numerical Analysis*, 55(2):664–690, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DS10] **Dlotko:2010:CAS**
 Paweł Dłotko and Ruben Specogna. Critical analysis of the spanning tree techniques. *SIAM Journal on Numerical Analysis*, 48(4):1601–1624, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DS11] **Dashti:2011:UQW**
 M. Dashti and A. M. Stuart. Uncertainty quantification and weak approximation of an elliptic inverse problem. *SIAM Journal on Numerical Analysis*, 49(6):2524–2542, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2524_s1.
- [DS18] **Dohnal:2018:BWN**
 Tomáš Dohnal and Ben Schweizer. A Bloch wave numerical scheme for scattering problems in periodic wave-guides. *SIAM Journal on Numerical Analysis*, 56(3):1848–1870, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [DSZ17] Kristian Debrabant, Giovanni Samaey, and Przemysław Zieliński. A micro-macro acceleration method for the Monte Carlo simulation of stochastic differential equations. *SIAM Journal on Numerical Analysis*, 55(6):2745–2786, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DT17] Percy Deift and Thomas Trogdon. Universality for eigenvalue algorithms on sample covariance matrices. *SIAM Journal on Numerical Analysis*, 55(6):2835–2862, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [dTEJ18] Félix del Teso, Jørgen Endal, and Espen R. Jakobsen. Robust numerical methods for nonlocal (and local) equations of porous medium type. Part II: Schemes and experiments. *SIAM Journal on Numerical Analysis*, 56(6):3611–3647, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [dTEJ19] Felix del Teso, Jørgen Endal, and Espen R. Jakobsen. Robust numerical methods for nonlocal (and local) equations of porous medium type. Part I: Theory. *SIAM Journal on Numerical Analysis*, 57(5):2266–2299, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DTV15] Victor D. Didenko, Tao Tang, and Anh My Vu. Spline Galerkin methods for the Sherman–Lauricella equation on contours with corners. *SIAM Journal on Numerical Analysis*, 53(6):2752–2770, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DTZ13] Qiang Du, Li Tian, and Xuying Zhao. A convergent adaptive finite element algorithm for nonlocal diffusion and peridynamic models. *SIAM Journal on Numerical Analysis*, 51(2):1211–1234, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [dVBD⁺18] L. Beirão da Veiga, F. Brezzi, F. Dassi, L. D. Marini, and A. Russo. A family of three-dimensional virtual elements with applications to magnetostatics. *SIAM Journal on Numerical Analysis*, 56(5):2940–2962, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [dVLV18] **daVeiga:2018:VEN**
L. Beirão da Veiga, C. Lovadina, and G. Vacca. Virtual elements for the Navier–Stokes problem on polygonal meshes. *SIAM Journal on Numerical Analysis*, 56(3):1210–1242, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DW12] **Dohrmann:2012:ISA**
Clark R. Dohrmann and Olof B. Widlund. An iterative substructuring algorithm for two-dimensional problems in $H(\text{curl})$. *SIAM Journal on Numerical Analysis*, 50(3):1004–1028, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DW13] **Dohrmann:2013:ACS**
Clark R. Dohrmann and Olof B. Widlund. An alternative coarse space for irregular subdomains and an overlapping Schwarz algorithm for scalar elliptic problems in the plane. *SIAM Journal on Numerical Analysis*, 50(5):2522–2537, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DW14] **Driscoll:2014:ODS**
Tobin A. Driscoll and J. A. C. Weideman. Optimal domain splitting for interpolation by Chebyshev polynomials. *SIAM Journal on Numerical Analysis*, 52(4):1913–1927, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DW15] **Du:2015:PEA**
Yu Du and Haijun Wu. Preasymptotic error analysis of higher order FEM and CIP–FEM for Helmholtz equation with high wave number. *SIAM Journal on Numerical Analysis*, 53(2):782–804, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DY16] **Du:2016:ACF**
Qiang Du and Jiang Yang. Asymptotically compatible Fourier spectral approximations of non-local Allen–Cahn equations. *SIAM Journal on Numerical Analysis*, 54(3):1899–1919, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [DZZ19] **Du:2019:CAD**
Yu Du, Lu Zhang, and Zhimin Zhang. Convergence analysis of a discontinuous Galerkin method for wave equations in second-order form. *SIAM Journal on Numerical Analysis*, 57(1):238–265, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ebn14] **Ebner:2014:SAN**
Oliver Ebner. Stochastic aspects of nonlinear refinement

- schemes. *SIAM Journal on Numerical Analysis*, 52(2):717–734, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [EGK13]
- Egger:2018:NCM**
- [EES18] Herbert Egger, Christoph Erath, and Robert Schorr. On the nonsymmetric coupling method for parabolic–elliptic interface problems. *SIAM Journal on Numerical Analysis*, 56(6):3510–3533, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [EGMP13]
- Ern:2013:WES**
- [EG13] Alexandre Ern and Jean-Luc Guermond. Weighting the edge stabilization. *SIAM Journal on Numerical Analysis*, 51(3):1655–1677, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [EJ17]
- Eymard:2010:CMS**
- [EGHL10] R. Eymard, T. Gallouët, R. Herbin, and J.-C. Latché. Convergence of the MAC scheme for the compressible Stokes equations. *SIAM Journal on Numerical Analysis*, 48(6):2218–2246, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2218_s1. [EJK10]
- Epstein:2013:CLE**
- Charles L. Epstein, Leslie Greengard, and Andreas Klöckner. On the convergence of local expansions of layer potentials. *SIAM Journal on Numerical Analysis*, 51(5):2660–2679, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Elfverson:2013:CDG**
- Daniel Elfverson, Emmanuil H. Georgoulis, Axel Målqvist, and Daniel Peterseim. Convergence of a discontinuous Galerkin multiscale method. *SIAM Journal on Numerical Analysis*, 51(6):3351–3372, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Esedoglu:2017:CKS**
- Selim Esedoğlu and Matt Jacobs. Convolution kernels and stability of threshold dynamics methods. *SIAM Journal on Numerical Analysis*, 55(5):2123–2150, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Eck:2010:EEF**
- Ch. Eck, B. Jadamba, and P. Knabner. Error estimates for a finite element discretization of a phase field model for mixtures. *SIAM Journal on Numerical Analysis*, 47(6):4429–4445, 2010. CO-

- DEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EJS19] **Eilinghoff:2019:EAE**
 Johannes Eilinghoff, Tobias Jahnke, and Roland Schnaubelt. Error analysis of an energy preserving ADI splitting scheme for the Maxwell equations. *SIAM Journal on Numerical Analysis*, 57(3):1036–1057, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Eng15] **Engblom:2015:SCS**
 Stefan Engblom. Strong convergence for split-step methods in stochastic jump kinetics. *SIAM Journal on Numerical Analysis*, 53(6):2655–2676, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ELM15] **Ernest:2015:SWC**
 Jan Ernest, Philippe G. LeFloch, and Siddhartha Mishra. Schemes with well-controlled dissipation. *SIAM Journal on Numerical Analysis*, 53(1):674–699, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EO14a] **Einkemmer:2014:CAD**
 Lukas Einkemmer and Alexander Ostermann. Convergence analysis of a discontinuous Galerkin/Strang splitting approximation for the Vlasov–Poisson equations. *SIAM Journal on Numerical Analysis*, 52(2):757–778, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ELN13] **Ervin:2013:NAF**
 Vincent J. Ervin, William J. Layton, and Monika Neda. Numerical analysis of filter-based stabilization for evolution equations. *SIAM Journal on Numerical Analysis*, 50(5):2307–2335, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EO14b] **Einkemmer:2014:CAS**
 Lukas Einkemmer and Alexander Ostermann. Convergence analysis of Strang splitting for Vlasov-type equations. *SIAM Journal on Numerical Analysis*, 52(1):140–155, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ELS15] **Efendiev:2015:MHM**
 Yalchin Efendiev, Raytcho Lazarov, and Ke Shi. A multiscale HDG method for second order elliptic equations. Part I. Polynomial and homogenization-based multiscale spaces. *SIAM Journal on Numerical Analysis*, 53(1):342–369, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [EP16] **Erath:2016:AVC**
 Christoph Erath and Dirk Praetorius. Adaptive vertex-centered finite volume methods with convergence rates. *SIAM Journal on Numerical Analysis*, 54(4):2228–2255, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ER18] Sarah Eckstein and Michael Ruzicka. On the full space-time discretization of the generalized Stokes equations: The Dirichlet case. *SIAM Journal on Numerical Analysis*, 56(4):2234–2261, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Era12] **Erath:2012:CFV**
 Christoph Erath. Coupling of the finite volume element method and the boundary element method: An a priori convergence result. *SIAM Journal on Numerical Analysis*, 50(2):574–594, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Era13] **Erath:2013:PEE**
 Christoph Erath. A posteriori error estimates and adaptive mesh refinement for the coupling of the finite volume method and the boundary element method. *SIAM Journal on Numerical Analysis*, 51(3):1777–1804, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Erv13] **Ervin:2013:AAD**
 V. J. Ervin. Approximation of axisymmetric Darcy flow using mixed finite element methods. *SIAM Journal on Numerical Analysis*, 51(3):1421–1442, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ERW14] **Egger:2014:ECF**
 H. Egger, U. Rude, and B. Wohlmuth. Energy-corrected finite element methods for corner singularities. *SIAM Journal on Numerical Analysis*, 52(1):171–193, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ES16] **Egger:2016:CGS**
 Herbert Egger and Matthias Schlottbom. A class of Galerkin schemes for time-dependent radiative transfer. *SIAM Journal on Numerical Analysis*, 54(6):3577–3599, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ES19] **Egger:2019:PML**
 Herbert Egger and Matthias Schlottbom. A perfectly matched layer approach for P_N -approximations in radiative transfer. *SIAM Journal*

- on *Numerical Analysis*, 57(5): 2166–2188, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EST18] Oliver G. Ernst, Björn Sprungk, and Lorenzo Tamellini. Convergence of sparse collocation for functions of countably many Gaussian random variables (with application to elliptic PDEs). *SIAM Journal on Numerical Analysis*, 56(2): 877–905, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ESV17] Alexandre Ern, Iain Smears, and Martin Vohralík. Guaranteed, locally space-time efficient, and polynomial-degree robust a posteriori error estimates for high-order discretizations of parabolic problems. *SIAM Journal on Numerical Analysis*, 55(6):2811–2834, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EV10] Alexandre Ern and Martin Vohralík. A posteriori error estimation based on potential and flux reconstruction for the heat equation. *SIAM Journal on Numerical Analysis*, 48(1):198–223, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EV15] Alexandre Ern and Martin Vohralík. Polynomial-degree-robust a posteriori estimates in a unified setting for conforming, nonconforming, discontinuous Galerkin, and mixed discretizations. *SIAM Journal on Numerical Analysis*, 53(2): 1058–1081, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [EWK13] Etienne Emmrich and Aneta Wróblewska-Kamińska. Convergence of a full discretization of quasi-linear parabolic equations in isotropic and anisotropic Orlicz spaces. *SIAM Journal on Numerical Analysis*, 51(2):1163–1184, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Fei19] Michael Feischl. Optimality of a standard adaptive finite element method for the Stokes problem. *SIAM Journal on Numerical Analysis*, 57(3):1124–1157, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FF14] Adriano Festa and Maurizio Falcone. An approximation

Ernst:2018:CSC**Ern:2015:PDR****Ern:2017:GLS****Emmrich:2013:CFD****Ern:2010:PEE****Feischl:2019:OSA****Festa:2014:ASE**

- scheme for an eikonal equation with discontinuous coefficient. *SIAM Journal on Numerical Analysis*, 52(1):236–257, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [FHM16]
- Feischl:2014:AFO**
- [FFP14] M. Feischl, T. Führer, and D. Praetorius. Adaptive FEM with optimal convergence rates for a certain class of nonsymmetric and possibly nonlinear problems. *SIAM Journal on Numerical Analysis*, 52(2):601–625, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [FHN⁺13]
- Floater:2014:GBW**
- [FGS14] Michael Floater, Andrew Gillette, and N. Sukumar. Gradient bounds for Wachspress coordinates on polytopes. *SIAM Journal on Numerical Analysis*, 52(1):515–532, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [FHW12]
- Feng:2010:FDF**
- [FH10] Xiaobing Feng and Yinnian He. Fully discrete finite element approximations of a polymer gel model. *SIAM Journal on Numerical Analysis*, 48(6):2186–2217, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2186_s1. [Fio18]
- Feireisl:2016:CNM**
- Eduard Feireisl, Radim Hosek, and Martin Michálek. A convergent numerical method for the full Navier–Stokes–Fourier system in smooth physical domains. *SIAM Journal on Numerical Analysis*, 54(5):3062–3082, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Fuselier:2013:LBK**
- E. Fuselier, T. Hangelsbroek, F. J. Narcowich, J. D. Ward, and G. B. Wright. Localized bases for kernel spaces on the unit sphere. *SIAM Journal on Numerical Analysis*, 51(5):2538–2562, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Fasshauer:2012:DIR**
- Gregory E. Fasshauer, Fred J. Hickernell, and Henryk Woźniakowski. On dimension-independent rates of convergence for function approximation with Gaussian kernels. *SIAM Journal on Numerical Analysis*, 50(1):247–271, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p247_s1.
- Fiordilino:2018:SOE**
- J. A. Fiordilino. A second order ensemble timestepping algorithm for natural convection.

- [FKLL18] *SIAM Journal on Numerical Analysis*, 56(2):816–837, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Fis15] Julian Fischer. A posteriori modeling error estimates for the assumption of perfect incompressibility in the Navier–Stokes equation. *SIAM Journal on Numerical Analysis*, 53(5):2178–2205, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FJ17] Xiaobing Feng and Max Jensen. Convergent semi-Lagrangian methods for the Monge–Ampère equation on unstructured grids. *SIAM Journal on Numerical Analysis*, 55(2):691–712, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FJK13] Gary Froyland, Oliver Junge, and Péter Koltai. Estimating long-term behavior of flows without trajectory integration: The infinitesimal generator approach. *SIAM Journal on Numerical Analysis*, 51(1):223–247, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Furihata:2018:SCF] Daisuke Furihata, Mihály Kovács, Stig Larsson, and Fredrik Lindgren. Strong convergence of a fully discrete finite element approximation of the stochastic Cahn–Hilliard equation. *SIAM Journal on Numerical Analysis*, 56(2):708–731, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FKMP13] M. Feischl, M. Karkulik, J. M. Melenk, and D. Praetorius. Quasi-optimal convergence rate for an adaptive boundary element method. *SIAM Journal on Numerical Analysis*, 51(2):1327–1348, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FKS14] Frank Filbir, Stefan Kunis, and Ruben Seyfried. Effective discretization of direct reconstruction schemes for photoacoustic imaging in spherical geometries. *SIAM Journal on Numerical Analysis*, 52(6):2722–2742, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FL16] Michael S. Floater and Ming-Jun Lai. Polygonal spline spaces and the numerical solution of the Poisson equation.

- [FLZ17] *SIAM Journal on Numerical Analysis*, 54(2):797–824, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FLL⁺19] Fabian M. Faulstich, Andre Laestadius, Örs Legeza, Reinhold Schneider, and Simen Kvaal. Analysis of the tailored coupled-cluster method in quantum chemistry. *SIAM Journal on Numerical Analysis*, 57(6):2579–2607, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FLM18] U. S. Fjordholm, K. Lye, and S. Mishra. Numerical approximation of statistical solutions of scalar conservation laws. *SIAM Journal on Numerical Analysis*, 56(5):2989–3009, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FLX16] Xiaobing Feng, Yukun Li, and Yulong Xing. Analysis of mixed interior penalty discontinuous Galerkin methods for the Cahn–Hilliard equation and the Hele–Shaw flow. *SIAM Journal on Numerical Analysis*, 54(2):825–847, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FNP14] Massimo Fornasier, Valeriya Naumova, and Sergei V. Pereverzev. Parameter choice strategies for multipenalty regularization. *SIAM Journal*
- [Feng:2017:FEM] Xiaobing Feng, Yukun Li, and Yi Zhang. Finite element methods for the stochastic Allen–Cahn equation with gradient-type multiplicative noise. *SIAM Journal on Numerical Analysis*, 55(1):194–216, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Fjordholm:2012:AHO] Ulrik S. Fjordholm, Siddhartha Mishra, and Eitan Tadmor. Arbitrarily high-order accurate entropy stable essentially nonoscillatory schemes for systems of conservation laws. *SIAM Journal on Numerical Analysis*, 50(2):544–573, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [FN13] Richard S. Falk and Michael Neilan. Stokes complexes and the construction of stable finite elements with pointwise mass conservation. *SIAM Journal on Numerical Analysis*, 51(2):1308–1326, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Falk:2013:SCC]
- [Faulstich:2019:ATC]
- [FMT12]
- [Fjordholm:2018:NAS]
- [Fornasier:2014:PCS]

- on *Numerical Analysis*, 52(4):1770–1794, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [FPvdZ16]
- [FO11] **Froese:2011:CFD**
 Brittany D. Froese and Adam M. Oberman. Convergent finite difference solvers for viscosity solutions of the elliptic Monge–Ampère equation in dimensions two and higher. *SIAM Journal on Numerical Analysis*, 49(4):1692–1714, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1692_s1. [FR14]
- [FO13] **Froese:2013:CFS**
 Brittany D. Froese and Adam M. Oberman. Convergent filtered schemes for the Monge–Ampère partial differential equation. *SIAM Journal on Numerical Analysis*, 51(1):423–444, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [FR16]
- [Fou11] **Foucart:2011:HTP**
 Simon Foucart. Hard thresholding pursuit: An algorithm for compressive sensing. *SIAM Journal on Numerical Analysis*, 49(6):2543–2563, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2543_s1. [FR17]
- Feischl:2016:AAO**
 Michael Feischl, Dirk Praetorius, and Kristoffer G. van der Zee. An abstract analysis of optimal goal-oriented adaptivity. *SIAM Journal on Numerical Analysis*, 54(3):1423–1448, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Frei:2014:LMP**
 Stefan Frei and Thomas Richter. A locally modified parametric finite element method for interface problems. *SIAM Journal on Numerical Analysis*, 52(5):2315–2334, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Filbet:2016:ASP**
 Francis Filbet and Luis Miguel Rodrigues. Asymptotically stable particle-in-cell methods for the Vlasov–Poisson system with a strong external magnetic field. *SIAM Journal on Numerical Analysis*, 54(2):1120–1146, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Filbet:2017:APP**
 Francis Filbet and Luis Miguel Rodrigues. Asymptotically preserving particle-in-cell methods for inhomogeneous strongly magnetized plasmas. *SIAM Journal on Numerical Analysis*, 55(5):2416–2443, 2017.

CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Formaggia:2011:PCP

- [FS11] L. Formaggia and A. Scotti. Positivity and conservation properties of some integration schemes for mass action kinetics. *SIAM Journal on Numerical Analysis*, 49(3):1267–1288, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1267_s1.

Fasondini:2014:SRS

- [FS14] M. Fasondini and S. W. Schoombie. Spurious resonance in SemiDiscrete methods for the Korteweg–de Vries equation. *SIAM Journal on Numerical Analysis*, 52(6):2863–2882, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Fjordholm:2016:SOC

- [FS16] Ulrik S. Fjordholm and Susanne Solem. Second-order convergence of monotone schemes for conservation laws. *SIAM Journal on Numerical Analysis*, 54(3):1920–1945, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Fieldsteel:2017:PIH

- [FS17] Nathan Fieldsteel and Hal Schenck. Polynomial interpola-

tion in higher dimension: From simplicial complexes to GC sets. *SIAM Journal on Numerical Analysis*, 55(1):131–143, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Frey:2013:GAZ

- [FSX13] Rüdiger Frey, Thorsten Schmidt, and Ling Xu. On Galerkin approximations for the Zakai equation with diffusive and point process observations. *SIAM Journal on Numerical Analysis*, 51(4):2036–2062, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Feischl:2017:ECL

- [FT17] Michael Feischl and Thanh Tran. The eddy current–LLG equations: FEM–BEM coupling and a priori error estimates. *SIAM Journal on Numerical Analysis*, 55(4):1786–1819, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Feng:2012:ADC

- [FW12a] Xiaobing Feng and Steven Wise. Analysis of a Darcy–Cahn–Hilliard diffuse interface model for the Hele–Shaw flow and its fully discrete finite element approximation. *SIAM Journal on Numerical Analysis*, 50(3):1320–1343, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [FW12b] **Fuselier:2012:SDI**
Edward Fuselier and Grady B. Wright. Scattered data interpolation on embedded submanifolds with restricted positive definite kernels: Sobolev error estimates. *SIAM Journal on Numerical Analysis*, 50(3):1753–1776, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gal17]
- [FW13a] **Falk:2013:MFE**
Richard S. Falk and Shawn W. Walker. A mixed finite element method for EWOD that directly computes the position of the moving interface. *SIAM Journal on Numerical Analysis*, 51(2):1016–1040, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gao14]
- [FW13b] **Farrell:2013:RMC**
Patricio Farrell and Holger Wendland. RBF multiscale collocation for second order elliptic boundary value problems. *SIAM Journal on Numerical Analysis*, 51(4):2403–2425, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gar15]
- [FW14] **Feng:2014:ASD**
Xiaobing Feng and Haijun Wu. An absolutely stable discontinuous Galerkin method for the indefinite time-harmonic Maxwell equations with large wave number. *SIAM Journal on Numerical Analysis*, 52(5):2356–2380, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gallistl:2017:VFN]
Dietmar Gallistl. Variational formulation and numerical analysis of linear elliptic equations in nondivergence form with Cordes coefficients. *SIAM Journal on Numerical Analysis*, 55(2):737–757, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gao:2014:OEEb]
Huadong Gao. Optimal error estimates of a linearized backward Euler FEM for the Landau–Lifshitz equation. *SIAM Journal on Numerical Analysis*, 52(5):2574–2593, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Garrappa:2015:NET]
Roberto Garrappa. Numerical evaluation of two and three parameter Mittag-Leffler functions. *SIAM Journal on Numerical Analysis*, 53(3):1350–1369, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gau15] **Gauckler:2015:EAT**
Ludwig Gauckler. Error analysis of trigonometric integra-

- tors for semilinear wave equations. *SIAM Journal on Numerical Analysis*, 53(2):1082–1106, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Gaz14] Maxime Gazeau. Probability and pathwise order of convergence of a semidiscrete scheme for the stochastic Manakov equation. *SIAM Journal on Numerical Analysis*, 52(1):533–553, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GG10a] **Gazeau:2014:PPO**
Annegret Glitzky and Jens A. Griepentrog. Discrete Sobolev–Poincaré inequalities for Voronoi finite volume approximations. *SIAM Journal on Numerical Analysis*, 48(1):372–391, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GG10b] **Grimm:2010:ASR**
Volker Grimm and Martin Gugat. Approximation of semigroups and related operator functions by resolvent series. *SIAM Journal on Numerical Analysis*, 48(5):1826–1845, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GB10] Benqi Guo and Ivo Babuška. Local Jacobi operators and applications to the p -version of finite element method in two dimensions. *SIAM Journal on Numerical Analysis*, 48(1):147–163, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GF12] **Guo:2010:LJO**
Michelle Ghrist and Bengt Fornberg. Two results concerning the stability of staggered multistep methods. *SIAM Journal on Numerical Analysis*, 50(4):1849–1860, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GG11] **Gopalakrishnan:2011:SNM**
J. Gopalakrishnan and J. Guzmán. Symmetric nonconforming mixed finite elements for linear elasticity. *SIAM Journal on Numerical Analysis*, 49(4):1504–1520, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1504_s1.
- [GG13] **Gockler:2013:CAE**
Tanja Gökler and Volker Grimm. Convergence analysis of an extended Krylov subspace method for the approximation of operator functions in exponential integrators. *SIAM Journal on Numerical Analysis*, 51(4):2189–2213, 2013. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [GG15] F. Guillén González and J. R. Rodríguez Galván. Stabilized schemes for the hydrostatic Stokes equations. *SIAM Journal on Numerical Analysis*, 53(4):1876–1896, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GG17] Volker Grimm and Tanja Göckler. Automatic smoothness detection of the resolvent Krylov subspace method for the approximation of C_0 -semigroups. *SIAM Journal on Numerical Analysis*, 55(3):1483–1504, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GGNV10] Luca Gerardo-Giorda, Fabio Nobile, and Christian Vergara. Analysis and optimization of Robin-Robin partitioned procedures in fluid-structure interaction problems. *SIAM Journal on Numerical Analysis*, 48(6):2091–2116, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2091_s1.
- [GH10] Michael Griebel and Markus Hegland. A finite element method for density estimation with Gaussian process priors. *SIAM Journal on Numerical Analysis*, 47(6):4759–4792, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GH12] Martin J. Gander and Ronald D. Haynes. Domain decomposition approaches for mesh generation via the equidistribution principle. *SIAM Journal on Numerical Analysis*, 50(4):2111–2135, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GH15] Martin J. Gander and Soheil Hajian. Analysis of Schwarz methods for a hybridizable discontinuous Galerkin discretization. *SIAM Journal on Numerical Analysis*, 53(1):573–597, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GHL18] Max Gunzburger, Xiaoming He, and Buyang Li. On Stokes–Ritz projection and multistep backward differentiation schemes in decoupling the Stokes–Darcy model. *SIAM Journal on Numerical Analysis*, 56(1):397–427, 2018.

CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Gatica:2010:CMF

- [GHM10] Gabriel N. Gatica, George C. Hsiao, and Salim Meddahi. A coupled mixed finite element method for the interaction problem between an electromagnetic field and an elastic body. *SIAM Journal on Numerical Analysis*, 48(4):1338–1368, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Gong:2018:NHM

- [GHM⁺18] Wei Gong, Weiwei Hu, Mariano Mateos, John Singler, Xiao Zhang, and Yangwen Zhang. A new HDG method for Dirichlet boundary control of convection diffusion PDEs II: Low regularity. *SIAM Journal on Numerical Analysis*, 56(4):2262–2287, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Griesmaier:2014:FFS

- [GHS14] Roland Griesmaier, Martin Hanke, and John Sylvester. Far field splitting for the Helmholtz equation. *SIAM Journal on Numerical Analysis*, 52(1):343–362, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Gantner:2018:QMC

- [GHS18] Robert N. Gantner, Lukas Herrmann, and Christoph Schwab.

Quasi-Monte Carlo integration for affine-parametric, elliptic PDEs: Local supports and product weights. *SIAM Journal on Numerical Analysis*, 56(1):111–135, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Grohs:2019:PBF

- [GHSS19] Philipp Grohs, Hanne Hardering, Oliver Sander, and Markus Sprecher. Projection-based finite elements for nonlinear function spaces. *SIAM Journal on Numerical Analysis*, 57(1):404–428, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Gallistl:2018:NHP

- [GHV18] Dietmar Gallistl, Patrick Henning, and Barbara Verfürth. Numerical homogenization of $H(\text{curl})$ -problems. *SIAM Journal on Numerical Analysis*, 56(3):1570–1596, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Guo:2017:CAD

- [GHY17] Ke Guo, Deren Han, and Xiaoming Yuan. Convergence analysis of Douglas-Rachford splitting method for “Strongly + weakly” convex programming. *SIAM Journal on Numerical Analysis*, 55(4):1549–1577, 2017. CODEN

- SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gittelson:2013:CRM**
- [Git13] Claude Jeffrey Gittelson. Convergence rates of multilevel and sparse tensor approximations for a random elliptic PDE. *SIAM Journal on Numerical Analysis*, 51(4):2426–2447, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gross:2018:TFE**
- [GJOR18] Sven Gross, Thomas Jankuhn, Maxim A. Olshanskii, and Arnold Reusken. A trace finite element method for vector-Laplacians on surfaces. *SIAM Journal on Numerical Analysis*, 56(4):2406–2429, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gunzburger:2017:EPO**
- [GJS17] Max Gunzburger, Nan Jiang, and Michael Schneier. An ensemble-proper orthogonal decomposition method for the nonstationary Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 55(1):286–304, ??? 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guermond:2010:AAU**
- [GK10] Jean-Luc Guermond and Guido Kanschat. Asymptotic analysis of upwind discontinuous Galerkin approximation of the radiative transport equation in the diffusive limit. *SIAM Journal on Numerical Analysis*, 48(1):53–78, ??? 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guttel:2013:CLB**
- [GK13] Stefan Güttel and Georges Klein. Convergence of linear barycentric rational interpolation for analytic functions. *SIAM Journal on Numerical Analysis*, 50(5):2560–2580, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Graham:2018:ACE**
- [GKN⁺18] I. G. Graham, F. Y. Kuo, D. Nuyens, R. Scheichl, and I. H. Sloan. Analysis of circulant embedding methods for sampling stationary random fields. *SIAM Journal on Numerical Analysis*, 56(3):1871–1895, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gippert:2013:AFD**
- [GKR13] Sabrina Gippert, Axel Klawonn, and Oliver Rheinbach. Analysis of FETI-DP and BDDC for linear elasticity in 3D with almost incompressible components and varying coefficients inside subdomains. *SIAM Journal on Numerical Analysis*, 50(5):2208–2236, ??? 2013. CODEN SJNAAM. ISSN

- 0036-1429 (print), 1095-7170 (electronic).
- [GL10] Emmanuel Gobet and Céline Labart. Solving BSDE with adaptive control variate. *SIAM Journal on Numerical Analysis*, 48(1):257–277, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GL11] Nicola Guglielmi and Christian Lubich. Differential equations for roaming pseudospectra: Paths to extremal points and boundary tracking. *SIAM Journal on Numerical Analysis*, 49(3):1194–1209, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1194_s1. See erratum and addendum [GL12].
- [GL12] Nicola Guglielmi and Christian Lubich. Erratum/addendum: Differential equations for roaming pseudospectra: Paths to extremal points and boundary tracking. *SIAM Journal on Numerical Analysis*, 50(2):977–981, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [GL11].
- [GL13] Marcio Gameiro and Jean-Philippe Lessard. Efficient rigorous numerics for higher-dimensional PDEs via one-dimensional estimates. *SIAM Journal on Numerical Analysis*, 51(4):2063–2087, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GL15] Evan S. Gawlik and Adrian J. Lew. Unified analysis of finite element methods for problems with moving boundaries. *SIAM Journal on Numerical Analysis*, 53(6):2822–2846, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GL17] Nicola Guglielmi and Christian Lubich. Matrix stabilization using differential equations. *SIAM Journal on Numerical Analysis*, 55(6):3097–3119, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GL18] Michael Griebel and Guanglian Li. On the decay rate of the singular values of bivariate functions. *SIAM Journal on Numerical Analysis*, 56(2):974–993, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [GL19] **Guo:2019:HDI**
Ruchi Guo and Tao Lin. A higher degree immersed finite element method based on a Cauchy extension for elliptic interface problems. *SIAM Journal on Numerical Analysis*, 57(4):1545–1573, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GLL11] **Gunzburger:2011:EES**
Max D. Gunzburger, Hyung-Chun Lee, and Jangwoon Lee. Error estimates of stochastic optimal Neumann boundary control problems. *SIAM Journal on Numerical Analysis*, 49(4):1532–1552, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1532_s1.
- [GLMV16] **Georgoulis:2016:PEE**
Emmanuil H. Georgoulis, Omar Lakkis, Charalambos G. Makridakis, and Juha M. Virtanen. A posteriori error estimates for leap-frog and cosine methods for second order evolution problems. *SIAM Journal on Numerical Analysis*, 54(1):120–136, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GLR18] **Grande:2018:AHO**
Jörg Grande, Christoph Lehrenfeld, and Arnold Reusken. Analysis of a high-order trace finite element method for PDEs on level set surfaces. *SIAM Journal on Numerical Analysis*, 56(1):228–255, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GLS14] **Gao:2014:OEEa**
Huadong Gao, Buyang Li, and Weiwei Sun. Optimal error estimates of linearized Crank–Nicolson Galerkin FEMs for the time-dependent Ginzburg–Landau equations in superconductivity. *SIAM Journal on Numerical Analysis*, 52(3):1183–1202, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GLT+17] **Gong:2017:EGP**
Bo Gong, Wenbin Liu, Tao Tang, Weidong Zhao, and Tao Zhou. An efficient gradient projection method for stochastic optimal control problems. *SIAM Journal on Numerical Analysis*, 55(6):2982–3005, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GLV11] **Georgoulis:2011:PEC**
Emmanuil H. Georgoulis, Omar Lakkis, and Juha M. Virtanen. A posteriori error control for discontinuous Galerkin methods for parabolic problems. *SIAM Journal on Numerical Analysis*, 49(2):427–

- 458, ????. 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p427_s1. [GM17]
- [GLZ15] Weiguo Gao, Jing Leng, and Xiang Zhou. An iterative minimization formulation for saddle point search. *SIAM Journal on Numerical Analysis*, 53(4):1786–1805, ????. 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GM19]
- [GLZ18] Emmanuel Gobet, Gang Liu, and Jorge P. Zubelli. A nonintrusive stratified resampler for regression Monte Carlo: Application to solving nonlinear equations. *SIAM Journal on Numerical Analysis*, 56(1):50–77, ????. 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GMM12]
- [GLZ19] Li Guo, Hengguang Li, and Qingsong Zou. Interior estimates of finite volume element methods over quadrilateral meshes for elliptic equations. *SIAM Journal on Numerical Analysis*, 57(5):2246–2265, ????. 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GMNS19]
- Guglielmi:2017:OBM**
Nicola Guglielmi and Ivan Markovsky. An ODE-based method for computing the distance of coprime polynomials to common divisibility. *SIAM Journal on Numerical Analysis*, 55(3):1456–1482, ????. 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gatica:2019:CVB**
Gabriel N. Gatica and Salim Meddahi. On the coupling of VEM and BEM in two and three dimensions. *SIAM Journal on Numerical Analysis*, 57(6):2493–2518, ????. 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gatica:2012:ACL**
Gabriel N. Gatica, Antonio Márquez, and Salim Meddahi. Analysis of the coupling of Lagrange and Arnold–Falk–Winther finite elements for a fluid-solid interaction problem in three dimensions. *SIAM Journal on Numerical Analysis*, 50(3):1648–1674, ????. 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gergelits:2019:LPE**
Tomás Gergelits, Kent-André Mardal, Bjørn Fredrik Nielsen, and Zdenek Strakos. Laplacian preconditioning of elliptic PDEs: Localization of the

- eigenvalues of the discretized operator. *SIAM Journal on Numerical Analysis*, 57(3):1369–1394, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GN17]
- Giesselmann:2015:PAD**
- [GMP15] Jan Giesselmann, Charalambos Makridakis, and Tristan Pryer. A posteriori analysis of discontinuous Galerkin schemes for systems of hyperbolic conservation laws. *SIAM Journal on Numerical Analysis*, 53(3):1280–1303, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GN18a]
- Grieshaber:2015:UCI**
- [GMR15] B. J. Grieshaber, A. T. McBride, and B. D. Reddy. Uniformly convergent interior penalty methods using multilinear approximations for problems in elasticity. *SIAM Journal on Numerical Analysis*, 53(5):2255–2278, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GN18b]
- Grote:2018:CAE**
- [GMS18] Marcus J. Grote, Michaela Mehlin, and Stefan A. Sauter. Convergence analysis of energy conserving explicit local time-stepping methods for the wave equation. *SIAM Journal on Numerical Analysis*, 56(2):994–1021, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GNPY14]
- Ghasemi:2017:CRM**
- Fatemeh Ghasemi and Jan Nordström. Coupling requirements for multiphysics problems posed on two domains. *SIAM Journal on Numerical Analysis*, 55(6):2885–2904, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guignard:2018:PEE**
- Diane Guignard and Fabio Nobile. A posteriori error estimation for the stochastic collocation finite element method. *SIAM Journal on Numerical Analysis*, 56(5):3121–3143, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guzman:2018:ISS**
- Johnny Guzmán and Michael Neilan. Inf-sup stable finite elements on barycentric refinements producing divergence-free approximations in arbitrary dimensions. *SIAM Journal on Numerical Analysis*, 56(5):2826–2844, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guermond:2014:SOM**
- Jean-Luc Guermond, Murtazo Nazarov, Bojan Popov, and Yong Yang. A second-order maximum principle preserving

- Lagrange finite element technique for nonlinear scalar conservation equations. *SIAM Journal on Numerical Analysis*, 52(4):2163–2182, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Gos14]
- Gopalakrishnan:2018:ASP**
- [GNV18] J. Gopalakrishnan, M. Neumüller, and P. S. Vassilevski. The auxiliary space preconditioner for the de Rham complex. *SIAM Journal on Numerical Analysis*, 56(6):3196–3218, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GP16a]
- Gurski:2012:SSN**
- [GO12] Katharine Gurski and Stephen O’Sullivan. A stability study of a new explicit numerical scheme for a system of differential equations with a large skew-symmetric component. *SIAM Journal on Numerical Analysis*, 49(1):368–386, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GP16b]
- Gockenbach:2016:GG**
- [Goc16] Mark S. Gockenbach. Generalizing the GSVD. *SIAM Journal on Numerical Analysis*, 54(4):2517–2540, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GP17]
- Gosse:2014:TDV**
- Laurent Gosse. A two-dimensional version of the Godunov scheme for scalar balance laws. *SIAM Journal on Numerical Analysis*, 52(2):626–652, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guermond:2016:EEF**
- Jean-Luc Guermond and Bojan Popov. Error estimates of a first-order Lagrange finite element technique for nonlinear scalar conservation equations. *SIAM Journal on Numerical Analysis*, 54(1):57–85, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guermond:2016:IDF**
- Jean-Luc Guermond and Bojan Popov. Invariant domains and first-order continuous finite element approximation for hyperbolic systems. *SIAM Journal on Numerical Analysis*, 54(4):2466–2489, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guermond:2017:IDS**
- Jean-Luc Guermond and Bojan Popov. Invariant domains and second-order continuous finite element approximation for scalar conservation equations. *SIAM Journal on Numerical Analysis*, 55(6):3120–3146, 2017.

2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gess:2016:SDS**
- [GPS16] Benjamin Gess, Benoît Perthame, and Panagiotis E. Souganidis. Semi-discretization for stochastic scalar conservation laws with multiple rough fluxes. *SIAM Journal on Numerical Analysis*, 54(4):2187–2209, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gigante:2013:OSM**
- [GPV13] Giacomo Gigante, Matteo Pozzoli, and Christian Vergara. Optimized Schwarz methods for the diffusion-reaction problem with cylindrical interfaces. *SIAM Journal on Numerical Analysis*, 51(6):3402–3430, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gartland:2015:RNM**
- [GR15] Eugene C. Gartland, Jr. and Alison Ramage. A renormalized Newton method for liquid crystal director modeling. *SIAM Journal on Numerical Analysis*, 53(1):251–278, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Grande:2016:HOF**
- [GR16] Jörg Grande and Arnold Reusken. A higher order finite element method for partial differential equations on surfaces. *SIAM Journal on Numerical Analysis*, 54(1):388–414, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gockenbach:2018:AGS**
- [GR18] Mark S. Gockenbach and Matthew J. Roberts. Approximating the generalized singular value expansion. *SIAM Journal on Numerical Analysis*, 56(5):2776–2795, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Guthrey:2019:RID**
- [GR19] Pierson T. Guthrey and James A. Rossmann. The regionally implicit discontinuous Galerkin method: Improving the stability of DG-FEM. *SIAM Journal on Numerical Analysis*, 57(3):1263–1288, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Grande:2015:FED**
- [Gra15] Jörg Grande. Finite element discretization error analysis of a general interfacial stress functional. *SIAM Journal on Numerical Analysis*, 53(3):1236–1255, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Gra17] **Grande:2017:AHA**
 Jörg Grande. Analysis of highly accurate finite element based algorithms for computing distances to level sets. *SIAM Journal on Numerical Analysis*, 55(1):376–399, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GRK18] **Gupta:2018:EPS**
 Ankit Gupta, Muruhan Rathinam, and Mustafa Khammash. Estimation of parameter sensitivities for stochastic reaction networks using tau-leap simulations. *SIAM Journal on Numerical Analysis*, 56(2):1134–1167, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GRT14] **Galvin:2014:EUS**
 Keith J. Galvin, Leo G. Rebolz, and Catalin Trenchea. Efficient, unconditionally stable, and optimally accurate FE algorithms for approximate deconvolution models. *SIAM Journal on Numerical Analysis*, 52(2):678–707, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Grü13] **Grun:2013:CSD**
 G. Grün. On convergent schemes for diffuse interface models for two-phase flow of incompressible fluids with general mass densities. *SIAM Journal on Numerical Analysis*, 51(6):3036–3061, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GRZ15] **Griebel:2015:MAR**
 Michael Griebel, Christian Rieger, and Barbara Zwicknagl. Multiscale approximation and reproducing kernel Hilbert space methods. *SIAM Journal on Numerical Analysis*, 53(2):852–873, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GS11] **Guermond:2011:EAF**
 J.-L. Guermond and Abner J. Salgado. Error analysis of a fractional time-stepping technique for incompressible flows with variable density. *SIAM Journal on Numerical Analysis*, 49(3):917–944, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p917_s1.
- [GS14] **Gelb:2014:FTA**
 Anne Gelb and Guohui Song. A frame theoretic approach to the nonuniform Fast Fourier Transform. *SIAM Journal on Numerical Analysis*, 52(3):1222–1242, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [GS18] **Gillis:2018:FNP**
Nicolas Gillis and Punit Sharma. Finding the nearest positive-real system. *SIAM Journal on Numerical Analysis*, 56(2):1022–1047, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GS19] **Gallistl:2019:MFE**
Dietmar Gallistl and Endre Süli. Mixed finite element approximation of the Hamilton–Jacobi–Bellman equation with Cordes coefficients. *SIAM Journal on Numerical Analysis*, 57(2):592–614, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GSR17] **Gutierrez-Santacreu:2017:ISS**
Juan Vicente Gutiérrez-Santacreu and Marco Restelli. Inf-sup stable finite element methods for the Landau–Lifshitz–Gilbert and harmonic map heat flow equations. *SIAM Journal on Numerical Analysis*, 55(6):2565–2591, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GSS12] **Gerasimov:2012:CGP**
Tymofiy Gerasimov, Athanasios Stylianou, and Guido Sweers. Corners give problems when decoupling fourth order equations into second order systems. *SIAM Journal on Numerical Analysis*, 50(3):1604–1623, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GSV17] **Gustafsson:2017:MSF**
Tom Gustafsson, Rolf Stenberg, and Juha Videman. Mixed and stabilized finite element methods for the obstacle problem. *SIAM Journal on Numerical Analysis*, 55(6):2718–2744, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GSY16] **Goda:2016:ECO**
Takashi Goda, Kosuke Suzuki, and Takehito Yoshiki. An explicit construction of optimal order quasi-Monte Carlo rules for smooth integrands. *SIAM Journal on Numerical Analysis*, 54(4):2664–2683, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GT15] **Gonzalez:2015:HOE**
Cesáreo González and Mechthild Thalhammer. Higher-order exponential integrators for quasi-linear parabolic problems. Part I: Stability. *SIAM Journal on Numerical Analysis*, 53(2):701–719, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GT16] **Gonzalez:2016:HOE**
Cesáreo González and Mechthild Thalhammer. Higher-order exponential integrators for quasi-

- linear parabolic problems. Part II: Convergence. *SIAM Journal on Numerical Analysis*, 54(5):2868–2888, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GT19a] **Gilles:2019:CAK**
 Marc Aurèle Gilles and Alex Townsend. Continuous analogues of Krylov subspace methods for differential operators. *SIAM Journal on Numerical Analysis*, 57(2):899–924, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GT19b] **Gopal:2019:SLP**
 Abinand Gopal and Lloyd N. Trefethen. Solving Laplace problems with corner singularities via rational functions. *SIAM Journal on Numerical Analysis*, 57(5):2074–2094, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GTW⁺12] **Gottlieb:2012:LTS**
 S. Gottlieb, F. Tone, C. Wang, X. Wang, and D. Wirosoetisno. Long time stability of a classical efficient scheme for two-dimensional Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 50(1):126–150, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p126_s1.
- [Gud12] **Gudi:2012:FEM**
 Thirupathi Gudi. Finite element method for a nonlo-
- [GU10a] **Giles:2010:CLAa**
 Mike Giles and Stefan Ulbrich. Convergence of linearized and adjoint approximations for discontinuous solutions of conservation laws. Part 1: Linearized approximations and linearized output functionals. *SIAM Journal on Numerical Analysis*, 48(3):882–904, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GU10b] **Giles:2010:CLAb**
 Mike Giles and Stefan Ulbrich. Convergence of linearized and adjoint approximations for discontinuous solutions of conservation laws. Part 2: Adjoint approximations and extensions. *SIAM Journal on Numerical Analysis*, 48(3):905–921, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [GU14] **Glas:2014:NVI**
 Silke Glas and Karsten Urban. On noncoercive variational inequalities. *SIAM Journal on Numerical Analysis*, 52(5):2250–2271, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- cal problem of Kirchhoff type. *SIAM Journal on Numerical Analysis*, 50(2):657–668, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GX14]
- [GW18] Peter Giesl and Holger Wendland. Kernel-based discretization for solving matrix-valued PDEs. *SIAM Journal on Numerical Analysis*, 56(6):3386–3406, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [GY16]
- [GWW12] Michael Gnewuch, Magnus Wahlström, and Carola Winzen. A new randomized algorithm to approximate the star discrepancy based on threshold accepting. *SIAM Journal on Numerical Analysis*, 50(2):781–807, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Hag11]
- [GWW14] B. Gmeiner, C. Waluga, and B. Wohlmuth. Local mass-corrections for continuous pressure approximations of incompressible flow. *SIAM Journal on Numerical Analysis*, 52(6):2931–2956, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Hal16]
- Gander:2014:OSM**
- Martin J. Gander and Yingxiang Xu. Optimized Schwarz methods for circular domain decompositions with overlap. *SIAM Journal on Numerical Analysis*, 52(4):1981–2004, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Gong:2016:FEA**
- Wei Gong and Ningning Yan. Finite element approximations of parabolic optimal control problems with controls acting on a lower dimensional manifold. *SIAM Journal on Numerical Analysis*, 54(2):1229–1262, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hagler:2011:OGQ**
- Brian A. Hagler. Optimizing Gaussian quadrature for positive definite strong moment functionals. *SIAM Journal on Numerical Analysis*, 49(3):1111–1126, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1111_s1.
- Halla:2016:CHS**
- Martin Halla. Convergence of Hardy space infinite elements for Helmholtz scattering and resonance problems. *SIAM Journal on Numerical Analysis*,

- 54(3):1385–1400, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hamfeldt:2019:CFS**
- [Ham19] Brittany Froese Hamfeldt. Convergence framework for the second boundary value problem for the Monge–Ampère equation. *SIAM Journal on Numerical Analysis*, 57(2):945–971, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hanke:2011:LSS**
- [Han11] Martin Hanke. Locating several small inclusions in impedance tomography from backscatter data. *SIAM Journal on Numerical Analysis*, 49(5):1991–2016, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1991_s1.
- Hannukainen:2013:FVA**
- [Han13] Antti Hannukainen. Field of values analysis of a two-level preconditioner for the Helmholtz equation. *SIAM Journal on Numerical Analysis*, 51(3):1567–1584, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Haelterman:2010:SBQ**
- [HDVV10] Rob Haelterman, Joris Degroote, Dirk Van Heule, and Jan Vierendeels. On the similarities between the quasi-Newton inverse least squares method and GMRes. *SIAM Journal on Numerical Analysis*, 47(6):4660–4679, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- He:2019:ERC**
- [He19] Zhijian He. On the error rate of conditional quasi-Monte Carlo for discontinuous functions. *SIAM Journal on Numerical Analysis*, 57(2):854–874, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hessari:2015:PLS**
- [Hes15] Peyman Hessari. Pseudospectral least squares method for Stokes–Darcy equations. *SIAM Journal on Numerical Analysis*, 53(3):1195–1213, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hafiene:2018:NLE**
- [HFE18] Yosra Hafiene, Jalal Fadili, and Abderrahim Elmoataz. Nonlocal p -Laplacian evolution problems on graphs. *SIAM Journal on Numerical Analysis*, 56(2):1064–1090, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [HFL12] **Huang:2012:CFP** Y. Huang, P. A. Forsyth, and G. Labahn. Combined fixed point and policy iteration for Hamilton–Jacobi–Bellman equations in finance. *SIAM Journal on Numerical Analysis*, 50(4):1861–1882, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HH14] **Halpern:2014:FVV** Laurence Halpern and Florence Hubert. A finite volume Ventcell–Schwarz algorithm for advection–diffusion equations. *SIAM Journal on Numerical Analysis*, 52(3):1269–1291, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HH10a] **Healey:2010:MBE** Martin Healey and Norbert Heuer. Mortar boundary elements. *SIAM Journal on Numerical Analysis*, 48(4):1395–1418, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HH10b] **Hu:2010:PEA** Jun Hu and Yunqing Huang. A posteriori error analysis of finite element methods for Reissner–Mindlin plates. *SIAM Journal on Numerical Analysis*, 47(6):4446–4472, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HHZ11] **Hu:2011:LOD** Jun Hu, Yunqing Huang, and Shangyou Zhang. The lowest order differentiable finite element on rectangular grids. *SIAM Journal on Numerical Analysis*, 49(4):1350–1368, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p574_s1.
- [HH13] **Hansen:2013:CAP** Eskil Hansen and Erik Henningsson. A convergence analysis of the Peaceman–Rachford scheme for semilinear evolution equations. *SIAM Journal on Numerical Analysis*, 51(4):1900–1910, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJHUT14] **Hiptmair:2014:MIO** Ralf Hiptmair, Carlos Jerez-Hanckes, and Carolina Urzúa-Torres. Mesh-independent

- operator preconditioning for boundary elements on open curves. *SIAM Journal on Numerical Analysis*, 52(5):2295–2314, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJJ⁺13] Thao-Phuong Hoang, Jérôme Jaffré, Caroline Japhet, Michel Kern, and Jean E. Roberts. Space–time domain decomposition methods for diffusion problems in mixed formulations. *SIAM Journal on Numerical Analysis*, 51(6):3532–3559, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJKR16] Thi-Thao-Phuong Hoang, Caroline Japhet, Michel Kern, and Jean E. Roberts. Space-time domain decomposition for reduced fracture models in mixed formulation. *SIAM Journal on Numerical Analysis*, 54(1):288–316, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJS19] **Hoang:2013:STD** Thao-Phuong Hoang, Jérôme Jaffré, Caroline Japhet, Michel Kern, and Jean E. Roberts. Space–time domain decomposition methods for diffusion problems in mixed formulations. *SIAM Journal on Numerical Analysis*, 51(6):3532–3559, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJS19] **Houssineau:2019:LLS** Jeremie Houssineau, Ajay Jasra, and Sumeetpal S. Singh. On large lag smoothing for hidden Markov models. *SIAM Journal on Numerical Analysis*, 57(6):2812–2828, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJWZ16] **Huang:2016:OFI** Can Huang, Yujian Jiao, Li-Lian Wang, and Zhimin Zhang. Optimal fractional integration preconditioning and error analysis of fractional collocation method using nodal generalized Jacobi functions. *SIAM Journal on Numerical Analysis*, 54(6):3357–3387, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HK16] **Hong:2016:USD** Qingguo Hong and Johannes Kraus. Uniformly stable discontinuous Galerkin discretization and robust iterative solution methods for the Brinkman problem. *SIAM Journal on Numerical Analysis*, 54(5):2750–2774, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HJS13] **Halpern:2013:OSW** Laurence Halpern, Caroline Japhet, and Jérémie Szeftel. Optimized Schwarz waveform relaxation and discontinuous Galerkin time stepping for heterogeneous problems. *SIAM Journal on Numerical Analysis*, 50(5):2588–2611, 2013.

- [HK17] **Heuer:2017:RDM**
 Norbert Heuer and Michael Karkulik. A robust DPG method for singularly perturbed reaction-diffusion problems. *SIAM Journal on Numerical Analysis*, 55(3):1218–1242, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HKL16] **Huang:2016:SEO**
 Weizhang Huang, Lennard Kamenski, and Jens Lang. Stability of explicit one-step methods for P1-finite element approximation of linear diffusion equations on anisotropic meshes. *SIAM Journal on Numerical Analysis*, 54(3):1612–1634, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HKL19] **Huybrechs:2019:NMO**
 Daan Huybrechs, Arno Kuijlaars, and Nele Lejon. A numerical method for oscillatory integrals with coalescing saddle points. *SIAM Journal on Numerical Analysis*, 57(6):2707–2729, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HKLN16] **Hadjimichael:2016:SSP**
 Yiannis Hadjimichael, David I. Ketcheson, Lajos Lóczy, and Adrián Németh. Strong stability preserving explicit linear multistep methods with variable step size. *SIAM Journal on Numerical Analysis*, 54(5):2799–2832, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HKS11] **Han:2011:AMA**
 Bin Han, Gitta Kutyniok, and Zuowei Shen. Adaptive multiresolution analysis structures and shearlet systems. *SIAM Journal on Numerical Analysis*, 49(5):1921–1946, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1921_s1.
- [HL10] **Heinkenschloss:2010:LEE**
 Matthias Heinkenschloss and Dmitriy Leykekhman. Local error estimates for SUPG solutions of advection-dominated elliptic linear-quadratic optimal control problems. *SIAM Journal on Numerical Analysis*, 47(6):4607–4638, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HL15] **Humpherys:2015:RFE**
 Jeffrey Humpherys and Joshua Lytle. Root following in Evans function computation. *SIAM Journal on Numerical Analysis*, 53(5):2329–2346, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Hla14] **Hladik:2014:NOM**
Milan Hladík. New operator and method for solving real preconditioned interval linear equations. *SIAM Journal on Numerical Analysis*, 52(1):194–206, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HLM13] **Hewett:2013:HFB**
D. P. Hewett, S. Langdon, and J. M. Melenk. A high frequency *hp* boundary element method for scattering by convex polygons. *SIAM Journal on Numerical Analysis*, 51(1):629–653, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HLS13] **Hou:2013:EES**
Yanren Hou, Buyang Li, and Weiwei Sun. Error estimates of splitting Galerkin methods for heat and sweat transport in textile materials. *SIAM Journal on Numerical Analysis*, 51(1):88–111, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HLT16] **Hoel:2016:MEK**
Håkon Hoel, Kody J. H. Law, and Raul Tempone. Multi-level ensemble Kalman filtering. *SIAM Journal on Numerical Analysis*, 54(3):1813–1839, 2016. CODEN SJNAAM.
- [HLY13] **Ha:2013:MEN**
Youngsoo Ha, Yeon Ju Lee, and Jungho Yoon. Modified essentially nonoscillatory schemes based on exponential polynomial interpolation for hyperbolic conservation laws. *SIAM Journal on Numerical Analysis*, 51(2):864–893, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HLZ15] **Hansbo:2015:SFE**
Peter Hansbo, Mats G. Larson, and Sara Zahedi. Stabilized finite element approximation of the mean curvature vector on closed surfaces. *SIAM Journal on Numerical Analysis*, 53(4):1806–1832, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HM14] **Hrivnak:2014:DTO**
Jirí Hrivnák and Lenka Motlochová. Discrete transforms and orthogonal polynomials of (anti)Symmetric multivariate cosine functions. *SIAM Journal on Numerical Analysis*, 52(6):3021–3055, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HM16] **Herzog:2016:PSS**
Roland Herzog and Susann Mach. Preconditioned solution
- ISSN 0036-1429 (print), 1095-7170 (electronic).

- of state gradient constrained elliptic optimal control problems. *SIAM Journal on Numerical Analysis*, 54(2):688–718, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [HMP11]
- [HM17] Patrick Henning and Axel Målqvist. The finite element method for the time-dependent Gross–Pitaevskii equation with angular momentum rotation. *SIAM Journal on Numerical Analysis*, 55(2):923–952, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HMKV13] Yiannis Hadjimichael, Colin B. Macdonald, David I. Ketcheson, and James H. Verner. Strong stability preserving explicit Runge–Kutta methods of maximal effective order. *SIAM Journal on Numerical Analysis*, 51(4):2149–2165, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HMO19] Antti Hannukainen, Jarmo Malinen, and Antti Ojalampi. Efficient solution of symmetric eigenvalue problems from families of coupled systems. *SIAM Journal on Numerical Analysis*, 57(4):1789–1814, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HMP14] Patrick Henning, Axel Målqvist, and Daniel Peterseim. Two-level discretization techniques for ground state computations of Bose–Einstein condensates. *SIAM Journal on Numerical Analysis*, 52(4):1525–1550, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HMP15] F. M. Hante, M. S. Mommer, and A. Potschka. Newton–Picard preconditioners for time-periodic parabolic optimal control problems. *SIAM Journal on Numerical Analysis*, 53(5):2206–2225, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Hiptmair:2011:PWD] R. Hiptmair, A. Moiola, and I. Perugia. Plane wave discontinuous Galerkin methods for the 2D Helmholtz equation: Analysis of the p -version. *SIAM Journal on Numerical Analysis*, 49(1):264–284, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p264_s1.
- [Henning:2014:TLD] Patrick Henning, Axel Målqvist, and Daniel Peterseim. Two-level discretization techniques for ground state computations of Bose–Einstein condensates. *SIAM Journal on Numerical Analysis*, 52(4):1525–1550, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Hante:2015:NPP] F. M. Hante, M. S. Mommer, and A. Potschka. Newton–Picard preconditioners for time-periodic parabolic optimal control problems. *SIAM Journal on Numerical Analysis*, 53(5):2206–2225, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Harris:2011:UBT**
- [HN11] Charles B. Harris and Richard D. Noren. Uniform l^1 behavior of a time discretization method for a Volterra integrodifferential equation with convex kernel; stability. *SIAM Journal on Numerical Analysis*, 49(4):1553–1571, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1553_s1.
- Hirao:2013:NAE**
- [HNSV13] Masatake Hirao, Hiroshi Nozaki, Masanori Sawa, and Vesselin Vatchev. A new approach for the existence problem of minimal cubature formulas based on the Larman–Rogers–Seidel theorem. *SIAM Journal on Numerical Analysis*, 50(5):2716–2728, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Huang:2014:NMF**
- [HO14] Yanghong Huang and Adam Oberman. Numerical methods for the fractional Laplacian: a finite difference-quadrature approach. *SIAM Journal on Numerical Analysis*, 52(6):3056–3084, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Henning:2016:NHM**
- [HOV16] Patrick Henning, Mario Ohlberger, and Barbara Verfürth. A new heterogeneous multiscale method for time-harmonic Maxwell’s equations. *SIAM Journal on Numerical Analysis*, 54(6):3493–3522, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Heuer:2014:UWF**
- [HP14] Norbert Heuer and Felipe Pinochet. Ultra-weak formulation of a hypersingular integral equation on polygons and DPG method with optimal test functions. *SIAM Journal on Numerical Analysis*, 52(6):2703–2721, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Hochbruck:2015:IRK**
- [HP15] Marlis Hochbruck and Tomislav Pazur. Implicit Runge–Kutta methods and discontinuous Galerkin discretizations for linear Maxwell’s equations. *SIAM Journal on Numerical Analysis*, 53(1):485–507, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Herty:2013:IER**
- [HPS13] M. Herty, L. Pareschi, and S. Steffensen. Implicit-explicit Runge–Kutta schemes for numerical discretization of optimal control problems. *SIAM Journal on Numerical Analysis*, 51(4):1875–1899, 2013. CODEN SJNAAM. ISSN 0036-

1429 (print), 1095-7170 (electronic).

Harbrecht:2017:UQP

[HPS17] H. Harbrecht, M. D. Peters, and M. Schmidlin. Uncertainty quantification for PDEs with anisotropic random diffusion. *SIAM Journal on Numerical Analysis*, 55(2):1002–1023, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hild:2013:IPE

[HR13] Patrick Hild and Yves Renard. An improved a priori error analysis for finite element approximations of Signorini’s problem. *SIAM Journal on Numerical Analysis*, 50(5):2400–2419, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hu:2013:LBN

[HS13] Jun Hu and Zhongci Shi. A lower bound of the L^2 norm error estimate for the Adini element of the biharmonic equation. *SIAM Journal on Numerical Analysis*, 51(5):2651–2659, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hansen:2014:CAS

[HS14] Eskil Hansen and Tony Stillfjord. Convergence analysis for splitting of the abstract differential Riccati equation. *SIAM Journal on Numerical Analysis*, 52

(6):3128–3139, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Herzog:2015:SCK

[HS15] Roland Herzog and Ekkehard Sachs. Superlinear convergence of Krylov subspace methods for self-adjoint problems in Hilbert space. *SIAM Journal on Numerical Analysis*, 53(3):1304–1324, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hochbruck:2016:EAS

[HS16] Marlis Hochbruck and Andreas Sturm. Error analysis of a second-order locally implicit method for linear Maxwell’s equations. *SIAM Journal on Numerical Analysis*, 54(5):3167–3191, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Han:2017:NAE

[HSB17] Weimin Han, Mircea Sofonea, and Mikaël Barboteu. Numerical analysis of elliptic hemivariational inequalities. *SIAM Journal on Numerical Analysis*, 55(2):640–663, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Haasdonk:2013:RBM

[HSW13] B. Haasdonk, J. Salomon, and B. Wohlmuth. A reduced basis

- method for parametrized variational inequalities. *SIAM Journal on Numerical Analysis*, 50(5):2656–2676, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [HT17]
- [HSW17] Jialin Hong, Liying Sun, and Xu Wang. High order conformal symplectic and ergodic schemes for the stochastic Langevin equation via generating functions. *SIAM Journal on Numerical Analysis*, 55(6):3006–3029, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Hu15]
- [HSZ18] Jingwei Hu, Ruiwen Shu, and Xiangxiong Zhang. Asymptotic-preserving and positivity-preserving implicit-explicit schemes for the stiff BGK equation. *SIAM Journal on Numerical Analysis*, 56(2):942–973, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Hül10]
- [HT16] François P. Hamon and Hamdi A. Tchelepi. Analysis of hybrid upwinding for fully-implicit simulation of three-phase flow with gravity. *SIAM Journal on Numerical Analysis*, 54(3):1682–1712, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Huy10]
- [Hofreither:2017:RMI] Clemens Hofreither and Stefan Takacs. Robust multigrid for isogeometric analysis based on stable splittings of spline spaces. *SIAM Journal on Numerical Analysis*, 55(4):2004–2024, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Hu:2015:NFE] Jun Hu. A new family of efficient conforming mixed finite elements on both rectangular and cuboid meshes for linear elasticity in the symmetric formulation. *SIAM Journal on Numerical Analysis*, 53(3):1438–1463, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Huls:2010:CSS] Thorsten Hüls. Computing Sacker–Sell spectra in discrete time dynamical systems. *SIAM Journal on Numerical Analysis*, 48(6):2043–2064, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2043_s1.
- [Huybrechs:2010:FEN] Daan Huybrechs. On the Fourier extension of nonperiodic functions. *SIAM Journal on Numerical Analysis*, 47(6):

4326–4355, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Houska:2015:SSV

[HVC15] Boris Houska, Mario E. Villanueva, and Benoît Chachuat. Stable set-valued integration of nonlinear dynamic systems using affine set-parameterizations. *SIAM Journal on Numerical Analysis*, 53(5):2307–2328, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hu:2013:CCA

[HVG13] Xiaozhe Hu, Panayot S. Vassilevski, and Jinchao Xu. Comparative convergence analysis of nonlinear AMLI-cycle multigrid. *SIAM Journal on Numerical Analysis*, 51(2):1349–1369, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hohage:2014:CRI

[HW14] Thorsten Hohage and Frank Werner. Convergence rates for inverse problems with impulsive noise. *SIAM Journal on Numerical Analysis*, 52(3):1203–1221, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

He:2015:CRR

[HW15] Zhijian He and Xiaoqun Wang. On the convergence rate of randomized quasi-Monte Carlo for

discontinuous functions. *SIAM Journal on Numerical Analysis*, 53(5):2488–2503, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hohage:2017:CVS

[HW17] Thorsten Hohage and Frederic Weidling. Characterizations of variational source conditions, converse results, and maxisets of spectral regularization methods. *SIAM Journal on Numerical Analysis*, 55(2):598–620, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Hong:2017:NAE

[HWZ17] Jialin Hong, Xu Wang, and Liying Zhang. Numerical analysis on ergodic limit of approximations for stochastic NLS equation via multi-symplectic scheme. *SIAM Journal on Numerical Analysis*, 55(1):305–327, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

He:2012:CRD

[HY12] Bingsheng He and Xiaoming Yuan. On the $O(1/n)$ convergence rate of the Douglas-Rachford alternating direction method. *SIAM Journal on Numerical Analysis*, 50(2):700–709, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [HY13] **Han:2013:LLC**
 Deren Han and Xiaoming Yuan. Local linear convergence of the alternating direction method of multipliers for quadratic programs. *SIAM Journal on Numerical Analysis*, 51(6):3446–3457, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HY18] **Hu:2018:UAQ**
 Jun Hu and Guozhu Yu. A unified analysis of quasi-optimal convergence for adaptive mixed finite element methods. *SIAM Journal on Numerical Analysis*, 56(1):296–316, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HYZ16] **Hager:2016:CRV**
 William W. Hager, Maryam Yashtini, and Hongchao Zhang. An $\mathcal{O}(1/k)$ convergence rate for the variable stepsize Bregman operator splitting algorithm. *SIAM Journal on Numerical Analysis*, 54(3):1535–1556, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [HZZ11] **Hong:2011:DGA**
 Jialin Hong, Shuxing Zhai, and Jingjing Zhang. Discrete gradient approach to stochastic differential equations with a conserved quantity. *SIAM Journal on Numerical Analysis*, 49(5):2017–2038, 2011. CO-
- [HZZ19] **Hu:2019:OCG**
 Jun Hu, Shangyou Zhang, and Zhimin Zhang. On the $2p$ th-order of convergence of the Galerkin difference method. *SIAM Journal on Numerical Analysis*, 57(5):2189–2199, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [IGG18] **Isherwood:2018:SSP**
 Leah Isherwood, Zachary J. Grant, and Sigal Gottlieb. Strong stability preserving integrating factor Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 56(6):3276–3307, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [IGVGF19] **Imbert-Gerard:2019:IEM**
 Lise-Marie Imbert-Gerard, Felipe Vico, Leslie Greengard, and Miguel Ferrando. Integral equation methods for electrostatics, acoustics, and electromagnetics in smoothly varying, anisotropic media. *SIAM Journal on Numerical Analysis*, 57(3):1020–1035, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- DEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2017_s1.

- Ipsen:2011:RDN**
- [IKP11] I. C. F. Ipsen, C. T. Kelley, and S. R. Pope. Rank-deficient nonlinear least squares problems and subset selection. *SIAM Journal on Numerical Analysis*, 49(3):1244–1266, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1244_s1.
- Iserles:2018:MLM**
- [IKS18] Arieh Iserles, Karolina Kropielnicka, and Pranav Singh. Magnus–Lanczos methods with simplified commutators for the Schrödinger equation with a time-dependent potential. *SIAM Journal on Numerical Analysis*, 56(3):1547–1569, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ingram:2011:FEA**
- [Ing11] Ross Ingram. Finite element approximation of nonsolenoidal, viscous flows around porous and solid obstacles. *SIAM Journal on Numerical Analysis*, 49(2):491–520, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p491_s1.
- Ibort:2013:NSS**
- [IPP13] A. Ibort and J. M. Pérez-Pardo. Numerical solutions of the spectral problem for arbitrary self-adjoint extensions of the one-dimensional Schrödinger equation. *SIAM Journal on Numerical Analysis*, 51(2):1254–1279, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ingram:2010:MFM**
- [IWY10] Ross Ingram, Mary F. Wheeler, and Ivan Yotov. A multi-point flux mixed finite element method on hexahedra. *SIAM Journal on Numerical Analysis*, 48(4):1281–1312, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jiao:2016:PHM**
- [JDZY16] Libin Jiao, Bo Dong, Jintao Zhang, and Bo Yu. Polynomial homotopy method for the sparse interpolation problem. Part I: Equally spaced sampling. *SIAM Journal on Numerical Analysis*, 54(1):462–480, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jentzen:2011:HOP**
- [Jen11] Arnulf Jentzen. Higher order pathwise numerical approximations of SPDEs with additive noise. *SIAM Journal on Numerical Analysis*, 49(2):642–667, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p642_s1.

- siam.org/sinum/resource/1/sjnaam/v49/i2/p642_s1.
- Jin:2011:GCA**
- [Jin11] Qinian Jin. A general convergence analysis of some Newton-type methods for nonlinear inverse problems. *SIAM Journal on Numerical Analysis*, 49(2):549–573, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p549_s1.
- Jin:2015:INL**
- [Jin15] Qinian Jin. Inexact Newton–Landweber iteration in Banach spaces with NonSmooth convex penalty terms. *SIAM Journal on Numerical Analysis*, 53(5):2389–2413, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jiao:2016:ADM**
- [JLW16] Yuling Jiao, Qinian Jin, Xiliang Lu, and Weijie Wang. Alternating direction method of multipliers for linear inverse problems. *SIAM Journal on Numerical Analysis*, 54(4):2114–2137, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jaklic:2013:HGI**
- [JKK⁺13] Gasper Jaklic, Jernej Kozak, Marjeta Krajnc, Vito Vitrih, and Emil Zagar. Hermite geometric interpolation by rational Bézier spatial curves. *SIAM Journal on Numerical Analysis*, 50(5):2695–2715, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jasra:2017:MPF**
- [JKLZ17] Ajay Jasra, Kengo Kamatani, Kody J. H. Law, and Yan Zhou. Multilevel particle filters. *SIAM Journal on Numerical Analysis*, 55(6):3068–3096, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jin:2010:HPC**
- [JL10] Bangti Jin and Dirk A. Lorenz. Heuristic parameter-choice rules for convex variational regularization based on error estimates. *SIAM Journal on Numerical Analysis*, 48(3):1208–1229, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jha:2018:NAN**
- [JL18] Prashant K. Jha and Robert Lipton. Numerical analysis of nonlocal fracture models in Hölder space. *SIAM Journal on Numerical Analysis*, 56(2):906–941, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jacobs:2019:SLS**
- [JLLO19] Matt Jacobs, Flavien Léger, Wuchen Li, and Stanley Os-

- her. Solving large-scale optimization problems with a convergence rate independent of grid size. *SIAM Journal on Numerical Analysis*, 57(3):1100–1123, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [JLZ16]
- Jin:2014:EAF**
- [JLPZ14] Bangti Jin, Raytcho Lazarov, Joseph Pasciak, and Zhi Zhou. Error analysis of a finite element method for the space-fractional parabolic equation. *SIAM Journal on Numerical Analysis*, 52(5):2272–2294, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jang:2014:AAP**
- [JLQX14] Juhi Jang, Fengyan Li, Jing-Mei Qiu, and Tao Xiong. Analysis of asymptotic preserving DG–IMEX schemes for linear kinetic transport equations in a diffusive scaling. *SIAM Journal on Numerical Analysis*, 52(4):2048–2072, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jin:2013:EES**
- [JLZ13] Bangti Jin, Raytcho Lazarov, and Zhi Zhou. Error estimates for a semidiscrete finite element method for fractional order parabolic equations. *SIAM Journal on Numerical Analysis*, 51(1):445–466, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [JLZ16]
- Jin:2016:PGF**
- Bangti Jin, Raytcho Lazarov, and Zhi Zhou. A Petrov–Galerkin finite element method for fractional convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 54(1):481–503, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Jin:2018:NAN**
- [JLZ18] Bangti Jin, Buyang Li, and Zhi Zhou. Numerical analysis of nonlinear subdiffusion equations. *SIAM Journal on Numerical Analysis*, 56(1):1–23, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ji:2013:CAM**
- [JML13] Hao Ji, Michael Mascagni, and Yaohang Li. Convergence analysis of Markov Chain Monte Carlo linear solvers using Ulam–von Neumann algorithm. *SIAM Journal on Numerical Analysis*, 51(4):2107–2122, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Japhet:2014:RSA**
- [JMN14] Caroline Japhet, Yvon Maday, and Frédéric Nataf. Robin Schwarz algorithm for the NICEM method: The \mathbf{P}_q finite element case. *SIAM Journal on Numerical Analysis*, 52(4):

- 1497–1524, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [JMO17] Oliver Junge, Daniel Matthes, and Horst Osberger. A fully discrete variational scheme for solving nonlinear Fokker–Planck equations in multiple space dimensions. *SIAM Journal on Numerical Analysis*, 55(1):419–443, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [JN11] Volker John and Julia Novo. Error analysis of the SUPG finite element discretization of evolutionary convection–diffusion–reaction equations. *SIAM Journal on Numerical Analysis*, 49(3):1149–1176, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1149_s1.
- [JN15] Volker John and Julia Novo. Analysis of the pressure stabilized Petrov–Galerkin method for the evolutionary Stokes equations avoiding time step restrictions. *SIAM Journal on Numerical Analysis*, 53(2):1005–1031, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [JO10] **Junge:2017:FDV**
- [JP10] **Jeon:2010:HDG**
- [JP17] **Jerez:2017:ESS**
- [JS13] **Jensen:2013:CFE**
- Janovska:2010:NCA**
- Drahoslava Janovská and Gerhard Opfer. A note on the computation of all zeros of simple quaternionic polynomials. *SIAM Journal on Numerical Analysis*, 48(1):244–256, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Youngmok Jeon and Eun-Jae Park. A hybrid discontinuous Galerkin method for elliptic problems. *SIAM Journal on Numerical Analysis*, 48(5):1968–1983, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i5/p1968_s1.
- Silvia Jerez and Carlos Parés. Entropy stable schemes for degenerate convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 55(1):240–264, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Max Jensen and Iain Smears. On the convergence of finite element methods for Hamilton–Jacobi–Bellman equations. *SIAM*

- Journal on Numerical Analysis*, 51(1):137–162, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [JZ12]
- James:2015:NMO**
- [JV15] François James and Nicolas Vauchelet. Numerical methods for one-dimensional aggregation equations. *SIAM Journal on Numerical Analysis*, 53(2):895–916, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [KAD19]
- Jin:2013:PMS**
- [JW13] Shi Jin and Dongming Wei. A particle method for the semiclassical limit of the Schrödinger equation and the Vlasov–Poisson equations. *SIAM Journal on Numerical Analysis*, 50(6):3259–3279, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Kal12]
- Jiang:2014:FFG**
- [JWX14] Ying Jiang, Bo Wang, and Yuesheng Xu. A fast Fourier–Galerkin method solving a boundary integral equation for the biharmonic equation. *SIAM Journal on Numerical Analysis*, 52(5):2530–2554, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Kal16]
- Johnson:2012:CHM**
- Mathew A. Johnson and Kevin Zumbrun. Convergence of Hill’s method for nonselfadjoint operators. *SIAM Journal on Numerical Analysis*, 50(1):64–78, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p64_s1.
- Keith:2019:GOA**
- Brendan Keith, Ali Vaziri Astaneh, and Leszek F. Demkowicz. Goal-oriented adaptive mesh refinement for discontinuous Petrov–Galerkin methods. *SIAM Journal on Numerical Analysis*, 57(4):1649–1676, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kalvin:2012:PML**
- Victor Kalvin. Perfectly matched layers for diffraction gratings in inhomogeneous media. Stability and error estimates. *SIAM Journal on Numerical Analysis*, 49(1):309–330, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kaltenbacher:2016:RBA**
- Barbara Kaltenbacher. Regularization based on all-at-once formulations for inverse problems. *SIAM Journal on Numerical Analysis*, 54(4):2594–2618,

???? 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kammerer:2013:RHC

[Käm13]

Lutz Kämmerer. Reconstructing hyperbolic cross trigonometric polynomials by sampling along rank-1 lattices. *SIAM Journal on Numerical Analysis*, 51(5):2773–2796, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Karaa:2018:SFE

[Kar18]

Samir Karaa. Semidiscrete finite element analysis of time fractional parabolic problems: a unified approach. *SIAM Journal on Numerical Analysis*, 56(3):1673–1692, ??? 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kashiwabara:2013:FEM

[Kas13]

Takahito Kashiwabara. Finite element method for Stokes equations under leak boundary condition of friction type. *SIAM Journal on Numerical Analysis*, 51(4):2448–2469, ??? 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kawecki:2019:DGF

[Kaw19]

Ellya L. Kawecki. A discontinuous Galerkin finite element method for uniformly elliptic two dimensional

oblique boundary-value problems. *SIAM Journal on Numerical Analysis*, 57(2):751–778, ??? 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kaya:2010:IRR

[Kay10]

C. Yalçın Kaya. Inexact restoration for Runge–Kutta discretization of optimal control problems. *SIAM Journal on Numerical Analysis*, 48(4):1492–1517, ??? 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Klein:2012:LRF

[KB12]

Georges Klein and Jean-Paul Berrut. Linear rational finite differences from derivatives of barycentric rational interpolants. *SIAM Journal on Numerical Analysis*, 50(2):643–656, ??? 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Kashiwabara:2015:WPR

[KCDQ15]

Takahito Kashiwabara, Claudia Maria Colciago, Luca Dedè, and Alfio Quarteroni. Well-posedness, regularity, and convergence analysis of the finite element approximation of a generalized Robin boundary value problem. *SIAM Journal on Numerical Analysis*, 53(1):105–126, ??? 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [KCL13] **Kim:2013:SDG**
 Hyea Hyun Kim, Eric T. Chung, and Chak Shing Lee. A staggered discontinuous Galerkin method for the Stokes system. *SIAM Journal on Numerical Analysis*, 51(6):3327–3350, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KGM11] **Ketcheson:2011:SSP**
 David I. Ketcheson, Sigal Gottlieb, and Colin B. Macdonald. Strong stability preserving two-step Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 49(6):2618–2639, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2618_s1.
- [Ket11] **Ketcheson:2011:SSS**
 David I. Ketcheson. Step sizes for strong stability preservation with downwind-biased operators. *SIAM Journal on Numerical Analysis*, 49(4):1649–1660, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1649_s1.
- [Ket19] **Ketcheson:2019:RRK**
 David I. Ketcheson. Relaxation Runge–Kutta methods: Conservation and stability for inner-product norms. *SIAM Journal on Numerical Analysis*, 57(6):2850–2870, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KFJ16] **Kupper:2016:APT**
 Kerstin Küpper, Martin Frank, and Shi Jin. An asymptotic preserving two-dimensional staggered grid method for multiscale transport equations. *SIAM Journal on Numerical Analysis*, 54(1):440–461, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KH14] **Kamenski:2014:HNR**
 Lennard Kamenski and Weizhang Huang. How a nonconvergent recovered Hessian works in mesh adaptation. *SIAM Journal on Numerical Analysis*, 52(4):1692–1708, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KHCR19] **Kirk:2019:AST**
 K. L. A. Kirk, T. L. Horvath, A. Cesmelioglu, and S. Rhebergen. Analysis of a space–time hybridizable discontinuous Galerkin method for the advection–diffusion problem on time-dependent domains. *SIAM Journal on Numerical Analysis*, 57(4):1677–1696, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Kim11] **Kim:2011:GPE**
Kwang-Yeon Kim. Guaranteed a posteriori error estimator for mixed finite element methods of linear elasticity with weak stress symmetry. *SIAM Journal on Numerical Analysis*, 49(6):2364–2385, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2364_s1.
- [KKN19] **Karlsen:2010:CNF**
Kenneth H. Karlsen and Trygve K. Karper. A convergent nonconforming finite element method for compressible Stokes flow. *SIAM Journal on Numerical Analysis*, 48(5):1846–1876, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KK10] **Kwon:2011:SOF**
YongHoon Kwon and Younhee Lee. A second-order finite difference method for option pricing under jump-diffusion models. *SIAM Journal on Numerical Analysis*, 49(6):2598–2617, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2598_s1.
- [KK18a] **Kahl:2018:GMT**
Karsten Kahl and Nils Kintscher. Geometric multigrid for the tight-binding Hamiltonian of graphene. *SIAM Journal on Numerical Analysis*, 56(1):499–519, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KK18b] **Katsaounis:2018:PEA**
Theodoros Katsaounis and Irene Kyza. A posteriori error analysis for evolution nonlinear Schrödinger equations up to the critical exponent. *SIAM Journal on Numerical Analysis*, 56(3):1405–1434, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KKN19] **Keshavarzzadeh:2019:CAT**
Vahid Keshavarzzadeh, Robert M. Kirby, and Akil Narayan. Convergence acceleration for time-dependent parametric multifidelity models. *SIAM Journal on Numerical Analysis*, 57(3):1344–1368, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KL11] **Kwon:2011:SOF**
YongHoon Kwon and Younhee Lee. A second-order finite difference method for option pricing under jump-diffusion models. *SIAM Journal on Numerical Analysis*, 49(6):2598–2617, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2598_s1.
- [KL13] **Kopteva:2013:MNP**
Natalia Kopteva and Torsten Linss. Maximum norm a posteriori error estimation for parabolic problems using elliptic reconstructions. *SIAM Journal on Numerical Analysis*, 51(3):1494–1524, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [KLM15] **Kuberry:2015:AFS**
 P. Kuberry and H. Lee. Analysis of a fluid-structure interaction problem recast in an optimal control setting. *SIAM Journal on Numerical Analysis*, 53(3):1464–1487, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KLL16] **Kovacs:2016:STD**
 Balázs Kovács, Buyang Li, and Christian Lubich. A-stable time discretizations preserve maximal parabolic regularity. *SIAM Journal on Numerical Analysis*, 54(6):3600–3624, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KLM11] **Kovacs:2011:FEA**
 Mihály Kovács, Stig Larsson, and Ali Mesforush. Finite element approximation of the Cahn–Hilliard–Cook equation. *SIAM Journal on Numerical Analysis*, 49(6):2407–2429, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2407_s1. See erratum [KLM14].
- [KLM14] **Kovacs:2014:EFE**
 Mihály Kovács, Stig Larsson, and Ali Mesforush. Erratum: Finite element approximation of the Cahn–Hilliard–Cook equation. *SIAM Journal on Numerical Analysis*, 52(5):2594–2597, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [KLM11].
- [KLP10] **Kim:2010:FDF**
 Hyea Hyun Kim, Chang-Ock Lee, and Eun-Hee Park. A FETI-DP formulation for the Stokes problem without primal pressure components. *SIAM Journal on Numerical Analysis*, 47(6):4142–4162, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KLP14] **Ketcheson:2014:IEP**
 David I. Ketcheson, Lajos Lóczi, and Matteo Parsani. Internal error propagation in explicit Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 52(5):2227–2249, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KLS10] **Kovacs:2010:FEA**
 Mihály Kovács, Stig Larsson, and Fardin Saedpanah. Finite element approximation of the linear stochastic wave equation with additive noise. *SIAM Journal on Numerical Analysis*, 48(2):408–427, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [KLR16] Emil Kieri, Christian Lubich, and Hanna Walach. Discretized dynamical low-rank approximation in the presence of small singular values. *SIAM Journal on Numerical Analysis*, 54(2):1020–1038, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KMR13] David I. Ketcheson, Colin B. MacDonald, and Steven J. Ruth. Spatially partitioned embedded Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 51(5):2887–2910, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KM12a] Stella Krell and Gianmarco Manzini. The discrete duality finite volume method for Stokes equations on three-dimensional polyhedral meshes. *SIAM Journal on Numerical Analysis*, 50(2):808–837, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KM12b] Stefan Kunis and Ines Melzer. A stable and accurate butterfly sparse Fourier transform. *SIAM Journal on Numerical Analysis*, 50(3):1777–1800, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [Yin09] for original (but unstable) monomial basis algorithm.
- [KM12c] Irene Kyza and Charalambos Makridakis. Analysis for time discrete approximations of blow-up solutions of semilinear parabolic equations. *SIAM Journal on Numerical Analysis*, 49(1):405–426, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KMU16] Thomas Kühn, Sebastian Mayer, and Tino Ullrich. Counting via entropy: New preasymptotics for the approximation numbers of Sobolev embeddings. *SIAM Journal on Numerical Analysis*, 54(6):3625–3647, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kno10] Petr Knobloch. A generalization of the local projection stabilization for convection–diffusion–reaction equations. *SIAM Journal on Numerical Analysis*, 48(2):659–680, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Kol14] **Kolb:2014:FGA**
 Oliver Kolb. On the full and global accuracy of a compact third order WENO Scheme. *SIAM Journal on Numerical Analysis*, 52(5):2335–2355, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kop15] **Kopteva:2015:MNP**
 Natalia Kopteva. Maximum-norm a posteriori error estimates for singularly perturbed reaction-diffusion problems on anisotropic meshes. *SIAM Journal on Numerical Analysis*, 53(6):2519–2544, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KOS19] **Knoller:2019:FIC**
 Marvin Knöller, Alexander Ostermann, and Katharina Schratz. A Fourier integrator for the cubic nonlinear Schrödinger equation with rough initial data. *SIAM Journal on Numerical Analysis*, 57(4):1967–1986, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kou17] **Kouri:2017:MAD**
 D. P. Kouri. A measure approximation for distributionally robust PDE-constrained optimization problems. *SIAM Journal on Numerical Analysis*, 55(6):3147–3172, 2017. CO-
- DEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kim:2010:PPA**
 Dongho Kim and Eun-Jae Park. A priori and a posteriori analysis of mixed finite element methods for nonlinear elliptic equations. *SIAM Journal on Numerical Analysis*, 48(3):1186–1207, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kreiss:2012:BEE**
 Heinz-Otto Kreiss and N. Anders Petersson. Boundary estimates for the elastic wave equation in almost incompressible materials. *SIAM Journal on Numerical Analysis*, 50(3):1556–1580, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kim:2011:ECE**
 Philsu Kim, Xiangfan Piao, and Sang Dong Kim. An error corrected Euler method for solving stiff problems based on Chebyshev collocation. *SIAM Journal on Numerical Analysis*, 49(6):2211–2230, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2211_s1.
- [KP10] **Kim:2010:PPA**
 Dongho Kim and Eun-Jae Park. A priori and a posteriori analysis of mixed finite element methods for nonlinear elliptic equations. *SIAM Journal on Numerical Analysis*, 48(3):1186–1207, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KP12] **Kreiss:2012:BEE**
 Heinz-Otto Kreiss and N. Anders Petersson. Boundary estimates for the elastic wave equation in almost incompressible materials. *SIAM Journal on Numerical Analysis*, 50(3):1556–1580, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KPK11] **Kim:2011:ECE**
 Philsu Kim, Xiangfan Piao, and Sang Dong Kim. An error corrected Euler method for solving stiff problems based on Chebyshev collocation. *SIAM Journal on Numerical Analysis*, 49(6):2211–2230, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2211_s1.

- [KPR13] **Kumar:2013:CAM**
K. Kumar, I. S. Pop, and F. A. Radu. Convergence analysis of mixed numerical schemes for reactive flow in a porous medium. *SIAM Journal on Numerical Analysis*, 51(4):2283–2308, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kro19] **Kroner:2019:ACE**
Heiko Kröner. Analysis of constants in error estimates for the finite element approximation of regularized nonlinear geometric evolution equations. *SIAM Journal on Numerical Analysis*, 57(5):2413–2435, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KRR15] **Klawonn:2015:FDM**
A. Klawonn, P. Radtke, and O. Rheinbach. FETI-DP methods with an adaptive coarse space. *SIAM Journal on Numerical Analysis*, 53(1):297–320, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KS12] **Ku:2012:LPE**
JaEun Ku and Alfred H. Schatz. Local a posteriori estimates on a nonconvex polygonal domain. *SIAM Journal on Numerical Analysis*, 50(2):906–924, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KS13] **Kou:2013:CDG**
Jisheng Kou and Shuyu Sun. Convergence of discontinuous Galerkin methods for incompressible two-phase flow in heterogeneous media. *SIAM Journal on Numerical Analysis*, 51(6):3280–3306, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KS14] **Kanschat:2014:DCD**
Guido Kanschat and Natasha Sharma. Divergence-conforming discontinuous Galerkin methods and C^0 interior penalty methods. *SIAM Journal on Numerical Analysis*, 52(4):1822–1842, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KSS12] **Konno:2012:MFE**
Juho Könnö, Dominik Schötzau, and Rolf Stenberg. Mixed finite element methods for problems with Robin boundary conditions. *SIAM Journal on Numerical Analysis*, 49(1):285–308, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KSS13] **Kuo:2013:QMC**
Frances Y. Kuo, Christoph Schwab, and Ian H. Sloan. Quasi-Monte Carlo finite element methods for a class of elliptic partial differential equations with random coefficients. *SIAM Journal on Numerical*

- Analysis*, 50(6):3351–3374, ????
2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [KSW18]
- Kou:2018:LDE**
- Jisheng Kou, Shuyu Sun, and Xiuhua Wang. Linearly decoupled energy-stable numerical methods for multicomponent two-phase compressible flow. *SIAM Journal on Numerical Analysis*, 56(6):3219–3248, ????. 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KST15] Jitendra Kumar, Jitraj Saha, and Evangelos Tsotsas. Development and convergence analysis of a finite volume scheme for solving breakage equation. *SIAM Journal on Numerical Analysis*, 53(4):1672–1689, ????. 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [KTK17]
- Kumar:2015:DCA**
- Kimeswenger:2014:CFB**
- [KSU14] A. Kimeswenger, O. Steinbach, and G. Unger. Coupled finite and boundary element methods for fluid-solid interaction eigenvalue problems. *SIAM Journal on Numerical Analysis*, 52(5):2400–2414, ????. 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kornhuber:2014:MMC] [Ku11a] Ralf Kornhuber, Christoph Schwab, and Maren-Wanda Wolf. Multilevel Monte Carlo finite element methods for stochastic elliptic variational inequalities. *SIAM Journal on Numerical Analysis*, 52(3):1243–1268, ????. 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ku:2011:PEE**
- JaEun Ku. Pointwise error estimates for first-order div least-squares finite element methods and applications to superconvergence and a posteriori error estimators. *SIAM Journal on Numerical Analysis*, 49(2):521–540, ????. 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p521_s1.
- Kadalbajoo:2017:EAF**
- Mohan K. Kadalbajoo, Lok Pati Tripathi, and Alpesh Kumar. An error analysis of a finite element method with IMEX-time semidiscretizations for some partial integro-differential inequalities arising in the pricing of American options. *SIAM Journal on Numerical Analysis*, 55(2):869–891, ????. 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Ku11b] Ku:2011:SNE JaEun Ku. Sharp L_2 -norm error estimates for first-order div least-squares methods. *SIAM Journal on Numerical Analysis*, 49(2):755–769, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p755_s1.
- [Kuz13] Kuznetsov:2013:CGS A. Kuznetsov. On the convergence of the Gaver–Stehfest algorithm. *SIAM Journal on Numerical Analysis*, 51(6):2984–2998, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KV10] Kohn:2010:NAS R. V. Kohn and H. M. Versieux. Numerical analysis of a steepest-descent PDE model for surface relaxation below the roughening temperature. *SIAM Journal on Numerical Analysis*, 48(5):1781–1800, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KW14a] Karper:2014:NAM Trygve K. Karper and Franziska Weber. A new angular momentum method for computing wave maps into spheres. *SIAM Journal on Numerical Analysis*, 52(4):2073–2091, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KW14b] Koppl:2014:OPE T. Köppl and B. Wohlmuth. Optimal a priori error estimates for an elliptic problem with Dirac right-hand side. *SIAM Journal on Numerical Analysis*, 52(4):1753–1769, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KW16] Keim:2016:HOA Christopher Keim and Holger Wendland. A high-order, analytically divergence-free approximation method for the time-dependent Stokes problem. *SIAM Journal on Numerical Analysis*, 54(2):1288–1312, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Kwa12] Kwak:2012:NCH Do Y. Kwak. A new class of higher order mixed finite volume methods for elliptic problems. *SIAM Journal on Numerical Analysis*, 50(4):1941–1958, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [KWB15] Kasolis:2015:AFD Fotios Kasolis, Eddie Wadbro, and Martin Berggren. Analysis of fictitious domain approximations of hard scatterers. *SIAM Journal on Numerical Analysis*, 53(5):2347–2362, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Kwak:2010:ABN**
- [KWC10] Do Y. Kwak, Kye T. Wee, and Kwang S. Chang. An analysis of a broken P_1 -nonconforming finite element method for interface problems. *SIAM Journal on Numerical Analysis*, 48(6):2117–2134, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2117_s1. See [KWC17].
- Kwak:2017:EAB**
- [KWC17] Do Y. Kwak, Kye T. Wee, and Kwang S. Chang. Erratum: An Analysis of a Broken P_1 -Nonconforming Finite Element Method for Interface Problems. *SIAM Journal on Numerical Analysis*, 55(4):2110–2111, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [KWC10].
- König:2016:CRE**
- [KWH16] Claudia König, Frank Werner, and Thorsten Hohage. Convergence rates for exponentially ill-posed inverse problems with impulsive noise. *SIAM Journal on Numerical Analysis*, 54(1):341–360, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kwok:2011:OAS**
- [Kwo11] Felix Kwok. Optimized additive Schwarz with harmonic extension as a discretization of the continuous parallel Schwarz method. *SIAM Journal on Numerical Analysis*, 49(3):1289–1316, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1289_s1.
- Kornhuber:2018:AMM**
- [KY18] Ralf Kornhuber and Evgenia Youett. Adaptive multi-level Monte Carlo methods for stochastic variational inequalities. *SIAM Journal on Numerical Analysis*, 56(4):1987–2007, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Kim:2015:OSM**
- [KZ15] Seungil Kim and Hui Zhang. Optimized Schwarz method with complete radiation transmission conditions for the Helmholtz equation in waveguides. *SIAM Journal on Numerical Analysis*, 53(3):1537–1558, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Loseille:2011:CMFa**
- [LA11a] Adrien Loseille and Frédéric Alauzet. Continuous mesh framework Part I: Well-posed continuous interpolation error. *SIAM Journal on Numerical Analysis*, 49(1):38–60, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (elec-

- tronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p38_s1.
- [LA11b] **Loseille:2011:CMFb**
Adrien Loseille and Frédéric Alauzet. Continuous mesh framework Part II: Validations and applications. *SIAM Journal on Numerical Analysis*, 49(1):61–86, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p61_s1.
- [LAFS16] **Lindqvist:2016:LTS**
Sofia Lindqvist, Peder Aursand, Tore Flåtten, and Anders Aase Solberg. Large time step TVD schemes for hyperbolic conservation laws. *SIAM Journal on Numerical Analysis*, 54(5):2775–2798, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Lau17] **Laurain:2017:SAR**
Antoine Laurain. Stability analysis of the reconstruction step of the Voronoi implicit interface method. *SIAM Journal on Numerical Analysis*, 55(1):1–30, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LB13] **Liang:2013:IAE**
Hui Liang and Hermann Brunner. Integral-algebraic equations: Theory of collocation methods I. *SIAM Journal on Numerical Analysis*, 51(4):2238–2259, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LB16] **Liang:2016:IAE**
Hui Liang and Hermann Brunner. Integral-algebraic equations: Theory of collocation methods II. *SIAM Journal on Numerical Analysis*, 54(4):2640–2663, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LB19] **Liang:2019:CCS**
Hui Liang and Hermann Brunner. The convergence of collocation solutions in continuous piecewise polynomial spaces for weakly singular Volterra integral equations. *SIAM Journal on Numerical Analysis*, 57(4):1875–1896, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LC15] **Li:2015:CAT**
Shishun Li and Xiao-Chuan Cai. Convergence analysis of two-level space–time additive Schwarz method for parabolic equations. *SIAM Journal on Numerical Analysis*, 53(6):2727–2751, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Loisel:2010:ODD

- [LCG⁺10] S. Loisel, J. Côté, M. J. Gander, L. Laayouni, and A. Qaddouri. Optimized domain decomposition methods for the spherical Laplacian. *SIAM Journal on Numerical Analysis*, 48(2): 524–551, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Louis:2018:FSP

- [LCJ⁺18] Maxime Louis, Benjamin Charlier, Paul Jusselin, Susovan Pal, and Stanley Durrleman. A fanning scheme for the parallel transport along geodesics on Riemannian manifolds. *SIAM Journal on Numerical Analysis*, 56(4):2563–2584, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2015:ESS

- [LCS15] Hailiang Liu, Wenli Cai, and Ning Su. Entropy satisfying schemes for computing selection dynamics in competitive interactions. *SIAM Journal on Numerical Analysis*, 53(3): 1393–1417, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2013:MAA

- [LCY13] Jianjun Liu, Liqun Cao, and Ningning Yan. Multiscale asymptotic analysis and computation of optimal control

for elliptic systems with constraints. *SIAM Journal on Numerical Analysis*, 51(4):1978–2004, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2015:MAO

- [LCYC15] Jianjun Liu, Liqun Cao, Ningning Yan, and Junzhi Cui. Multiscale approach for optimal design in conductivity of composite materials. *SIAM Journal on Numerical Analysis*, 53(3): 1325–1349, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Lee:2019:ACS

- [LD19] Hwi Lee and Qiang Du. Asymptotically compatible SPH-Like particle discretizations of one dimensional linear advection models. *SIAM Journal on Numerical Analysis*, 57(1):127–147, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Lee:2013:ODD

- [Lee13] Jong Ho Lee. Overlapping domain decomposition methods for numerically thin Reissner–Mindlin plates approximated with the Falk–Tu elements. *SIAM Journal on Numerical Analysis*, 51(1):24–46, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Lee15] **Lee:2015:BDD** Jong Ho Lee. A balancing domain decomposition by constraints deluxe method for Reissner–Mindlin plates with Falk–Tu elements. *SIAM Journal on Numerical Analysis*, 53(1):63–81, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LG11] **Lee:2011:AFE** Eunjung Lee and Max Gunzburger. Analysis of finite element discretizations of an optimal control formulation of the image registration problem. *SIAM Journal on Numerical Analysis*, 49(4):1321–1349, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1321_s1.
- [LG19] **Langer:2019:ODD** Andreas Langer and Fernando Gaspoz. Overlapping domain decomposition methods for total variation denoising. *SIAM Journal on Numerical Analysis*, 57(3):1411–1444, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LGS14] **Li:2014:UOE** Buyang Li, Huadong Gao, and Weiwei Sun. Unconditionally optimal error estimates of a Crank–Nicolson Galerkin method for the nonlinear thermistor equations. *SIAM Journal on Numerical Analysis*, 52(2):933–954, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LH12] **Leykekhman:2012:LEA** Dmitriy Leykekhman and Matthias Heinkenschloss. Local error analysis of discontinuous Galerkin methods for advection-dominated elliptic linear-quadratic optimal control problems. *SIAM Journal on Numerical Analysis*, 50(4):2012–2038, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LHM⁺16] **Laiu:2016:PFM** M. Paul Laiu, Cory D. Hauck, Ryan G. McClarren, Dianne P. O’Leary, and André L. Tits. Positive filtered P_N moment closures for linear kinetic equations. *SIAM Journal on Numerical Analysis*, 54(6):3214–3238, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Li10] **Li:2010:HOC** Shoufu Li. High order contractive Runge–Kutta methods for Volterra functional differential equations. *SIAM Journal on Numerical Analysis*, 47(6):4290–4325, 2010. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [Li18] Yu-Wen Li. Global super-convergence of the lowest-order mixed finite element on mildly structured meshes. *SIAM Journal on Numerical Analysis*, 56(2):792–815, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Li19] Yuwen Li. Some convergence and optimality results of adaptive mixed methods in finite element exterior calculus. *SIAM Journal on Numerical Analysis*, 57(4):2019–2042, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Liu11] Jianguo Liu. Penalty-factor-free discontinuous Galerkin methods for 2-dim Stokes problems. *SIAM Journal on Numerical Analysis*, 49(5):2165–2181, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2165_s1.
- [Liu13a] Jie Liu. Order of convergence of splitting schemes for both deterministic and stochastic nonlinear Schrödinger equations. *SIAM Journal on Numerical Analysis*, 51(4):1911–1932, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Liu13b] Jie Liu. Simple and efficient ALE methods with provable temporal accuracy up to fifth order for the Stokes equations on time varying domains. *SIAM Journal on Numerical Analysis*, 51(2):743–772, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LJC17] Zhilin Li, Haifeng Ji, and Xiaohong Chen. Accurate solution and gradient computation for elliptic interface problems with variable coefficients. *SIAM Journal on Numerical Analysis*, 55(2):570–597, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LK16] Lulu Liu and David E. Keyes. Convergence analysis for the multiplicative Schwarz preconditioned inexact Newton algorithm. *SIAM Journal on Numerical Analysis*, 54(5):3145–3166, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [LK18] **Laestadius:2018:AEC**
 Andre Laestadius and Simen Kvaal. Analysis of the extended coupled-cluster method in quantum chemistry. *SIAM Journal on Numerical Analysis*, 56(2):660–683, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LL11] **Lee:2011:SAF**
 Young-Ju Lee and Hengguang Li. On stability, accuracy, and fast solvers for finite element approximations of the axisymmetric Stokes problem by Hood–Taylor elements. *SIAM Journal on Numerical Analysis*, 49(2):668–691, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p668_s1.
- [LL13] **Lv:2013:OBF**
 Junliang Lv and Yonghai Li. Optimal biquadratic finite volume element methods on quadrilateral meshes. *SIAM Journal on Numerical Analysis*, 50(5):2379–2399, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LL15] **Li:2015:CTR**
 Shoufu Li and Yunfei Li. *B*-convergence theory of Runge–Kutta methods for stiff Volterra functional differential equations with infinite integration interval. *SIAM Journal on Numerical Analysis*, 53(6):2570–2583, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LL17] **Li:2017:QNC**
 Xingjie Helen Li and Jianfeng Lu. Quasi-nonlocal coupling of nonlocal diffusions. *SIAM Journal on Numerical Analysis*, 55(5):2394–2415, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LL19] **Li:2019:DCD**
 Lei Li and Jian-Guo Liu. A discretization of Caputo derivatives with application to time fractional SDEs and gradient flows. *SIAM Journal on Numerical Analysis*, 57(5):2095–2120, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LLZ18] **Liao:2018:SEEn**
 Hong lin Liao, Dongfang Li, and Jiwei Zhang. Sharp error estimate of the nonuniform L1 formula for linear reaction-subdiffusion equations. *SIAM Journal on Numerical Analysis*, 56(2):1112–1133, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LLMS17] **Lederer:2017:DFR**
 Philip L. Lederer, Alexander Linke, Christian Merdon, and

- Joachim Schöberl. Divergence-free reconstruction operators for pressure-robust Stokes discretizations with continuous pressure finite elements. *SIAM Journal on Numerical Analysis*, 55(3):1291–1314, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LLS13]
- [LLMZ19] Hong lin Liao, William McLean, and Jiwei Zhang. A discrete Grönwall inequality with applications to numerical schemes for subdiffusion problems. *SIAM Journal on Numerical Analysis*, 57(1):218–237, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LLS16]
- [LLN18] Viktor Linders, Tomas Lundquist, and Jan Nordström. On the order of accuracy of finite difference operators on diagonal norm based summation-by-parts form. *SIAM Journal on Numerical Analysis*, 56(2):1048–1063, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LLS18a]
- [LLNS19] Xue lei Lin, Michael K. Ng, and Hai-Wei Sun. Crank–Nicolson alternative direction implicit method for space-fractional diffusion equations with nonseparable coefficients. *SIAM Journal on Numerical Analysis*, 57(3):997–1019, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Lee:2013:LTM]
- Hyoseop Lee, Jinwoo Lee, and Dongwoo Sheen. Laplace transform method for parabolic problems with time-dependent coefficients. *SIAM Journal on Numerical Analysis*, 51(1):112–125, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Lafitte:2016:HOA]
- Pauline Lafitte, Annelies Lejon, and Giovanni Samaey. A high-order asymptotic-preserving scheme for kinetic equations using projective integration. *SIAM Journal on Numerical Analysis*, 54(1):1–33, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See erratum [LLS18a]. [Lafitte:2018:EHO]
- Pauline Lafitte, Annelies Lejon, and Giovanni Samaey. Erratum: A High-Order Asymptotic-Preserving Scheme for Kinetic Equations Using Projective Integration. *SIAM Journal on Numerical Analysis*, 56(2):1183–1185, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [LLS16].

- Lederer:2018:HDG**
- [LLS18b] Philip L. Lederer, Christoph Lehrenfeld, and Joachim Schöberl. Hybrid discontinuous Galerkin methods with relaxed h(div)-conformity for incompressible flows. Part I. *SIAM Journal on Numerical Analysis*, 56(4): 2070–2094, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LM10]
- Li:2019:ATS**
- [LLX19] Binjie Li, Hao Luo, and Xiaoping Xie. Analysis of a time-stepping scheme for time fractional diffusion problems with nonsmooth data. *SIAM Journal on Numerical Analysis*, 57(2):779–798, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LM11a]
- Lin:2015:PPI**
- [LLZ15] Tao Lin, Yanping Lin, and Xu Zhang. Partially penalized immersed finite element methods for elliptic interface problems. *SIAM Journal on Numerical Analysis*, 53(2):1121–1144, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LM11b]
- Liao:2010:EEF**
- [LLzSsS10] Hong lin Liao, Zhi zhong Sun, and Han sheng Shi. Error estimate of fourth-order compact scheme for linear Schrödinger equations. *SIAM Journal on Numerical Analysis*, 47(6): 4381–4401, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Liu:2010:AAP**
- Jian-Guo Liu and Luc Mieussens. Analysis of an asymptotic preserving scheme for linear kinetic equations in the diffusion limit. *SIAM Journal on Numerical Analysis*, 48(4):1474–1491, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Linh:2011:ASI**
- Vu Hoang Linh and Volker Mehrmann. Approximation of spectral intervals and leading directions for differential-algebraic equation via smooth singular value decompositions. *SIAM Journal on Numerical Analysis*, 49(5):1810–1835, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1810_s1.
- Lohndorf:2011:WEB**
- Maike Löhndorf and Jens Markus Melenk. Wavenumber-explicit *hp*-BEM for high frequency scattering. *SIAM Journal on Numerical Analysis*, 49(6): 2340–2363, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2340_s1.

siam.org/sinum/resource/1/sjnaam/v49/i6/p2340_s1.

Lai:2013:PLA

- [LM13a] Ming-Jun Lai and Leopold Matamba
Messi. Piecewise linear approximation of the continuous Rudin–Osher–Fatemi model for image denoising. *SIAM Journal on Numerical Analysis*, 50(5):2446–2466, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2013:PDD

- [LM13b] Yang Liu and Yoichiro Mori. Properties of discrete delta functions and local convergence of the immersed boundary method. *SIAM Journal on Numerical Analysis*, 50(6):2986–3015, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2014:CIB

- [LM14a] Yang Liu and Yoichiro Mori. L^p convergence of the immersed boundary method for stationary Stokes problems. *SIAM Journal on Numerical Analysis*, 52(1):496–514, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Lu:2014:SFB

- [LM14b] Jianfeng Lu and Pingbing Ming. Stability of a force-based hybrid method with planar sharp interface. *SIAM*

Journal on Numerical Analysis, 52(4):2005–2026, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2013:HFO

- [LMM⁺13] K. Liu, T. A. Manteuffel, S. F. McCormick, J. W. Ruge, and L. Tang. Hybrid first-order system least squares finite element methods with application to Stokes equations. *SIAM Journal on Numerical Analysis*, 51(4):2214–2237, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Le:2016:NST

- [LMM16] Kim Ngan Le, William McLean, and Kassem Mustapha. Numerical solution of the time-fractional Fokker–Planck equation with general forcing. *SIAM Journal on Numerical Analysis*, 54(3):1763–1784, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

LeFloch:2012:RBE

- [LMO12] Philippe G. LeFloch, Hasan Makhlof, and Bayer Okutmusur. Relativistic Burgers equations on curved spacetimes. Derivation and finite volume approximation. *SIAM Journal on Numerical Analysis*, 50(4):2136–2158, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [LMR10] **Lovadina:2010:ABP**
 Carlo Lovadina, David Mora, and Rodolfo Rodríguez. Approximation of the buckling problem for Reissner–Mindlin plates. *SIAM Journal on Numerical Analysis*, 48(2):603–632, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LMS13] **Li:2013:LSG**
 Huiyuan Li, Heping Ma, and Weiwei Sun. Legendre spectral Galerkin method for electromagnetic scattering from large cavities. *SIAM Journal on Numerical Analysis*, 51(1):353–376, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LMV13] **Lakkis:2013:IET**
 Omar Lakkis, Anotida Madzvamuse, and Chandrasekhar Venkataraman. Implicit–explicit timestepping with finite element approximation of reaction–diffusion systems on evolving domains. *SIAM Journal on Numerical Analysis*, 51(4):2309–2330, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LMY18] **Li:2018:NIM**
 Xiaoyue Li, Qianlin Ma, Hongfu Yang, and Chenggui Yuan. The numerical invariant measure of stochastic differential equations with Markovian switching. *SIAM Journal on Numerical Analysis*, 56(3):1435–1455, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LN18] **Li:2018:OPE**
 Wenbo Li and Ricardo H. Nochetto. Optimal pointwise error estimates for two-scale methods for the Monge–Ampère equation. *SIAM Journal on Numerical Analysis*, 56(3):1915–1941, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LNR11] **Lenz:2011:CFV**
 Martin Lenz, Simplicie Firmin Nemadjieu, and Martin Rumpf. A convergent finite volume scheme for diffusion on evolving surfaces. *SIAM Journal on Numerical Analysis*, 49(1):15–37, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p15_s1.
- [LO13a] **Liu:2013:VEE**
 Xuefeng Liu and Shin’ichi Oishi. Verified eigenvalue evaluation for the Laplacian over polygonal domains of arbitrary shape. *SIAM Journal on Numerical Analysis*, 51(3):1634–1654, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [LO13b] Vu Thai Luan and Alexander Ostermann. Exponential B -series: The stiff case. *SIAM Journal on Numerical Analysis*, 51(6):3431–3445, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Luan:2013:ESS**
- [LO17] Antoine Levitt and Christoph Ortner. Convergence and cycling in Walker-type saddle search algorithms. *SIAM Journal on Numerical Analysis*, 55(5):2204–2227, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Levitt:2017:CCW**
- [Log17] Daniel Loghin. Constraint interface preconditioning for the incompressible Stokes equations. *SIAM Journal on Numerical Analysis*, 55(5):2286–2311, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Loghin:2017:CIP**
- [Loi13] Sébastien Loisel. Condition number estimates for the nonoverlapping optimized Schwarz method and the 2-Lagrange multiplier method for general domains and cross points. *SIAM Journal on Numerical Analysis*, 51(6):3062–3083, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Loisel:2013:CNE**
- [LOR11] Hyesuk K. Lee, Maxim A. Olshanskii, and Leo G. Rebholz. On error analysis for the 3D Navier–Stokes equations in velocity-vorticity-helicity form. *SIAM Journal on Numerical Analysis*, 49(2):711–732, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p711_s1. **Lee:2011:EAN**
- [LOV15] Christian Lubich, Ivan V. Oseledets, and Bart Vandereycken. Time integration of tensor trains. *SIAM Journal on Numerical Analysis*, 53(2):917–941, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lubich:2015:TIT**
- [LOX18] Christoph Lehrenfeld, Maxim A. Olshanskii, and Xianmin Xu. A stabilized trace finite element method for partial differential equations on evolving surfaces. *SIAM Journal on Numerical Analysis*, 56(3):1643–1672, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lehrenfeld:2018:STF**
- [LQB14] Songting Luo, Jianliang Qian, and Robert Burridge. High-order factorization based high-order hybrid fast sweeping methods for point-source **Luo:2014:HOF**

- eikonal equations. *SIAM Journal on Numerical Analysis*, 52(1):23–44, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LR13]
- [LQT16] Dong Li, Zhonghua Qiao, and Tao Tang. Characterizing the stabilization size for semi-implicit Fourier-spectral method to phase field equations. *SIAM Journal on Numerical Analysis*, 54(3):1653–1681, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2016:CSS**
- [LQZ17] Xiao Li, Zhonghua Qiao, and Hui Zhang. Convergence of a fast explicit operator splitting method for the epitaxial growth model with slope selection. *SIAM Journal on Numerical Analysis*, 55(1):265–285, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2017:CFE**
- [LR12] Marko Lindner and Steffen Roch. Finite sections of random Jacobi operators. *SIAM Journal on Numerical Analysis*, 50(1):287–306, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p287_s1. **Lindner:2012:FSR**
- [LR14] Jean-Philippe Lessard and Christian Reinhardt. Rigorous numerics for nonlinear differential equations using Chebyshev series. *SIAM Journal on Numerical Analysis*, 52(1):1–22, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lessard:2014:RNN**
- [LR15] R. R. Lederman and V. Rokhlin. On the analytical and numerical properties of the truncated Laplace transform I. *SIAM Journal on Numerical Analysis*, 53(3):1214–1235, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lederman:2015:ANP**
- [LR16] R. R. Lederman and V. Rokhlin. On the analytical and numerical properties of the truncated Laplace transform. Part II. *SIAM Journal on Numerical Analysis*, 54(2):665–687, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lederman:2016:ANP**
- [LR13] Christoph Lehrenfeld and Arnold Reusken. Analysis of a Nitsche XFEM-DG discretization for a class of two-phase mass transport problems. *SIAM Journal on Numerical Analysis*, 51(2):958–983, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lehrenfeld:2013:ANX**

- 0036-1429 (print), 1095-7170 (electronic). **Lin:2013:BEF**
- [LR18a] Claudine Leonhard and Andreas Rößler. Enhancing the order of the Milstein scheme for stochastic partial differential equations with commutative noise. *SIAM Journal on Numerical Analysis*, 56(4):2585–2622, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Leonhard:2018:EOM**
- [LR18b] Xiaoli Li and Hongxing Rui. Superconvergence of characteristics marker and cell scheme for the Navier–Stokes equations on nonuniform grids. *SIAM Journal on Numerical Analysis*, 56(3):1313–1337, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2018:SCM**
- [LS13a] Buyang Li and Weiwei Sun. Unconditional convergence and optimal error estimates of a Galerkin-mixed FEM for incompressible miscible flow in porous media. *SIAM Journal on Numerical Analysis*, 51(4):1959–1977, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2013:UCO**
- [LS13b] Runchang Lin and Martin Stynes. A balanced finite element method for singularly perturbed reaction-diffusion problems. *SIAM Journal on Numerical Analysis*, 50(5):2729–2743, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Lin:2013:BEF**
- [LS14] Buyang Li and Weiwei Sun. Linearized FE approximations to a nonlinear gradient flow. *SIAM Journal on Numerical Analysis*, 52(6):2623–2646, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2014:LFA**
- [LS15] Buyang Li and Weiwei Sun. Regularity of the diffusion-dispersion tensor and error analysis of Galerkin FEMs for a porous medium flow. *SIAM Journal on Numerical Analysis*, 53(3):1418–1437, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Li:2015:RDD**
- [LS16] Paul Leopardi and Ari Stern. The abstract Hodge–Dirac operator and its stable discretization. *SIAM Journal on Numerical Analysis*, 54(6):3258–3279, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Leopardi:2016:AHD**

- [LS17] Li:2017:MRF Buyang Li and Weiwei Sun. Maximal regularity of fully discrete finite element solutions of parabolic equations. *SIAM Journal on Numerical Analysis*, 55(2):521–542, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LSBTS19] Lee:2019:AHM Jeonghun J. Lee, Stephen J. Shannon, Tan Bui-Thanh, and John N. Shadid. Analysis of an HDG method for linearized incompressible resistive MHD equations. *SIAM Journal on Numerical Analysis*, 57(4):1697–1722, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LSW10] LeGia:2010:MAS Q. T. Le Gia, I. H. Sloan, and H. Wendland. Multiscale analysis in Sobolev spaces on the sphere. *SIAM Journal on Numerical Analysis*, 48(6):2065–2090, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v48/i6/p2065_s1.
- [LSW18] Li:2018:NNA Qin Li, Ruiwen Shu, and Li Wang. A new numerical approach to inverse transport equation with error analysis. *SIAM Journal on Numerical Analysis*, 56(6):3358–3385, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LSZ11] Liu:2011:PTS Fang Liu, Martin Stynes, and Aihui Zhou. Postprocessed two-scale finite element discretizations, Part I. *SIAM Journal on Numerical Analysis*, 49(5):1947–1971, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1947_s1.
- [LSZ18] Liu:2018:OEE Yong Liu, Chi-Wang Shu, and Mengping Zhang. Optimal error estimates of the semidiscrete central discontinuous Galerkin methods for linear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 56(1):520–541, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LT13] Li:2013:NDD Jing Li and Xuemin Tu. A nonoverlapping domain decomposition method for incompressible Stokes equations with continuous pressures. *SIAM Journal on Numerical Analysis*, 51(2):1235–1253, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Layton:2013:ALT**
- [LTT13] William Layton, Hoang Tran, and Catalin Trenchea. Analysis of long time stability and errors of two partitioned methods for uncoupling evolutionary groundwater–surface water flows. *SIAM Journal on Numerical Analysis*, 51(1):248–272, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LV16a]
- Li:2013:PTA**
- [LTX13] Xianjuan Li, Tao Tang, and Chuanju Xu. Parallel in time algorithm with spectral-subdomain enhancement for Volterra integral equations. *SIAM Journal on Numerical Analysis*, 51(3):1735–1756, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [LV16b]
- Lucas:2011:MNE**
- [Luc11] Timothy A. Lucas. Maximum-norm estimates for an immunology model using reaction-diffusion equations with stochastic source terms. *SIAM Journal on Numerical Analysis*, 49(6):2256–2276, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2256_s1. [LV17]
- Leykekhman:2013:OPE**
- [LV13] Dmitriy Leykekhman and Boris Vexler. Optimal a priori error estimates of parabolic optimal control problems with pointwise control. *SIAM Journal on Numerical Analysis*, 51(5):2797–2821, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Leykekhman:2016:FEP**
- Dmitriy Leykekhman and Boris Vexler. Finite element pointwise results on convex polyhedral domains. *SIAM Journal on Numerical Analysis*, 54(2):561–587, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Leykekhman:2016:PBA**
- Dmitriy Leykekhman and Boris Vexler. Pointwise best approximation results for Galerkin finite element solutions of parabolic problems. *SIAM Journal on Numerical Analysis*, 54(3):1365–1384, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Leykekhman:2017:GIP**
- Dmitriy Leykekhman and Boris Vexler. Global and interior pointwise best approximation results for the gradient of Galerkin solutions for parabolic problems. *SIAM Journal on Numerical Analysis*, 55(4):2025–2049, 2017. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [LV18] **Leykekhman:2018:DMP**
 Dmitriy Leykekhman and Boris Vexler. Discrete maximal parabolic regularity for Galerkin finite element methods for nonautonomous parabolic problems. *SIAM Journal on Numerical Analysis*, 56(4):2178–2202, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LVW18] **Lubich:2018:TIR**
 Christian Lubich, Bart Vandereycken, and Hanna Walach. Time integration of rank-constrained Tucker tensors. *SIAM Journal on Numerical Analysis*, 56(3):1273–1290, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LW16] **Li:2016:FFE**
 Yu-Wen Li and Xinyuan Wu. Functionally fitted energy-preserving methods for solving oscillatory nonlinear Hamiltonian systems. *SIAM Journal on Numerical Analysis*, 54(4):2036–2059, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LW18] **Luo:2018:EAN**
 Yan Luo and Zhu Wang. An ensemble algorithm for numerical solutions to deterministic and random parabolic PDEs. *SIAM Journal on Numerical Analysis*, 56(2):859–876, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LW19] **Li:2019:FCF**
 Yonglin Li and Haijun Wu. FEM and CIP-FEM for Helmholtz equation with high wave number and perfectly matched layer truncation. *SIAM Journal on Numerical Analysis*, 57(1):96–126, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LWD17] **Li:2017:GFE**
 Yajing Li, Yejuan Wang, and Weihua Deng. Galerkin finite element approximations for stochastic space-time fractional wave equations. *SIAM Journal on Numerical Analysis*, 55(6):3173–3202, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LWW+15] **Liu:2015:ADK**
 Xin Liu, Zaiwen Wen, Xiao Wang, Michael Ulbrich, and Yaxiang Yuan. On the analysis of the discretized Kohn-Sham density functional theory. *SIAM Journal on Numerical Analysis*, 53(4):1758–1785, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [LWZ19] Liu:2019:CFO Yujie Liu, Junping Wang, and Qingsong Zou. A conservative flux optimization finite element method for convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 57(3):1238–1262, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LX14a] Li:2014:SAU Huiyuan Li and Yuan Xu. Spectral approximation on the unit ball. *SIAM Journal on Numerical Analysis*, 52(6):2647–2675, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LX14b] Liu:2014:RTD Yongxiang Liu and Xuejun Xu. A Robin-type domain decomposition method with red–black partition. *SIAM Journal on Numerical Analysis*, 52(5):2381–2399, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LX16] Li:2016:BPN Binjie Li and Xiaoping Xie. BPX preconditioner for non-standard finite element methods for diffusion problems. *SIAM Journal on Numerical Analysis*, 54(2):1147–1168, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LX17] Lu:2017:RNB Zhaosong Lu and Lin Xiao. A randomized nonmonotone block proximal gradient method for a class of structured nonlinear programming. *SIAM Journal on Numerical Analysis*, 55(6):2930–2955, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LXY13] Lai:2013:IIR Ming-Jun Lai, Yangyang Xu, and Wotao Yin. Improved iteratively reweighted least squares for unconstrained smoothed ℓ_q minimization. *SIAM Journal on Numerical Analysis*, 51(2):927–957, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LXZ18] Li:2018:HOA Hao Li, Shusen Xie, and Xiangxiong Zhang. A high order accurate bound-preserving compact finite difference scheme for scalar convection diffusion equations. *SIAM Journal on Numerical Analysis*, 56(6):3308–3345, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LY11] Li:2011:HME Jiequan Li and Zhicheng Yang. Heuristic modified equation analysis on oscillations in numerical solutions of conservation laws. *SIAM Journal*

- on *Numerical Analysis*, 49(6): 2386–2406, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2386_s1.
- [LY12] Hailiang Liu and Hui Yu. An entropy satisfying conservative method for the Fokker–Planck equation of the finitely extensible nonlinear elastic dumbbell model. *SIAM Journal on Numerical Analysis*, 50(3): 1207–1239, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LY13] Xue Luo and Stephen S.-T. Yau. Hermite spectral method with hyperbolic cross approximations to high-dimensional parabolic PDEs. *SIAM Journal on Numerical Analysis*, 51(6):3186–3212, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LYYM10] Wenbin Liu, Danping Yang, Lei Yuan, and Chaoqun Ma. Finite element approximations of an optimal control problem with integral state constraint. *SIAM Journal on Numerical Analysis*, 48(3):1163–1185, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LYZ15] Yanping Lin, Min Yang, and Qingsong Zou. L^2 error estimates for a class of any order finite volume schemes over quadrilateral meshes. *SIAM Journal on Numerical Analysis*, 53(4):2030–2050, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LYZZ18a] Runchang Lin, Xiu Ye, Shangyou Zhang, and Peng Zhu. A weak Galerkin finite element method for singularly perturbed convection–diffusion–reaction problems. *SIAM Journal on Numerical Analysis*, 56(3):1482–1497, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LYZZ18b] Yongchao Liu, Xiaoming Yuan, Shangzhi Zeng, and Jin Zhang. Partial error bound conditions and the linear convergence rate of the alternating direction method of multipliers. *SIAM Journal on Numerical Analysis*, 56(4):2095–2123, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Liu:2012:ESC

Lin:2015:EEC

Lin:2018:WGF

Luo:2013:HSM

Liu:2018:PEB

Liu:2010:FEA

- [LZ12] **Li:2012:CIS**
 Nan Li and Lihong Zhi. Computing isolated singular solutions of polynomial systems: Case of breadth one. *SIAM Journal on Numerical Analysis*, 50(1):354–372, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p354_s1.
- [LZ14] **Li:2014:VEB**
 Nan Li and Lihong Zhi. Verified error bounds for isolated singular solutions of polynomial systems. *SIAM Journal on Numerical Analysis*, 52(4):1623–1640, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LZ17] **Lechleiter:2017:CNS**
 Armin Lechleiter and Ruming Zhang. A convergent numerical scheme for scattering of aperiodic waves from periodic surfaces based on the Floquet–Bloch transform. *SIAM Journal on Numerical Analysis*, 55(2):713–736, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LZH18] **Li:2018:CRE**
 Yan Li, Zhengce Zhang, and Bei Hu. Convergence rate of an explicit finite difference scheme for a credit rating migration problem. *SIAM Journal on Numerical Analysis*, 56(4):2430–2460, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [LZZ18] **Li:2018:ESO**
 Buyang Li, Jiwei Zhang, and Chunxiong Zheng. An efficient second-order finite difference method for the one-dimensional Schrödinger equation with absorbing boundary conditions. *SIAM Journal on Numerical Analysis*, 56(2):766–791, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MA18] **Motamed:2018:MDG**
 Mohammad Motamed and Daniel Appelö. A MultiOrder discontinuous Galerkin Monte Carlo method for hyperbolic problems with stochastic parameters. *SIAM Journal on Numerical Analysis*, 56(1):448–468, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Mac10] **Machorro:2010:DFE**
 Eric A. Machorro. Discontinuous finite elements for a hyperbolic problem with singular coefficient: a convergence theory for one-dimensional spherical transport. *SIAM Journal on Numerical Analysis*, 48(4):1555–1578, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Maclean:2015:NIB**
- [Mac15] John Maclean. A note on implementations of the boosting algorithm and heterogeneous multiscale methods. *SIAM Journal on Numerical Analysis*, 53(5):2472–2487, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mustapha:2014:DPG**
- [MAF14] K. Mustapha, B. Abdallah, and K. M. Furati. A discontinuous Petrov–Galerkin method for time-fractional diffusion equations. *SIAM Journal on Numerical Analysis*, 52(5):2512–2529, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mohammadi:2019:PFA**
- [MAF19] Fatemeh Mohammadi, Carmen Arévalo, and Claus Führer. A polynomial formulation of adaptive strong stability preserving multistep methods. *SIAM Journal on Numerical Analysis*, 57(1):27–43, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mao:2015:ASE**
- [Mao15] Xuerong Mao. Almost sure exponential stability in the numerical simulation of stochastic differential equations. *SIAM Journal on Numerical Analysis*, 53(1):370–389, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Massjung:2013:UDG**
- [Mas13] Ralf Massjung. An unfitted discontinuous Galerkin method applied to elliptic interface problems. *SIAM Journal on Numerical Analysis*, 50(6):3134–3162, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Maset:2015:CMNa**
- [Mas15a] S. Maset. The collocation method in the numerical solution of boundary value problems for neutral functional differential equations. Part I: Convergence results. *SIAM Journal on Numerical Analysis*, 53(6):2771–2793, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Maset:2015:CMNb**
- [Mas15b] S. Maset. The collocation method in the numerical solution of boundary value problems for neutral functional differential equations. Part II: Differential equations with deviating arguments. *SIAM Journal on Numerical Analysis*, 53(6):2794–2821, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [MB16] **Miyatake:2016:CEP**
 Yuto Miyatake and John C. Butcher. A characterization of energy-preserving methods and the construction of parallel integrators for Hamiltonian systems. *SIAM Journal on Numerical Analysis*, 54(3):1993–2013, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MBMS11] **Mustapha:2011:VDG**
 K. Mustapha, H. Brunner, H. Mustapha, and D. Schötzau. An *hp*-version discontinuous Galerkin method for integro-differential equations of parabolic type. *SIAM Journal on Numerical Analysis*, 49(4):1369–1396, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1369_s1.
- [MC18] **Ma:2018:CNF**
 Chupeng Ma and Liqun Cao. A Crank–Nicolson finite element method and the optimal error estimates for the modified time-dependent Maxwell–Schrödinger equations. *SIAM Journal on Numerical Analysis*, 56(1):369–396, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MFD17] **Manzini:2017:CSD**
 G. Manzini, D. Funaro, and G. L. Delzanno. Convergence of spectral discretizations of the Vlasov–Poisson system. *SIAM Journal on Numerical Analysis*, 55(5):2312–2335, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MGGJ13] **Martin:2013:CPC**
 Benjamin Martin, Alexandre Goldsztejn, Laurent Granvilliers, and Christophe Jermann. Certified parallelotope continuation for one-manifolds. *SIAM Journal on Numerical Analysis*, 51(6):3373–3401, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MH18] **Matthysen:2018:FAA**
 Roel Matthysen and Daan Huybrechs. Function approximation on arbitrary domains using Fourier extension frames. *SIAM Journal on Numerical Analysis*, 56(3):1360–1385, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [mHLZ16] **He:2016:UFE**
 Wen ming He, Runchang Lin, and Zhimin Zhang. Ultraconvergence of finite element method by Richardson extrapolation for elliptic problems with constant coefficients. *SIAM Journal on Numerical Analysis*, 54(4):2302–2322, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Migliorati:2019:AAO

- [Mig19] Giovanni Migliorati. Adaptive approximation by optimal weighted least-squares methods. *SIAM Journal on Numerical Analysis*, 57(5):2217–2245, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mirebeau:2014:AFM

- [Mir14] Jean-Marie Mirebeau. Anisotropic fast-marching on Cartesian grids using lattice basis reduction. *SIAM Journal on Numerical Analysis*, 52(4):1573–1599, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mirebeau:2016:MSD

- [Mir16] Jean-Marie Mirebeau. Minimal stencils for discretizations of anisotropic PDEs preserving causality or the maximum principle. *SIAM Journal on Numerical Analysis*, 54(3):1582–1611, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mirzaei:2018:PGK

- [Mir18] Davoud Mirzaei. A Petrov–Galerkin kernel approximation on the sphere. *SIAM Journal on Numerical Analysis*, 56(1):274–295, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mirebeau:2019:RFM

- [Mir19] Jean-Marie Mirebeau. Riemannian fast-marching on Cartesian grids, using Voronoi’s first reduction of quadratic forms. *SIAM Journal on Numerical Analysis*, 57(6):2608–2655, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Mirzaee:2011:SIA

- [MJRK11] Hanieh Mirzaee, Liangyue Ji, Jennifer K. Ryan, and Robert M. Kirby. Smoothness-Increasing Accuracy-Conserving (SIAC) postprocessing for discontinuous Galerkin solutions over structured triangular meshes. *SIAM Journal on Numerical Analysis*, 49(5):1899–1920, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1899_s1.

Mao:2018:SME

- [MK18] Zhiping Mao and George Em Karniadakis. A spectral method (of exponential convergence) for singular solutions of the diffusion equation with general two-sided fractional derivative. *SIAM Journal on Numerical Analysis*, 56(1):24–49, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [MKW14] **Magpantay:2014:ASP**
 F. M. G. Magpantay, N. Kosovalić, and J. Wu. An age-structured population model with state-dependent delay: Derivation and numerical integration. *SIAM Journal on Numerical Analysis*, 52(2):735–756, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MLMS17] **Manzini:2017:CAM**
 G. Manzini, K. Lipnikov, J. D. Moulton, and M. Shashkov. Convergence analysis of the mimetic finite difference method for elliptic problems with staggered discretizations of diffusion coefficients. *SIAM Journal on Numerical Analysis*, 55(6):2956–2981, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MM10] **Manni:2010:SCO**
 Carla Manni and Marie-Laurence Mazure. Shape constraints and optimal bases for C^1 Hermite interpolatory subdivision schemes. *SIAM Journal on Numerical Analysis*, 48(4):1254–1280, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MM13a] **Marz:2013:CSG**
 Thomas März and Colin B. Macdonald. Calculus on surfaces with general closest point functions. *SIAM Journal on Numerical Analysis*, 50(6):3303–3328, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MM13b] **Mustapha:2013:SDG**
 Kassem Mustapha and William McLean. Superconvergence of a discontinuous Galerkin method for fractional diffusion and wave equations. *SIAM Journal on Numerical Analysis*, 51(1):491–515, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MM14] **Monasse:2014:GEE**
 L. Monasse and R. Monneau. Gradient entropy estimate and convergence of a semi-explicit Scheme for diagonal hyperbolic systems. *SIAM Journal on Numerical Analysis*, 52(6):2792–2814, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MM16] **Merigot:2016:MGA**
 Quentin Mérigot and Jean-Marie Mirebeau. Minimal geodesics along volume-preserving maps, through semidiscrete optimal transport. *SIAM Journal on Numerical Analysis*, 54(6):3465–3492, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Mora:2017:SNS**
- [MMJ⁺17] C. M. Mora, H. A. Mardones, J. C. Jimenez, M. Selva, and R. Biscay. A stable numerical scheme for stochastic differential equations with multiplicative noise. *SIAM Journal on Numerical Analysis*, 55(4):1614–1649, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Meddahi:2013:FES**
- [MMR13] Salim Meddahi, David Mora, and Rodolfo Rodríguez. Finite element spectral analysis for the mixed formulation of the elasticity equations. *SIAM Journal on Numerical Analysis*, 51(2):1041–1063, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Maday:2016:CAG**
- [MMT16] Y. Maday, O. Mula, and G. Turinici. Convergence analysis of the generalized empirical interpolation method. *SIAM Journal on Numerical Analysis*, 54(3):1713–1731, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Moret:2011:CKS**
- [MN11] Igor Moret and Paolo Novati. On the convergence of Krylov subspace methods for matrix Mittag-Leffler functions. *SIAM Journal on Numerical Analysis*, 49(5):2144–2164, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2144_s1.
- Memon:2012:PEA**
- [MNP12] Sajid Memon, Neela Nataraj, and Amiya Kumar Pani. An a posteriori error analysis of mixed finite element Galerkin approximations to second order linear parabolic problems. *SIAM Journal on Numerical Analysis*, 50(3):1367–1393, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mazzucato:2013:NGF**
- [MNQ13] Anna L. Mazzucato, Victor Nistor, and Qingqin Qu. A non-conforming generalized finite element method for transmission problems. *SIAM Journal on Numerical Analysis*, 51(1):555–576, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Merigot:2014:HCL**
- [MO14] Quentin Mérigot and Édouard Oudet. Handling convexity-like constraints in variational problems. *SIAM Journal on Numerical Analysis*, 52(5):2466–2487, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Moo16] **Moosmuller:2016:AHS**
 Caroline Moosmüller. C^1 analysis of Hermite subdivision schemes on manifolds. *SIAM Journal on Numerical Analysis*, 54(5):3003–3031, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Moo19] **Moore:2019:STM**
 Stephen Edward Moore. Space-time multipatch discontinuous Galerkin isogeometric analysis for parabolic evolution problems. *SIAM Journal on Numerical Analysis*, 57(3):1471–1493, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Mor16] **Morgenstern:2016:GST**
 Philipp Morgenstern. Globally structured three-dimensional analysis-suitable T-splines: Definition, linear independence and m -graded local refinement. *SIAM Journal on Numerical Analysis*, 54(4):2163–2186, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MPPS10] **Mielke:2010:EES**
 Alexander Mielke, Laetitia Paoli, Adrien Petrov, and Ulisse Stefanelli. Error estimates for space-time discretizations of a rate-independent variational inequality. *SIAM Journal on Numerical Analysis*, 48(5):1625–1646, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MPSV18] **Meidner:2018:FEF**
 Dominik Meidner, Johannes Pfefferer, Klemens Schürholz, and Boris Vexler. hp -finite elements for fractional diffusion. *SIAM Journal on Numerical Analysis*, 56(4):2345–2374, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MRL14] **Margotti:2014:KVR**
 Fábio Margotti, Andreas Rieder, and Antonio Leitaño. A Kaczmarz version of the REGINN–Landweber iteration for ill-posed problems in Banach spaces. *SIAM Journal on Numerical Analysis*, 52(3):1439–1465, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MS11] **Melenk:2011:WEC**
 J. M. Melenk and S. Sauter. Wavenumber explicit convergence analysis for Galerkin discretizations of the Helmholtz equation. *SIAM Journal on Numerical Analysis*, 49(3):1210–1243, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1210_s1.

- Munzenmaier:2012:FOS**
- [MS12] Steffen Münzenmaier and Gerhard Starke. First-order system least squares for coupled Stokes–Darcy flow. *SIAM Journal on Numerical Analysis*, 49(1):387–404, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- McLachlan:2014:MTI**
- [MS14] Robert I. McLachlan and Ari Stern. Modified trigonometric integrators. *SIAM Journal on Numerical Analysis*, 52(3):1378–1397, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Muller:2017:SIP**
- [MSS17] Fabian Müller, Dominik Schötzau, and Christoph Schwab. Symmetric interior penalty discontinuous Galerkin methods for elliptic problems in polygons. *SIAM Journal on Numerical Analysis*, 55(5):2490–2521, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mattingly:2010:CNT**
- [MST10] Jonathan C. Mattingly, Andrew M. Stuart, and M. V. Tretyakov. Convergence of numerical time-averaging and stationary measures via Poisson equations. *SIAM Journal on Numerical Analysis*, 48(2):552–577, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- McLachlan:2011:LSP**
- [MST11] R. I. McLachlan, Y. Sun, and P. S. P. Tse. Linear stability of partitioned Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 49(1):232–263, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p232_s1.
- Meng:2013:SDG**
- [MSZW13] Xiong Meng, Chi-Wang Shu, Qiang Zhang, and Boying Wu. Superconvergence of discontinuous Galerkin methods for scalar nonlinear conservation laws in one space dimension. *SIAM Journal on Numerical Analysis*, 50(5):2336–2356, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Mishra:2011:CPS**
- [MT11] Siddhartha Mishra and Eitan Tadmor. Constraint preserving schemes using potential-based fluxes. II. genuinely multidimensional systems of conservation laws. *SIAM Journal on Numerical Analysis*, 49(3):1023–1045, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1023_s1.

- [MT13] **Meyer:2013:PFE**
 Christian Meyer and Oliver Thoma. A priori finite element error analysis for optimal control of the obstacle problem. *SIAM Journal on Numerical Analysis*, 51(1):605–628, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MT16] **Michel:2016:ROF**
 Volker Michel and Roger Telschow. The regularized orthogonal functional matching pursuit for ill-posed inverse problems. *SIAM Journal on Numerical Analysis*, 54(1):262–287, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MT18] **Mondaini:2018:UTE**
 Cecilia F. Mondaini and Edriss S. Titi. Uniform-in-time error estimates for the post-processing Galerkin method applied to a data assimilation algorithm. *SIAM Journal on Numerical Analysis*, 56(1):78–110, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MTKO17] **Mizuguchi:2017:MVC**
 Makoto Mizuguchi, Akitoshi Takayasu, Takayuki Kubo, and Shin'ichi Oishi. A method of verified computations for solutions to semilinear parabolic equations using semigroup theory. *SIAM Journal on Numerical Analysis*, 55(2):980–1001, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Mur14] **Murakawa:2014:EED**
 Hideki Murakawa. Error estimates for discrete-time approximations of nonlinear cross-diffusion systems. *SIAM Journal on Numerical Analysis*, 52(2):955–974, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MV14] **Mertens:2014:MRA**
 Clara Mertens and Raf Vandebril. Multiple recurrences and the associated matrix structures stemming from normal matrices. *SIAM Journal on Numerical Analysis*, 52(6):2977–2999, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MW12] **Melenk:2012:QOA**
 J. M. Melenk and B. Wohlmuth. Quasi-optimal approximation of surface based Lagrange multipliers in finite element methods. *SIAM Journal on Numerical Analysis*, 50(4):2064–2087, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [MW19] **Murphy:2019:CVA**
 Thomas J. Murphy and Noel J. Walkington. Control volume approximation of degenerate two-phase porous flows. *SIAM Journal on Numerical Analysis*,

- 57(2):527–546, ????. 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [MZ16]
- Xiang:2010:GHS**
- [mXqW10] Xin min Xiang and Zhong qing Wang. Generalized Hermite spectral method and its applications to problems in unbounded domains. *SIAM Journal on Numerical Analysis*, 48(4):1231–1253, ????. 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [NA15]
- Marica:2013:QFE**
- [MZ13] Aurora Marica and Enrique Zuazua. On the quadratic finite element approximation of one-dimensional waves: Propagation, observation, and control. *SIAM Journal on Numerical Analysis*, 50(5):2744–2777, ????. 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Ney13]
- Maset:2014:GBR**
- [MZ14] S. Maset and M. Zennaro. Good behavior with respect to the stiffness in the numerical integration of retarded functional differential equations. *SIAM Journal on Numerical Analysis*, 52(4):1843–1866, ????. 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- May:2016:CST**
- Georg May and Mohammad Zakerzadeh. On the convergence of space-time discontinuous Galerkin schemes for scalar conservation laws. *SIAM Journal on Numerical Analysis*, 54(4):2452–2465, ????. 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Nikazad:2015:PRI**
- T. Nikazad and M. Abbasi. Perturbation-resilient iterative methods with an infinite pool of mappings. *SIAM Journal on Numerical Analysis*, 53(1):390–404, ????. 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Neymeyr:2013:GCT**
- Klaus Neymeyr. A geometric convergence theory for the preconditioned steepest descent iteration. *SIAM Journal on Numerical Analysis*, 50(6):3188–3207, ????. 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Norton:2018:NAF**
- [NFM18] Richard A. Norton, Colin Fox, and Malcolm E. Morrison. Numerical approximation of the Frobenius–Perron operator using the finite volume method. *SIAM Journal on Numerical Analysis*, 56(1):570–589, ????. 2018. CODEN SJNAAM. ISSN

- 0036-1429 (print), 1095-7170 (electronic).
- [NHNY17] Son L. Nguyen, Tuan A. Hoang, Dung T. Nguyen, and George Yin. Milstein-type procedures for numerical solutions of stochastic differential equations with Markovian switching. *SIAM Journal on Numerical Analysis*, 55(2):953–979, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Nic17] David P. Nicholls. Numerical solution of diffraction problems: a high-order perturbation of surfaces and asymptotic waveform evaluation method. *SIAM Journal on Numerical Analysis*, 55(1):144–167, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NKK13] Mitsuhiro T. Nakao, Takuma Kimura, and Takehiko Kinoshita. Constructive a priori error estimates for a full discrete approximation of the heat equation. *SIAM Journal on Numerical Analysis*, 51(3):1525–1541, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Nor15] **Nordbotten:2015:CCC**
Jan Martin Nordbotten. Convergence of a cell-centered finite volume discretization for linear elasticity. *SIAM Journal on Numerical Analysis*, 53(6):2605–2625, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Nor16] **Nordbotten:2016:SCC**
Jan Martin Nordbotten. Stable cell-centered finite volume discretization for Biot equations. *SIAM Journal on Numerical Analysis*, 54(2):942–968, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NOS16] **Nochetto:2016:PAS**
Ricardo H. Nochetto, Enrique Otárola, and Abner J. Salgado. A PDE approach to space-time fractional parabolic problems. *SIAM Journal on Numerical Analysis*, 54(2):848–873, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Nov17] **Novati:2017:SPA**
Paolo Novati. Some properties of the Arnoldi-based methods for linear ill-posed problems. *SIAM Journal on Numerical Analysis*, 55(3):1437–1455, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Nguyen:2017:MTP**
- Nicholls:2017:NSD**
- Nakao:2013:CPE**

- [NP16] **Nguyen:2016:NDG**
 Dang-Manh Nguyen and Jörg Peters. Nonuniform discontinuous Galerkin filters via shift and scale. *SIAM Journal on Numerical Analysis*, 54(3):1401–1422, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NR12] **Natalini:2012:AHO**
 R. Natalini and M. Ribot. Asymptotic high order mass-preserving schemes for a hyperbolic model of chemotaxis. *SIAM Journal on Numerical Analysis*, 50(2):883–905, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NS10] **Norton:2010:CAP**
 Richard Norton and Robert Scheichl. Convergence analysis of planewave expansion methods for 2D Schrödinger operators with discontinuous periodic potentials. *SIAM Journal on Numerical Analysis*, 47(6):4356–4380, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NSS19] **Neuenkirch:2019:AEM**
 Andreas Neuenkirch, Michaela Szölgényi, and Lukasz Szpruch. An adaptive Euler–Maruyama scheme for stochastic differential equations with discontinuous drift and its convergence analysis. *SIAM Journal on Numerical Analysis*, 57(1):378–403, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NT16] **Noferini:2016:NIR**
 Vanni Noferini and Alex Townsend. Numerical instability of resultant methods for multidimensional rootfinding. *SIAM Journal on Numerical Analysis*, 54(2):719–743, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NV14] **Noble:2014:STD**
 Pascal Noble and Jean-Paul Vila. Stability theory for difference approximations of Euler–Korteweg equations and application to thin film flows. *SIAM Journal on Numerical Analysis*, 52(6):2770–2791, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NW19] **Nikolic:2019:PEE**
 Vanja Nikolić and Barbara Wohlmuth. A priori error estimates for the finite element approximation of Westervelt’s quasi-linear acoustic wave equation. *SIAM Journal on Numerical Analysis*, 57(4):1897–1918, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NWZ17] **Nochetto:2017:FEM**
 Ricardo H. Nochetto, Shawn W. Walker, and Wujun Zhang.

- A finite element method for nematic liquid crystals with variable degree of orientation. *SIAM Journal on Numerical Analysis*, 55(3):1357–1386, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [NZ12] Ahmed Naga and Zhimin Zhang. Function value recovery and its application in eigenvalue problems. *SIAM Journal on Numerical Analysis*, 50(1):272–286, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p272_s1.
- [NZ18] Michael Neilan and Wujun Zhang. Rates of convergence in W_p^2 -norm for the Monge–Ampère equation. *SIAM Journal on Numerical Analysis*, 56(5):3099–3120, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [nZzSwW11] Ya nan Zhang, Zhi zhong Sun, and Hong wei Wu. Error estimates of Crank–Nicolson-type difference schemes for the sub-diffusion equation. *SIAM Journal on Numerical Analysis*, 49(6):2302–2322, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2302_s1.
- [nZzSZ12] Ya nan Zhang, Zhi zhong Sun, and Xuan Zhao. Compact alternating direction implicit scheme for the two-dimensional fractional diffusion-wave equation. *SIAM Journal on Numerical Analysis*, 50(3):1535–1555, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [OBLS14] Derek Olson, Pavel B. Bochev, Mitchell Luskin, and Alexander V. Shapeev. An optimization-based atomistic-to-continuum coupling method. *SIAM Journal on Numerical Analysis*, 52(4):2183–2204, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Oh13] Duk-Soon Oh. An overlapping Schwarz algorithm for Raviart–Thomas vector fields with discontinuous coefficients. *SIAM Journal on Numerical Analysis*, 51(1):297–321, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [OHBNX15] Thanh Hai Ong, Thi Thao Phuong Hoang, Stéphane P. A. Bordas, and H. Nguyen-Xuan. A

Zhang:2012:CAD**Olson:2014:OBA****Oh:2013:OSA****Ong:2015:SCC**

- staggered cell-centered finite element method for compressible and nearly-incompressible linear elasticity on general meshes. *SIAM Journal on Numerical Analysis*, 53(4):2051–2073, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ORB16]
- [OP12] Christoph Ortner and Dirk Praetorius. On the convergence of adaptive nonconforming finite element methods for a class of convex variational problems. *SIAM Journal on Numerical Analysis*, 49(1):346–367, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Ortner:2012:CAN]
- [OPW19] Alexander Ostermann, Chiara Piazzola, and Hanna Walach. Convergence of a low-rank Lie–Trotter splitting for stiff matrix differential equations. *SIAM Journal on Numerical Analysis*, 57(4):1947–1966, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ORX14]
- [OR14] Maxim A. Olshanskii and Arnold Reusken. Error analysis of a space–time finite element method for solving PDEs on evolving surfaces. *SIAM Journal on Numerical Analysis*, 52(4):2092–2120, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Olshanskii:2014:EAS]
- [OS13] Alexander Ostermann and Katharina Schratz. Stability of exponential operator splitting methods for noncontractive semigroups. *SIAM Journal on Numerical Analysis*, 51(4):2092–2120, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Ostermann:2013:SEO]
- Ricardo Oyarzúa and Ricardo Ruiz-Baier. Locking-free finite element methods for poroelasticity. *SIAM Journal on Numerical Analysis*, 54(5):2951–2973, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Oyarzua:2016:LFF]
- Ivan V. Oseledets, Maxim V. Rakhuba, and André Uschmajew. Alternating least squares as moving subspace correction. *SIAM Journal on Numerical Analysis*, 56(6):3459–3479, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Oseledets:2018:ALS]
- Maxim A. Olshanskii, Arnold Reusken, and Xianmin Xu. An Eulerian space–time finite element method for diffusion problems on evolving surfaces. *SIAM Journal on Numerical Analysis*, 52(3):1354–1377, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Olshanskii:2014:EST]

- (1):191–203, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [OS16] Enrique Otárola and Abner J. Salgado. Finite element approximation of the parabolic fractional obstacle problem. *SIAM Journal on Numerical Analysis*, 54(4):2619–2639, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [OTB18] Oyekola Oyekole, Catalin Trenchea, and Martina Bukac. A second-order in time approximation of fluid-structure interaction problem. *SIAM Journal on Numerical Analysis*, 56(1):590–613, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ovt11] E. E. Ovtchinnikov. Lehmann bounds and eigenvalue error estimation. *SIAM Journal on Numerical Analysis*, 49(5):2078–2102, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2078_s1.
- [Owe19] Art Owen. Effective dimension of some weighted pre-Sobolev spaces with dominating mixed partial derivatives. *SIAM Journal on Numerical Analysis*, 57(2):547–562, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [OZ13] C. Ortner and L. Zhang. Construction and sharp consistency estimates for atomistic/continuum coupling methods with general interfaces: a two-dimensional model problem. *SIAM Journal on Numerical Analysis*, 50(6):2940–2965, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PBL15] Gaël Poëtte, Alexandre Birolleau, and Didier Lucor. Iterative polynomial approximation adapting to arbitrary probability distribution. *SIAM Journal on Numerical Analysis*, 53(3):1559–1584, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PC16] Martin Campos Pinto and Frédérique Charles. Uniform convergence of a linearly transformed particle method for the Vlasov–Poisson system. *SIAM Journal on Numerical Analysis*, 54(1):137–160, 2016. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [Peñ07] **Pena:2007:SDD**
 J. M. Peña. Strict diagonal dominance and optimal bounds for the Skeel condition number. *SIAM Journal on Numerical Analysis*, 45(3):1107–1108, 2007. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See correction [Xia10].
- [Pet10] **Petkovic:2010:GCM**
 Miodrag S. Petković. On a general class of multipoint root-finding methods of high computational efficiency. *SIAM Journal on Numerical Analysis*, 47(6):4402–4414, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See remarks [Pet11].
- [Pet11] **Petkovic:2011:RGC**
 Miodrag S. Petković. Remarks on “On a General Class of Multipoint Root-Finding Methods of High Computational Efficiency”. *SIAM Journal on Numerical Analysis*, 49(3):1317–1319, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1317_s1. See [Pet10].
- [PF13] **Peet:2013:SAI**
 Yulia T. Peet and Paul F. Fischer. Stability analysis of interface temporal discretization in grid overlapping methods. *SIAM Journal on Numerical Analysis*, 50(6):3375–3401, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PGvD12] **Pachon:2012:FSR**
 Ricardo Pachón, Pedro Gonnet, and Joris van Deun. Fast and stable rational interpolation in roots of unity and Chebyshev points. *SIAM Journal on Numerical Analysis*, 50(3):1713–1734, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PH16] **Pflaum:2016:SGD**
 Christoph Pflaum and Rainer Hartmann. A sparse grid discretization of the Helmholtz equation with variable coefficients in high dimensions. *SIAM Journal on Numerical Analysis*, 54(4):2707–2727, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PKK⁺15] **Piao:2015:IFB**
 Xiangfan Piao, SangDong Kim, Philsu Kim, Jae-Min Kwon, and Dokkyun Yi. An iteration free backward semi-Lagrangian scheme for guiding center problems. *SIAM Journal on Numerical Analysis*, 53(1):619–643, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [PL10] **Pao:2010:BMI**
C. V. Pao and Xin Lu. Block monotone iterative method for semilinear parabolic equations with nonlinear boundary conditions. *SIAM Journal on Numerical Analysis*, 47(6):4581–4606, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Pl17] **Plato:2017:CRS**
Robert Plato. Converse results, saturation and quasi-optimality for Lavrentiev regularization of accretive problems. *SIAM Journal on Numerical Analysis*, 55(3):1315–1329, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Plo19] **Plociniczak:2019:NMT**
Lukasz Plociniczak. Numerical method for the time-fractional porous medium equation. *SIAM Journal on Numerical Analysis*, 57(2):638–656, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [PLR11] **Perez-Llanos:2011:NAN**
Mayte Pérez-Llanos and Julio D. Rossi. Numerical approximations for a nonlocal evolution equation. *SIAM Journal on Numerical Analysis*, 49(5):2103–2123, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2103_s1.
- [PM14] **Peng:2014:OML**
Liqian Peng and Kamran Mohseni. An online manifold learning approach for model reduction of dynamical systems. *SIAM Journal on Numerical Analysis*, 52(4):1928–1952, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Poe19] **Poetzsche:2019:NDI**
Christian Poetzsche. Numerical dynamics of integrodifference equations: Global attractivity in a C^0 -setting. *SIAM Journal on Numerical Analysis*, 57(5):2121–2141, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Pot16] **Potschka:2016:BSC**
Andreas Potschka. Backward step control for global Newton-type methods. *SIAM Journal on Numerical Analysis*, 54(1):361–387, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Pot17] **Potra:2017:SVN**
Florian A. Potra. A superquadratic variant of Newton’s method. *SIAM Journal on Numerical Analysis*, 55(6):2863–2884, 2017. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- Pranic:2014:RGQ**
- [PR14] Miroslav S. Pranić and Lothar Reichel. Rational Gauss quadrature. *SIAM Journal on Numerical Analysis*, 52(2):832–851, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Pollock:2019:AAc**
- [PRX19] Sara Pollock, Leo G. Rebholz, and Mengying Xiao. Anderson-accelerated convergence of Picard iterations for incompressible Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 57(2):615–637, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Piggott:2016:GEM**
- [PS16] M. J. Piggott and V. Solo. Geometric Euler–Maruyama schemes for stochastic differential equations in $SO(n)$ and $SE(n)$. *SIAM Journal on Numerical Analysis*, 54(4):2490–2516, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Paganini:2019:WNB**
- [PS19] Alberto Paganini and Kevin Sturm. Weakly normal basis vector fields in RKHS with an application to shape Newton methods. *SIAM Journal on Numerical Analysis*, 57(1):1–26, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Pereverzyev:2015:PCS**
- [PST15] S. V. Pereverzyev, I. H. Sloan, and P. Tkachenko. Parameter choice strategies for least-squares approximation of noisy smooth functions on the sphere. *SIAM Journal on Numerical Analysis*, 53(2):820–835, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Parisot:2016:CPR**
- [PV16] Martin Parisot and Jean-Paul Vila. Centered-potential regularization for the advection upstream splitting method. *SIAM Journal on Numerical Analysis*, 54(5):3083–3104, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Pencheva:2013:RPE**
- [PVWW13] Gergina V. Pencheva, Martin Vohralík, Mary F. Wheeler, and Tim Wildey. Robust a posteriori error control and adaptivity for multiscale, multinumerics, and mortar coupling. *SIAM Journal on Numerical Analysis*, 51(1):526–554, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Pages:2012:ISV**
- [PW12] Gilles Pagès and Benedikt Wilbertz. Intrinsic stationarity for vector quantization: Foundation of dual quantization. *SIAM Journal on Numerical Analysis*, 50(2):747–780, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Patterson:2014:CSE**
- [PW14] Robert I. A. Patterson and Wolfgang Wagner. Cell size error in stochastic particle methods for coagulation equations with advection. *SIAM Journal on Numerical Analysis*, 52(1):424–442, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Pfefferer:2019:FEE**
- [PW19] Johannes Pfefferer and Max Winkler. Finite element error estimates for normal derivatives on boundary concentrated meshes. *SIAM Journal on Numerical Analysis*, 57(5):2043–2073, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Plaskota:2013:AAW**
- [PWZ13] Leszek Plaskota, Grzegorz W. Wasilkowski, and Yaxi Zhao. An adaptive algorithm for weighted approximation of singular functions over \mathbf{R} . *SIAM Journal on Numerical Analysis*, 51(3):1470–1493, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Qiu:2011:MHF**
- [QD11] Weifeng Qiu and Leszek Demkowicz. Mixed hp-finite element method for linear elasticity with weakly imposed symmetry: Stability analysis. *SIAM Journal on Numerical Analysis*, 49(2):619–641, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p619_s1.
- Qiao:2015:EAM**
- [QTX15] Zhonghua Qiao, Tao Tang, and Hehu Xie. Error analysis of a mixed finite element method for the molecular beam epitaxy model. *SIAM Journal on Numerical Analysis*, 53(1):184–205, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Qadeer:2019:CDN**
- [QW19] Saad Qadeer and Jon A. Wilkening. Computing the Dirichlet–Neumann operator on a cylinder. *SIAM Journal on Numerical Analysis*, 57(3):1183–1204, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [RÁM⁺17] **Rebollo:2017:CSR** Tomás Chacón Rebollo, Enrique Delgado Ávila, Macarena Gómez Mármol, Francesco Ballarin, and Gianluigi Rozza. On a certified Smagorinsky reduced basis turbulence model. *SIAM Journal on Numerical Analysis*, 55(6):3047–3067, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ran13] **Rand:2013:AIU** Alexander Rand. Average interpolation under the maximum angle condition. *SIAM Journal on Numerical Analysis*, 50(5):2538–2559, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Rat16] **Rathinam:2016:CMT** Muruhan Rathinam. Convergence of moments of tau leaping schemes for unbounded Markov processes on integer lattices. *SIAM Journal on Numerical Analysis*, 54(1):415–439, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [RBGS17] **Rodriguez:2017:ECC** Ana Alonso Rodríguez, Enrico Bertolazzi, Riccardo Ghiloni, and Ruben Specogna. Efficient construction of 2-chains with a prescribed boundary. *SIAM Journal on Numerical Analysis*, 55(3):1159–1187, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [RBGV13] **Rodriguez:2013:CFE** Ana Alonso Rodríguez, Enrico Bertolazzi, Riccardo Ghiloni, and Alberto Valli. Construction of a finite element basis of the first de Rham cohomology group and numerical solution of 3D magnetostatic problems. *SIAM Journal on Numerical Analysis*, 51(4):2380–2402, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [RD17] **Rosenfeld:2017:ACF** Joel A. Rosenfeld and Warren E. Dixon. Approximating the Caputo fractional derivative through the Mittag-Leffler reproducing kernel Hilbert space and the kernelized Adams–Bashforth–Moulton method. *SIAM Journal on Numerical Analysis*, 55(3):1201–1217, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ren15] **Renac:2015:SDS** Florent Renac. Stationary discrete shock profiles for scalar conservation laws with a discontinuous Galerkin method. *SIAM Journal on Numerical Analysis*, 53(4):1690–1715, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Renac:2016:SAD

[Ren16] Florent Renac. Stability analysis of discontinuous Galerkin discrete shock profiles for steady scalar conservation laws. *SIAM Journal on Numerical Analysis*, 54(1):187–209, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Reusken:2013:FEL

[Reu13] Arnold Reusken. A finite element level set redistancing method based on gradient recovery. *SIAM Journal on Numerical Analysis*, 51(5):2723–2745, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rachh:2016:IEM

[RG16] Manas Rachh and L. Green-gard. Integral equation methods for elastance and mobility problems in two dimensions. *SIAM Journal on Numerical Analysis*, 54(5):2889–2909, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rebollo:2016:ACF

[RGMP16] T. Chacón Rebollo, V. Girault, F. Murat, and O. Pironneau. Analysis of a coupled fluid-structure model with applications to hemodynamics. *SIAM Journal on Numerical Analysis*, 54(2):994–1019, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Ridder:2016:CFD

[Rid16] Johanna Ridder. Convergence of a finite difference scheme for two-dimensional incompressible magnetohydrodynamics. *SIAM Journal on Numerical Analysis*, 54(6):3550–3576, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rieger:2014:SIE

[Rie14] Janosch Rieger. Semi-implicit Euler schemes for ordinary differential inclusions. *SIAM Journal on Numerical Analysis*, 52(2):895–914, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rangarajan:2013:AMP

[RL13] Ramsharan Rangarajan and Adrian J. Lew. Analysis of a method to parameterize planar curves immersed in triangulations. *SIAM Journal on Numerical Analysis*, 51(3):1392–1420, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rui:2015:TGB

[RL15] Hongxing Rui and Wei Liu. A two-grid block-centered finite difference method for Darcy–Forchheimer flow in porous media. *SIAM Journal on Numerical Analysis*, 53(4):1941–1962, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Rui:2017:SSM**
- [RL17] Hongxing Rui and Xiaoli Li. Stability and superconvergence of MAC scheme for Stokes equations on nonuniform grids. *SIAM Journal on Numerical Analysis*, 55(3):1135–1158, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ramaciotti:2017:ASB**
- [RN17] Pedro Ramaciotti and Jean-Claude Nédélec. About some boundary integral operators on the unit disk related to the Laplace equation. *SIAM Journal on Numerical Analysis*, 55(4):1892–1914, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Rosales:2017:USM**
- [RSSZ17] Rodolfo R. Rosales, Benjamin Seibold, David Shirokoff, and Dong Zhou. Unconditional stability for multistep ImEx schemes: Theory. *SIAM Journal on Numerical Analysis*, 55(5):2336–2360, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Rössler:2010:RKM**
- [Röß10] Andreas Rößler. Runge–Kutta methods for the strong approximation of solutions of stochastic differential equations. *SIAM Journal on Numerical Analysis*, 48(3):922–952, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Rui:2013:BCF**
- [RP13] Hongxing Rui and Hao Pan. A block-centered finite difference method for the Darcy–Forchheimer model. *SIAM Journal on Numerical Analysis*, 50(5):2612–2631, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Reisinger:2017:PFT**
- [RSW17] Christoph Reisinger, Endre Süli, and Alan Whitley. A partial Fourier transform method for a class of hypoelliptic Kolmogorov equations. *SIAM Journal on Numerical Analysis*, 55(4):1867–1891, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Russo:2012:CSL**
- [RSY12] Giovanni Russo, Pietro Santagati, and Seok-Bae Yun. Convergence of a semi-Lagrangian scheme for the BGK model of the Boltzmann equation. *SIAM Journal on Numerical Analysis*, 50(3):1111–1135, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Rey:2016:ERV**
- [RT16] Thomas Rey and Changhui Tan. An exact rescaling velocity method for some kinetic

- flocking models. *SIAM Journal on Numerical Analysis*, 54(2):641–664, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [RW17a]
- Rohwedder:2013:LCA**
- [RU13] Thorsten Rohwedder and André Uschmajew. On local convergence of alternating schemes for optimization of convex problems in the tensor train format. *SIAM Journal on Numerical Analysis*, 51(2):1134–1162, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [RW17b]
- Riviere:2011:CDG**
- [RW11] Beatrice M. Rivière and Noel J. Walkington. Convergence of a discontinuous Galerkin method for the miscible displacement equation under low regularity. *SIAM Journal on Numerical Analysis*, 49(3):1085–1110, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1085_s1.
- Rjasanow:2013:HOB**
- [RW13] Sergej Rjasanow and Stefan Weißer. Higher order BEM-based FEM on polygonal meshes. *SIAM Journal on Numerical Analysis*, 50(5):2357–2378, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [RW17a]
- Rhebergen:2017:AHJ**
- Sander Rhebergen and Garth N. Wells. Analysis of a hybridized/interface stabilized finite element method for the Stokes equations. *SIAM Journal on Numerical Analysis*, 55(4):1982–2003, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Rosch:2017:MLO**
- [RW17b] Arnd Rösch and Gerd Wachsmuth. Mass lumping for the optimal control of elliptic partial differential equations. *SIAM Journal on Numerical Analysis*, 55(3):1412–1436, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ray:2013:HON**
- [RWJG13] Navamita Ray, Duo Wang, Xiangmin Jiao, and James Glimm. High-order numerical integration over discrete surfaces. *SIAM Journal on Numerical Analysis*, 50(6):3061–3083, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Russo:2018:CSL**
- [RY18] Giovanni Russo and Seok-Bae Yun. Convergence of a semi-Lagrangian scheme for the ellipsoidal BGK model of the Boltzmann equation. *SIAM Jour-*

nal on Numerical Analysis, 56 (6):3580–3610, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Rafetseder:2018:DRK

[RZ18] Katharina Rafetseder and Walter Zulehner. A decomposition result for Kirchhoff plate bending problems and a new discretization approach. *SIAM Journal on Numerical Analysis*, 56(3):1961–1986, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Reisinger:2019:PSM

[RZ19] Christoph Reisinger and Yufei Zhang. A penalty scheme for monotone systems with interconnected obstacles: Convergence and error estimates. *SIAM Journal on Numerical Analysis*, 57(4):1625–1648, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sandu:2019:CMI

[San19] Adrian Sandu. A class of multi-rate infinitesimal GARK methods. *SIAM Journal on Numerical Analysis*, 57(5):2300–2327, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sauter:2010:FEE

[Sau10] S. Sauter. *hp*-finite elements for elliptic eigenvalue problems:

Error estimates which are explicit with respect to λ , h , and p . *SIAM Journal on Numerical Analysis*, 48(1):95–108, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Schroder:2011:MFE

[Sch11] Andreas Schröder. Mixed finite element methods of higher-order for model contact problems. *SIAM Journal on Numerical Analysis*, 49(6):2323–2339, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i6/p2323_s1.

Schedensack:2016:NDL

[Sch16] M. Schedensack. A new discretization for m th-Laplace equations with arbitrary polynomial degrees. *SIAM Journal on Numerical Analysis*, 54(4):2138–2162, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Svard:2018:ESN

[SCP18] Magnus Svärd, Mark H. Carpenter, and Matteo Parsani. Entropy stability and the no-slip wall boundary condition. *SIAM Journal on Numerical Analysis*, 56(1):256–273, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [SD19] **Soane:2019:MPN**
 Ana Maria Soane and Andrei Draganescu. Multigrid preconditioners for the Newton–Krylov method in the optimal control of the stationary Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 57(3):1494–1523, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SDG16] **Song:2016:HDI**
 Guohui Song, Jacqueline Davis, and Anne Gelb. A high-dimensional inverse frame operator approximation technique. *SIAM Journal on Numerical Analysis*, 54(4):2282–2301, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SDKS13] **Settle:2013:DHO**
 Sean O. Settle, Craig C. Douglas, Imbunm Kim, and Dongwoo Sheen. On the derivation of highest-order compact finite difference schemes for the one- and two-dimensional Poisson equation with Dirichlet boundary conditions. *SIAM Journal on Numerical Analysis*, 51(4):2470–2490, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SDM18a] **Sun:2018:ACS**
 Qi Sun, Qiang Du, and Ju Ming. Asymptotically compatible schemes for stochastic homogenization. *SIAM Journal on Numerical Analysis*, 56(3):1942–1960, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SDM18b] **Sun:2018:EAC**
 Qi Sun, Qiang Du, and Ju Ming. Erratum: Asymptotically compatible schemes for stochastic homogenization. *SIAM Journal on Numerical Analysis*, 56(4):2698–2699, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Seg10] **Segura:2010:RCZ**
 Javier Segura. Reliable computation of the zeros of solutions of second order linear ODEs using a fourth order method. *SIAM Journal on Numerical Analysis*, 48(2):452–469, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Sel10] **Sellami:2010:QBF**
 Afef Sellami. Quantization based filtering method using first order approximation. *SIAM Journal on Numerical Analysis*, 47(6):4711–4734, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SG15] **Sandu:2015:GSA**
 Adrian Sandu and Michael Günther. A generalized-

- structure approach to additive Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 53(1):17–42, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [SL15]
- [SGMS13] Raymond L. Speth, William H. Green, Shev MacNamara, and Gilbert Strang. Balanced splitting and rebalanced splitting. *SIAM Journal on Numerical Analysis*, 51(6):3084–3105, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Speth:2013:BSR**
- [Sin14] John R. Singler. New POD error expressions, error bounds, and asymptotic results for reduced order models of parabolic PDEs. *SIAM Journal on Numerical Analysis*, 52(2):852–876, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Singler:2014:NPE**
- [SK13] Bernhard A. Schmitt and Ekaterina Kostina. Peer two-step methods with embedded sensitivity approximation for parameter-dependent ODEs. *SIAM Journal on Numerical Analysis*, 50(5):2182–2207, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Schmitt:2013:PTS**
- [SLSF15] S. Sato, T. Matsuo, H. Suzuki, and D. Furihata. A Lyapunov-type theorem for dissipative numerical integrators with adaptive time-stepping. *SIAM Journal on Numerical Analysis*, 53(6):2505–2518, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Sato:2015:LTT**
- [SLSM13] Jochen Schütz, Sebastian Noelle, Christina Steiner, and Georg May. A note on adjoint error estimation for one-dimensional stationary balance laws with Error analysis of a dual-parametric bi-quadratic FEM in cavitation computation in elasticity. *SIAM Journal on Numerical Analysis*, 53(3):1629–1649, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Su:2015:EAD**
- [SLSM16] WeiPing Shen, Chong Li, and Jen-Chih Yao. Convergence analysis of Newton-like methods for inverse eigenvalue problems with multiple eigenvalues. *SIAM Journal on Numerical Analysis*, 54(5):2938–2950, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). **Shen:2016:CAN**

- shocks. *SIAM Journal on Numerical Analysis*, 51(1):126–136, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Stynes:2017:EAF**
- [SOG17] Martin Stynes, Eugene O’Riordan, and José Luis Gracia. Error analysis of a finite difference method on graded meshes for a time-fractional diffusion equation. *SIAM Journal on Numerical Analysis*, 55(2):1057–1079, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Solem:2018:CRF**
- [Sol18] Susanne Solem. Convergence rates of the front tracking method for conservation laws in the Wasserstein distances. *SIAM Journal on Numerical Analysis*, 56(6):3648–3666, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Spalevic:2014:EBE**
- [Spa14] Miodrag M. Spalević. Error bounds and estimates for Gauss–Turán quadrature formulae of analytic functions. *SIAM Journal on Numerical Analysis*, 52(1):443–467, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Schwab:2018:GLS**
- [SPH18] Johannes Schwab, Sergiy Pereverzyev, Jr., and Markus Haltmeier. A Galerkin least squares approach for photoacoustic tomography. *SIAM Journal on Numerical Analysis*, 56(1):160–184, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Saad:2013:SFI**
- [SS13a] Bilal Saad and Mazen Saad. Study of full implicit petroleum engineering finite-volume scheme for compressible two-phase flow in porous media. *SIAM Journal on Numerical Analysis*, 51(1):716–741, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Smears:2013:DGF**
- [SS13b] Iain Smears and Endre Süli. Discontinuous Galerkin finite element approximation of non-divergence form elliptic equations with Cordès coefficients. *SIAM Journal on Numerical Analysis*, 51(4):2088–2106, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Smears:2014:DGF**
- [SS14] Iain Smears and Endre Süli. Discontinuous Galerkin finite element approximation of Hamilton–Jacobi–Bellman equations with Cordes coefficients. *SIAM Journal on Numerical Analysis*, 52(2):993–1016, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [SS17a] **Schillings:2017:AEK**
 Claudia Schillings and Andrew M. Stuart. Analysis of the ensemble Kalman filter for inverse problems. *SIAM Journal on Numerical Analysis*, 55(3):1264–1290, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SS17b] **Schlichting:2017:CRU**
 André Schlichting and Christian Seis. Convergence rates for upwind schemes with rough coefficients. *SIAM Journal on Numerical Analysis*, 55(2):812–840, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SSS11] **Starke:2011:AMF**
 Gerhard Starke, Alexander Schwarz, and Jörg Schröder. Analysis of a modified first-order system least squares method for linear elasticity with improved momentum balance. *SIAM Journal on Numerical Analysis*, 49(3):1006–1022, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p1006_s1.
- [SSW13a] **Schotzau:2013:DSOa**
 D. Schötzau, Ch. Schwab, and T. P. Wihler. *hp*-dGFEM for second-order elliptic problems in polyhedra I: Stability on geometric meshes. *SIAM Journal on Numerical Analysis*, 51(3):1610–1633, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SSW13b] **Schotzau:2013:DSOb**
 D. Schötzau, Ch. Schwab, and T. P. Wihler. *hp*-DGFEM for second order elliptic problems in polyhedra II: Exponential convergence. *SIAM Journal on Numerical Analysis*, 51(4):2005–2035, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SSZ11] **Schoberl:2011:RMM**
 Joachim Schöberl, René Simon, and Walter Zulehner. A robust multigrid method for elliptic optimal control problems. *SIAM Journal on Numerical Analysis*, 49(4):1482–1503, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1482_s1.
- [Ste11] **Steinbach:2011:NSO**
 O. Steinbach. A note on the stable one-equation coupling of finite and boundary elements. *SIAM Journal on Numerical Analysis*, 49(4):1521–1531, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1521_s1.

siam.org/sinum/resource/1/sjnaam/v49/i4/p1521_s1.

Stephansen:2013:CMF

- [Ste13] Annette F. Stephansen. Convergence of the multipoint flux approximation L -method on general grids. *SIAM Journal on Numerical Analysis*, 50(6):3163–3187, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Steinbach:2012:CAG

- [SU12] O. Steinbach and G. Unger. Convergence analysis of a Galerkin boundary element method for the Dirichlet Laplacian eigenvalue problem. *SIAM Journal on Numerical Analysis*, 50(2):710–728, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sun:2011:IMT

- [Sun11] Jiguang Sun. Iterative methods for transmission eigenvalues. *SIAM Journal on Numerical Analysis*, 49(5):1860–1874, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1860_s1.

Samaey:2010:AEO

- [SV10] Giovanni Samaey and Wim Vanroose. An analysis of equivalent operator preconditioning for equation-free Newton–

Krylov methods. *SIAM Journal on Numerical Analysis*, 48(2):633–658, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sebestova:2014:TSB

- [SV14] Ivana Sebestová and Tomáš Vejchodský. Two-sided bounds for eigenvalues of differential operators with applications to Friedrichs, Poincaré, trace, and similar constants. *SIAM Journal on Numerical Analysis*, 52(1):308–329, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Stenberg:2015:EAS

- [SV15] Rolf Stenberg and Juha Videman. On the error analysis of stabilized finite element methods for the Stokes problem. *SIAM Journal on Numerical Analysis*, 53(6):2626–2633, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Svard:2016:CNS

- [Svä16] Magnus Svärd. A convergent numerical scheme for the compressible Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 54(3):1484–1506, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [SVD14] **Sorber:2014:NSB**
 Laurent Sorber, Marc Van Barel, and Lieven De Lathauwer. Numerical solution of bivariate and polyanalytic polynomial systems. *SIAM Journal on Numerical Analysis*, 52(4):1551–1572, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SVZ12] Robert Scheichl, Panayot S. Vassilevski, and Ludmil T. Zikatanov. Multilevel methods for elliptic problems with highly varying coefficients on nonaligned coarse grids. *SIAM Journal on Numerical Analysis*, 50(3):1675–1694, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SW10] **Shen:2010:SSA**
 Jie Shen and Li-Lian Wang. Sparse spectral approximations of high-dimensional problems based on hyperbolic cross. *SIAM Journal on Numerical Analysis*, 48(3):1087–1109, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SW12] **Schrader:2012:EEA**
 Daniela Schröder and Holger Wendland. An extended error analysis for a meshfree discretization method of Darcy’s problem. *SIAM Journal on Numerical Analysis*, 50(2):838–857, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SW16] **Schneider:2016:PEE**
 René Schneider and Gerd Wachsmuth. A posteriori error estimation for control-constrained, linear-quadratic optimal control problems. *SIAM Journal on Numerical Analysis*, 54(2):1169–1192, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SW19] **Schmutz:2019:VOD**
 Lars Schmutz and Thomas P. Wihler. The variable-order discontinuous Galerkin time stepping scheme for parabolic evolution problems is uniformly L^∞ -stable. *SIAM Journal on Numerical Analysis*, 57(1):293–319, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [SWG14] **Sheng:2014:MLG**
 Chang-Tao Sheng, Zhong-Qing Wang, and Ben-Yu Guo. A multistep Legendre–Gauss spectral collocation method for nonlinear Volterra integral equations. *SIAM Journal on Numerical Analysis*, 52(4):1953–1980, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sun:2019:SSE

- [SwS19] Zheng Sun and Chi wang Shu. Strong stability of explicit Runge–Kutta time discretizations. *SIAM Journal on Numerical Analysis*, 57(3):1158–1182, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Shen:2012:SOC

- [SWWW12] Jie Shen, Cheng Wang, Xiaoming Wang, and Steven M. Wise. Second-order convex splitting schemes for gradient flows with Ehrlich–Schwoebel type energy: Application to thin film epitaxy. *SIAM Journal on Numerical Analysis*, 50(1):105–125, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p105_s1.

Shen:2018:CEA

- [SX18] Jie Shen and Jie Xu. Convergence and error analysis for the Scalar Auxiliary Variable (SAV) schemes to gradient flows. *SIAM Journal on Numerical Analysis*, 56(5):2895–2912, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Shen:2012:AFP

- [SY12] Jie Shen and Haijun Yu. On the approximation of the

Fokker–Planck equation of the finitely extensible nonlinear elastic dumbbell model I: a new weighted formulation and an optimal spectral-Galerkin algorithm in two dimensions. *SIAM Journal on Numerical Analysis*, 50(3):1136–1161, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Shen:2015:DES

- [SY15] Jie Shen and Xiaofeng Yang. Decoupled, energy stable schemes for phase-field models of two-phase incompressible flows. *SIAM Journal on Numerical Analysis*, 53(1):279–296, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Song:2019:IUA

- [SYY19] Yongcun Song, Xiaoming Yuan, and Hangrui Yue. An inexact Uzawa algorithmic framework for nonlinear saddle point problems with applications to elliptic optimal control problem. *SIAM Journal on Numerical Analysis*, 57(6):2656–2684, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Shan:2013:PTS

- [SZ13] Li Shan and Haibiao Zheng. Partitioned time stepping method for fully evolutionary Stokes–Darcy flow with Beavers–Joseph interface conditions. *SIAM Journal on Nu-*

- merical Analysis*, 51(2):813–839, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Sauter:2015:PEE**
- [SZ15] S. Sauter and J. Zech. A posteriori error estimation of *hp*-*dG* finite element methods for highly indefinite Helmholtz problems. *SIAM Journal on Numerical Analysis*, 53(5):2414–2440, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Sun:2018:ETS**
- [SZZ18] Yabing Sun, Weidong Zhao, and Tao Zhou. Explicit theta-schemes for mean-field backward stochastic differential equations. *SIAM Journal on Numerical Analysis*, 56(4):2672–2697, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Takhirov:2013:SBL**
- [Tak13] Aziz Takhirov. Stokes–Brinkman Lagrange multiplier/fictitious domain method for flows in pebble bed geometries. *SIAM Journal on Numerical Analysis*, 51(5):2874–2886, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Takacs:2015:RMM**
- [Tak15] Stefan Takacs. A robust multi-grid method for the time-dependent Stokes problem. *SIAM Journal on Numerical Analysis*, 53(6):2634–2654, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Tian:2013:ACD**
- [TD13] Xiaochuan Tian and Qian Du. Analysis and comparison of different approximations to nonlocal diffusion and linear peridynamic equations. *SIAM Journal on Numerical Analysis*, 51(6):3458–3482, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Tian:2014:ACS**
- [TD14] Xiaochuan Tian and Qiang Du. Asymptotically compatible schemes and applications to robust discretization of nonlocal models. *SIAM Journal on Numerical Analysis*, 52(4):1641–1665, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Tian:2015:NDG**
- [TD15] Xiaochuan Tian and Qiang Du. Nonconforming discontinuous Galerkin methods for nonlocal variational problems. *SIAM Journal on Numerical Analysis*, 53(2):762–781, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Tha13] **Thalhammer:2013:CAH** Mechthild Thalhammer. Convergence analysis of high-order time-splitting pseudospectral methods for nonlinear Schrödinger equations. *SIAM Journal on Numerical Analysis*, 50(6):3231–3258, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TT10]
- [TK15] **Toth:2015:CAA** Alex Toth and C. T. Kelley. Convergence analysis for Anderson acceleration. *SIAM Journal on Numerical Analysis*, 53(2):805–819, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TT15]
- [TL15] **Tu:2015:FDT** Xuemin Tu and Jing Li. A FETI-DP type domain decomposition algorithm for three-dimensional incompressible Stokes equations. *SIAM Journal on Numerical Analysis*, 53(2):720–742, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TV16]
- [Tow15] **Townsend:2015:FAB** Alex Townsend. A fast analysis-based discrete Hankel transform using asymptotic expansions. *SIAM Journal on Numerical Analysis*, 53(4):1897–1917, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TW17]
- Trashorras:2010:MBM** José Trashorras and Dimitrios K. Tsagkarogiannis. From mesoscale back to microscale: Reconstruction schemes for coarse-grained stochastic lattice systems. *SIAM Journal on Numerical Analysis*, 48(5):1647–1677, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Tanaka:2015:DDE** Ken’ichiro Tanaka and Alexis Akira Toda. Discretizing distributions with exact moments: Error estimate and convergence analysis. *SIAM Journal on Numerical Analysis*, 53(5):2158–2177, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Tantardini:2016:PQO** Francesca Tantardini and Andreas Veerer. The L^2 -projection and quasi-optimality of Galerkin methods for parabolic equations. *SIAM Journal on Numerical Analysis*, 54(1):317–340, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Temam:2017:NAV** Roger Temam and Xiaoyan Wang. Numerical approximation of a variational inequality related to the humid atmosphere. *SIAM Journal on Numerical Analysis*, 55(1):217–239, 2017. CODEN

- SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TYK14]
- [TW18] Konstantina Trivisa and Franziska Weber. Analysis and simulations on a model for the evolution of tumors under the influence of nutrient and drug application. *SIAM Journal on Numerical Analysis*, 56(1):542–569, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TZ13a]
- [TX19] Qi Tao and Yan Xu. Superconvergence of arbitrary Lagrangian–Eulerian discontinuous Galerkin methods for linear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 57(5):2142–2165, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [TZ13b]
- [TYK11] Hongjiong Tian, Quanhong Yu, and Jiaoxun Kuang. Asymptotic stability of linear neutral delay differential-algebraic equations and linear multi-step methods. *SIAM Journal on Numerical Analysis*, 49(2):608–618, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p608_s1.
- [Tian:2014:ASL] Hongjiong Tian, Quanhong Yu, and Jiaoxun Kuang. Asymptotic stability of linear neutral delay differential-algebraic equations and Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 52(1):68–82, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Takacs:2013:CAA] Stefan Takacs and Walter Zulehner. Convergence analysis of all-at-once multigrid methods for elliptic control problems under partial elliptic regularity. *SIAM Journal on Numerical Analysis*, 51(3):1853–1874, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Tretyakov:2013:FMS] M. V. Tretyakov and Z. Zhang. A fundamental mean-square convergence theorem for SDEs with locally Lipschitz coefficients and its applications. *SIAM Journal on Numerical Analysis*, 51(6):3135–3162, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Ullrich:2017:MCM] Mario Ullrich. A Monte Carlo method for integration of multivariate smooth functions. *SIAM Journal on Numerical Analysis*, 55(3):1188–1200, 2017. CODEN

- SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Urschel:2017:CUC**
- [Urs17] John C. Urschel. On the characterization and uniqueness of centroidal Voronoi tessellations. *SIAM Journal on Numerical Analysis*, 55(3):1525–1547, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [VL11]
- Ullrich:2016:RFC**
- [UU16] Mario Ullrich and Tino Ullrich. The role of Frolov’s curvature formula for functions with bounded mixed derivative. *SIAM Journal on Numerical Analysis*, 54(2):969–993, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [VV14]
- Verwer:2012:CMM**
- [Ver12] J. G. Verwer. Composition methods, Maxwell’s equations, and source terms. *SIAM Journal on Numerical Analysis*, 50(2):439–457, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i2/p439_s1. [VZ18a]
- Vartziotis:2014:EMO**
- [VH14] Dimitris Vartziotis and Benjamin Himpel. Efficient mesh optimization using the gradient flow of the mean volume. *SIAM Journal on Numerical Analysis*, 52(2):1050–1075, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [VZ18b]
- VanKoten:2011:AEB**
- Brian Van Koten and Mitchell Luskin. Analysis of energy-based blended quasi-continuum approximations. *SIAM Journal on Numerical Analysis*, 49(5):2182–2209, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p2182_s1.
- Vassilevski:2014:MFB**
- Panayot S. Vassilevski and Umberto Villa. A mixed formulation for the Brinkman problem. *SIAM Journal on Numerical Analysis*, 52(1):258–281, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Veese:2018:QONa**
- Andreas Veese and Pietro Zanotti. Quasi-optimal nonconforming methods for symmetric elliptic problems. I — abstract theory. *SIAM Journal on Numerical Analysis*, 56(3):1621–1642, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Veese:2018:QONb**
- Andreas Veese and Pietro Zanotti. Quasi-optimal nonconforming methods for symmetric

- elliptic problems. III — discontinuous Galerkin and other interior penalty methods. *SIAM Journal on Numerical Analysis*, 56(5):2871–2894, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [VZ19a] **Ve eser:2019:QON**
 Andreas Ve eser and Pietro Zanotti. Quasi-optimal nonconforming methods for symmetric elliptic problems. II — overconsistency and classical nonconforming elements. *SIAM Journal on Numerical Analysis*, 57(1):266–292, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [VZ19b] **Verfurth:2019:QOC**
 Rüdiger Verfurth and Pietro Zanotti. A quasi-optimal Crouzeix–Raviart discretization of the Stokes equations. *SIAM Journal on Numerical Analysis*, 57(3):1082–1099, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wal10] **Walkington:2010:CPD**
 Noel J. Walkington. Compactness properties of the DG and CG time stepping schemes for parabolic equations. *SIAM Journal on Numerical Analysis*, 47(6):4680–4710, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wal14a] **Walkington:2014:TFE**
 Noel J. Walkington. A C^1 tetrahedral finite element without edge degrees of freedom. *SIAM Journal on Numerical Analysis*, 52(1):330–342, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wal14b] **Walkington:2014:CDC**
 Noel J. Walkington. Combined DG–CG time stepping for wave equations. *SIAM Journal on Numerical Analysis*, 52(3):1398–1417, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wan14] **Wang:2014:CLS**
 Qiqi Wang. Convergence of the least squares shadowing method for computing derivative of ergodic averages. *SIAM Journal on Numerical Analysis*, 52(1):156–170, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wan15] **Wang:2015:FOC**
 Yuan-Ming Wang. Fourth-order compact finite difference methods and monotone iterative algorithms for quasi-linear elliptic boundary value problems. *SIAM Journal on Numerical Analysis*, 53(2):1032–1057, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [Wan16] Haiyong Wang. On the optimal estimates and comparison of Gegenbauer expansion coefficients. *SIAM Journal on Numerical Analysis*, 54(3):1557–1581, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WBL⁺15] Zhoufeng Wang, Gang Bao, Jiaqing Li, Peijun Li, and Haijun Wu. An adaptive finite element method for the diffraction grating problem with transparent boundary condition. *SIAM Journal on Numerical Analysis*, 53(3):1585–1607, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WBN16] Andy T. S. Wan, Alexander Bihlo, and Jean-Christophe Nave. The multiplier method to construct conservative finite difference schemes for ordinary and partial differential equations. *SIAM Journal on Numerical Analysis*, 54(1):86–119, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WBN17] Andy T. S. Wan, Alexander Bihlo, and Jean-Christophe Nave. Conservative methods for dynamical systems. *SIAM Journal on Numerical Analysis*, 55(5):2255–2285, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WCF19] Wansheng Wang, Yingzi Chen, and Hua Fang. On the variable two-step IMEX BDF method for parabolic integro-differential equations with non-smooth initial data arising in finance. *SIAM Journal on Numerical Analysis*, 57(3):1289–1317, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WCH10] Huayi Wei, Long Chen, and Yunqing Huang. Superconvergence and gradient recovery of linear finite elements for the Laplace–Beltrami operator on general surfaces. *SIAM Journal on Numerical Analysis*, 48(5):1920–1943, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WCK15] Jeffrey Willert, Xiaojun Chen, and C. T. Kelley. Newton’s method for Monte Carlo-based residuals. *SIAM Journal on Numerical Analysis*, 53(4):1738–1757, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Wang:2016:OEC**Wang:2019:VTS****Wang:2015:AFE****Wei:2010:SGR****Wan:2016:MMC****Willert:2015:NMM****Wan:2017:CMD**

- [Wei19] **Weideman:2019:GHQ**
 J. A. C. Weideman. Gauss–Hermite quadrature for the Bromwich integral. *SIAM Journal on Numerical Analysis*, 57(5):2200–2216, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wei11] **Wells:2011:AIS**
 Garth N. Wells. Analysis of an interface stabilized finite element method: The advection–diffusion–reaction equation. *SIAM Journal on Numerical Analysis*, 49(1):87–109, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p87_s1.
- [WHIC10] **Wang:2010:DGM**
 Fei Wang, Weimin Han, and Xiao liang Cheng. Discontinuous Galerkin methods for solving elliptic variational inequalities. *SIAM Journal on Numerical Analysis*, 48(2):708–733, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wil14] **Willems:2014:RMM**
 J. Willems. Robust multilevel methods for general symmetric positive definite operators. *SIAM Journal on Numerical Analysis*, 52(1):103–124, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WMI10] **Wang:2010:RIS**
 Qiqi Wang, Parviz Moin, and Gianluca Iaccarino. A rational interpolation scheme with
- [WL11] **Wang:2011:EBF**
 Jingyue Wang and Bradley J. Lucier. Error bounds for finite-difference methods for Rudin–Osher–Fatemi image smoothing. *SIAM Journal on Numerical Analysis*, 49(2):845–868, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p845_s1.
- [WL14] **Wang:2014:NDH**
 Yue Wang and Jiequan Li. Numerical defects of the HLL scheme and dissipation matrices for the Euler equations. *SIAM Journal on Numerical Analysis*, 52(1):207–219, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WL16] **Wang:2016:EEH**
 Xiang Wang and Yonghai Li. L^2 error estimates for high order finite volume methods on triangular meshes. *SIAM Journal on Numerical Analysis*, 54(5):2729–2749, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- superpolynomial rate of convergence. *SIAM Journal on Numerical Analysis*, 47(6):4073–4097, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Woj12] **Wojtaszczyk:2012:MND**
P. Wojtaszczyk. ℓ_1 minimization with noisy data. *SIAM Journal on Numerical Analysis*, 50(2):458–467, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i2/p458_s1.
- [WN11] **Walker:2011:AAF**
Homer F. Walker and Peng Ni. Anderson acceleration for fixed-point iterations. *SIAM Journal on Numerical Analysis*, 49(4):1715–1735, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1715_s1.
- [WP19] **Wang:2019:SSS**
Ting Wang and Petr Plecháč. Steady-state sensitivity analysis of continuous time Markov chains. *SIAM Journal on Numerical Analysis*, 57(1):192–217, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WN18] **Wan:2018:ALT**
Andy T. S. Wan and Jean-Christophe Nave. On the arbitrarily long-term stability of conservative methods. *SIAM Journal on Numerical Analysis*, 56(5):2751–2775, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WR11] **Witte:2011:PMN**
J. H. Witte and C. Reisinger. A penalty method for the numerical solution of Hamilton–Jacobi–Bellman (HJB) equations in finance. *SIAM Journal on Numerical Analysis*, 49(1):213–231, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i1/p213_s1.
- [WNP14] **Watanabe:2014:VCE**
Yoshitaka Watanabe, Kaori Nagatou, Michael Plum, and Mitsuhiro T. Nakao. Verified computations of eigenvalue exclosures for eigenvalue problems in Hilbert spaces. *SIAM Journal on Numerical Analysis*, 52(2):975–992, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WR12] **Witte:2012:PMS**
J. H. Witte and C. Reisinger. Penalty methods for the solution of discrete HJB equations-continuous control and obstacle problems. *SIAM Journal on Numerical Analysis*, 50(2):

- 595–625, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [WSZ15]
- Wu:2018:AGF**
- [WS18] Chengda Wu and Weiwei Sun. Analysis of Galerkin FEMs for mixed formulation of time-dependent Ginzburg–Landau equations under temporal gauge. *SIAM Journal on Numerical Analysis*, 56(3):1291–1312, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [Wu18]
- Weinmann:2015:PFR**
- [WSD15] Andreas Weinmann, Martin Storath, and Laurent Demaret. The L^1 -potts functional for robust jump-sparse reconstruction. *SIAM Journal on Numerical Analysis*, 53(1):644–673, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [WW10a]
- Wang:2014:NEA**
- [WSS14] Jilu Wang, Zhiyong Si, and Weiwei Sun. A new error analysis of characteristics-mixed FEMs for miscible displacement in porous media. *SIAM Journal on Numerical Analysis*, 52(6):3000–3020, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [WW10b]
- Wang:2015:SEE**
- Haijin Wang, Chi-Wang Shu, and Qiang Zhang. Stability and error estimates of local discontinuous Galerkin methods with implicit–explicit time-marching for advection–diffusion problems. *SIAM Journal on Numerical Analysis*, 53(1):206–227, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Wu:2018:PPA**
- Kailiang Wu. Positivity-preserving analysis of numerical schemes for ideal magnetohydrodynamics. *SIAM Journal on Numerical Analysis*, 56(4):2124–2147, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Wang:2010:UEE**
- Hong Wang and Kaixin Wang. Uniform estimates of an Eulerian–Lagrangian method for time-dependent convection–diffusion equations in multiple space dimensions. *SIAM Journal on Numerical Analysis*, 48(4):1444–1473, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Wang:2010:OOE**
- Kaixin Wang and Hong Wang. An optimal-order error estimate to ELLAM schemes for

- transient advection–diffusion equations on unstructured meshes. *SIAM Journal on Numerical Analysis*, 48(2):681–707, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WW10c] **Wu:2010:APM**
Gang Wu and Yimin Wei. On analysis of projection methods for rational function approximation to the matrix exponential. *SIAM Journal on Numerical Analysis*, 48(1):191–197, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WW11a] **Wang:2011:ESC**
C. Wang and S. M. Wise. An energy stable and convergent finite-difference scheme for the modified phase field crystal equation. *SIAM Journal on Numerical Analysis*, 49(3):945–969, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i3/p945_s1.
- [WW11b] **Wieners:2011:PDF**
C. Wieners and B. Wohlmuth. A primal-dual finite element approximation for a nonlocal model in plasticity. *SIAM Journal on Numerical Analysis*, 49(2):692–710, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p692_s1.
- [WW13] **Waluga:2013:QOP**
Christian Waluga and Barbara Wohlmuth. Quasi-optimal a priori interface error bounds and a posteriori estimates for the interior penalty method. *SIAM Journal on Numerical Analysis*, 51(6):3259–3279, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WX18] **Wang:2018:TLO**
Wei Wang and Xuejun Xu. A two-level overlapping hybrid domain decomposition method for eigenvalue problems. *SIAM Journal on Numerical Analysis*, 56(1):344–368, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WXZ18] **Wang:2018:CED**
Zhongjian Wang, Jack Xin, and Zhiwen Zhang. Computing effective diffusivity of chaotic and stochastic flows using structure-preserving schemes. *SIAM Journal on Numerical Analysis*, 56(4):2322–2344, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WY11] **Wu:2011:HPF**
Hao Wu and Xu Yang. A hybrid phase flow method for solving the Liouville equation in a

- bounded domain. *SIAM Journal on Numerical Analysis*, 49(2):733–754, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p733_s1. [WYZ18]
- [WY13] Hong Wang and Danping Yang. Wellposedness of variable-coefficient conservative fractional elliptic differential equations. *SIAM Journal on Numerical Analysis*, 51(2):1088–1107, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WY19] M. Winckler and I. Yousept. Fully discrete scheme for Bean’s critical-state model with temperature effects in superconductivity. *SIAM Journal on Numerical Analysis*, 57(6):2685–2706, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WYZ14] Hong Wang, Danping Yang, and Shengfeng Zhu. Inhomogeneous Dirichlet boundary-value problems of space-fractional diffusion equations and their finite element approximations. *SIAM Journal on Numerical Analysis*, 52(3):1292–1310, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wan:2018:CAF] Xiaoliang Wan, Haijun Yu, and Jiayu Zhai. Convergence analysis of a finite element approximation of minimum action methods. *SIAM Journal on Numerical Analysis*, 56(3):1597–1620, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Wang:2013:WVC] Junping Wang and Ran Zhang. Maximum principles for P_1 -conforming finite element approximations of quasi-linear second order elliptic equations. *SIAM Journal on Numerical Analysis*, 50(2):626–642, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WZ12] [Wang:2012:MPC] Haijun Wu and Jun Zou. Finite element method and its analysis for a nonlinear Helmholtz equation with high wave numbers. *SIAM Journal on Numerical Analysis*, 56(3):1338–1359, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [WZ18] [Wu:2018:FEM] Dongling Wang and Jun Zou. Dissipativity and contractivity analysis for fractional functional differential equations and their numerical approximations. *SIAM Journal on Nu-*

- merical Analysis*, 57(3):1445–1470, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2016:LMM**
- [XA16] Wanting Xu and Mihai Anitescu. A limited-memory multiple shooting method for weakly constrained variational data assimilation. *SIAM Journal on Numerical Analysis*, 54(6):3300–3331, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xiang:2013:CRG**
- [XB13] Shuhuang Xiang and Folkmar Bornemann. On the convergence rates of Gauss and Clenshaw–Curtis quadrature for functions of limited regularity. *SIAM Journal on Numerical Analysis*, 50(5):2581–2587, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2019:NMM**
- [XCLY19] Shixin Xu, Xinfu Chen, Chun Liu, and Xingye Yue. Numerical method for multi-alleles genetic drift problem. *SIAM Journal on Numerical Analysis*, 57(4):1770–1788, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2014:DGM**
- [XH14] Qinwu Xu and Jan S. Hesthaven. Discontinuous Galerkin method for fractional convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 52(1):405–423, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xiang:2010:CSD**
- [Xia10] Shuhuang Xiang. Correction to “Strict Diagonal Dominance and Optimal Bounds for the Skeel Condition Number”. *SIAM Journal on Numerical Analysis*, 47(6):4793–4795, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). See [Peñ07].
- Xiang:2012:EBO**
- [Xia12] Shuhuang Xiang. On error bounds for orthogonal polynomial expansions and Gauss-type quadrature. *SIAM Journal on Numerical Analysis*, 50(3):1240–1263, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xiang:2016:IAC**
- [Xia16] Shuhuang Xiang. On interpolation approximation: Convergence rates for polynomial interpolation for functions of limited regularity. *SIAM Journal on Numerical Analysis*, 54(4):2081–2113, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Xu:2010:SAD**
- [XQ10] Xuejun Xu and Lizhen Qin. Spectral analysis of Dirichlet–Neumann operators and optimized Schwarz methods with Robin transmission conditions. *SIAM Journal on Numerical Analysis*, 47(6):4540–4568, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2012:OEE**
- [XS12] Yan Xu and Chi-Wang Shu. Optimal error estimates of the semidiscrete local discontinuous Galerkin methods for high order wave equations. *SIAM Journal on Numerical Analysis*, 50(1):79–104, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v50/i1/p79_s1.
- Xu:2011:GLI**
- [Xu11] Yuan Xu. On Gauss–Lobatto integration on the triangle. *SIAM Journal on Numerical Analysis*, 49(2):541–548, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i2/p541_s1.
- Xu:2010:SNE**
- [XWG10] Qingxiang Xu, Yimin Wei, and Yangyang Gu. Sharp norm-estimations for Moore–Penrose inverses of stable perturbations of Hilbert C^* -module operators. *SIAM Journal on Numerical Analysis*, 47(6):4735–4758, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2018:IIO**
- [XZ18] Xuefeng Xu and Chen-Song Zhang. On the ideal interpolation operator in algebraic multigrid methods. *SIAM Journal on Numerical Analysis*, 56(3):1693–1710, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xie:2019:FEC**
- [XZO19] Hehu Xie, Lei Zhang, and Houman Owjadi. Fast eigenpairs computation with operator adapted wavelets and hierarchical subspace correction. *SIAM Journal on Numerical Analysis*, 57(6):2519–2550, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Xu:2019:NSA**
- [XZwSW19] Yuan Xu, Qiang Zhang, Chi wang Shu, and Haijin Wang. The L^2 -norm stability analysis of Runge–Kutta discontinuous Galerkin methods for linear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 57(4):1574–1601, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Yamada:2019:AHO**
- [Yam19] Toshihiro Yamada. An arbitrary high order weak approximation of SDE and Malliavin Monte Carlo: Analysis of probability distribution functions. *SIAM Journal on Numerical Analysis*, 57(2):563–591, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Yang:2011:TGF**
- [YB11] Yidu Yang and Hai Bi. Two-grid finite element discretization schemes based on shifted-inverse power method for elliptic eigenvalue problems. *SIAM Journal on Numerical Analysis*, 49(4):1602–1624, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1602_s1.
- Yang:2013:BBC**
- [YB13] Z. W. Yang and H. Brunner. Blow-up behavior of collocation solutions to Hammerstein-type Volterra integral equations. *SIAM Journal on Numerical Analysis*, 51(4):2260–2282, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Yang:2010:PEE**
- [YDG10] Xiaoyuan Yang, Yuanyuan Duan, and Yuhua Guo. A posteriori error estimates for finite element approximation of un-
- steady incompressible stochastic Navier–Stokes equations. *SIAM Journal on Numerical Analysis*, 48(4):1579–1600, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Ye:2013:EBL**
- [Ye13] Qiang Ye. Error bounds for the Lanczos methods for approximating matrix exponentials. *SIAM Journal on Numerical Analysis*, 51(1):68–87, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Yi:2015:VCP**
- [YG15] Lijun Yi and Benqi Guo. An h - p version of the continuous Petrov–Galerkin finite element method for Volterra integro-differential equations with smooth and nonsmooth kernels. *SIAM Journal on Numerical Analysis*, 53(6):2677–2704, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Yang:2016:LCA**
- [YH16] Wei Hong Yang and Deren Han. Linear convergence of the alternating direction method of multipliers for a class of convex optimization problems. *SIAM Journal on Numerical Analysis*, 54(2):625–640, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [YHX17] **Yin:2017:BIE**
Tao Yin, George C. Hsiao, and Liwei Xu. Boundary integral equation methods for the two-dimensional fluid-solid interaction problem. *SIAM Journal on Numerical Analysis*, 55(5):2361–2393, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Yi17] **Yi:2017:STM**
Son-Young Yi. A study of two modes of locking in poroelasticity. *SIAM Journal on Numerical Analysis*, 55(4):1915–1936, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Yin09] **Ying:2009:SFT**
Lexing Ying. Sparse Fourier transform via butterfly algorithm. *SIAM Journal on Scientific Computing*, 31(3):1678–1694, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). Numerical instability from the use of a monomial basis has been reported and repaired [KM12b].
- [YKF18] **Yan:2018:AML**
Yubin Yan, Monzorul Khan, and Neville J. Ford. An analysis of the modified L_1 scheme for time-fractional partial differential equations with nonsmooth data. *SIAM Journal on Numerical Analysis*, 56(1):210–227, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [YLH18] **Yang:2018:MAF**
Wei Yang, Jichun Li, and Yunqing Huang. Mathematical analysis and finite element time domain simulation of arbitrary star-shaped electromagnetic cloaks. *SIAM Journal on Numerical Analysis*, 56(1):136–159, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [You17] **Yousept:2017:HMV**
Irwin Yousept. Hyperbolic Maxwell variational inequalities for Bean’s critical-state model in Type-II superconductivity. *SIAM Journal on Numerical Analysis*, 55(5):2444–2464, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [YS13] **Yang:2013:AOS**
Yang Yang and Chi-Wang Shu. Analysis of optimal superconvergence of discontinuous Galerkin method for linear hyperbolic equations. *SIAM Journal on Numerical Analysis*, 50(6):3110–3133, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [YXL19] **You:2019:GEB**
 Chun'guang You, Hehu Xie, and Xuefeng Liu. Guaranteed eigenvalue bounds for the Steklov eigenvalue problem. *SIAM Journal on Numerical Analysis*, 57(3):1395–1410, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [YZ11] **Yevik:2011:NAS**
 Andrei Yevik and Huaizhong Zhao. Numerical approximations to the stationary solutions of stochastic differential equations. *SIAM Journal on Numerical Analysis*, 49(4):1397–1416, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i4/p1397_s1.
- [YZ14] **Yang:2014:CSE**
 Xu Yang and Jiwei Zhang. Computation of the Schrödinger equation in the semiclassical regime on an unbounded domain. *SIAM Journal on Numerical Analysis*, 52(2):808–831, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [YZ17] **Yousept:2017:EEM**
 Irwin Yousept and Jun Zou. Edge element method for optimal control of stationary Maxwell system with Gauss law. *SIAM Journal on Numerical Analysis*, 55(6):2787–2810, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZB15] **Zhao:2015:RES**
 Lin Zhao and Alex Barnett. Robust and efficient solution of the drum problem via Nyström approximation of the Fredholm determinant. *SIAM Journal on Numerical Analysis*, 53(4):1984–2007, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZCY12] **Zhang:2012:ILM**
 Jianping Zhang, Ke Chen, and Bo Yu. An iterative Lagrange multiplier method for constrained total-variation-based image denoising. *SIAM Journal on Numerical Analysis*, 50(3):983–1003, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZD10] **Zhou:2010:MNA**
 Kun Zhou and Qiang Du. Mathematical and numerical analysis of linear peridynamic models with nonlocal boundary conditions. *SIAM Journal on Numerical Analysis*, 48(5):1759–1780, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZD12] **Zhang:2012:SDD**
 Jingyan Zhang and Qiang Du. Shrinking dimer dynamics and

- its applications to saddle point search. *SIAM Journal on Numerical Analysis*, 50(4):1899–1921, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ZG12]
- Zhang:2018:RBG**
- [ZDK18] Zhijiang Zhang, Weihua Deng, and George Em Karniadakis. A Riesz basis Galerkin method for the tempered fractional Laplacian. *SIAM Journal on Numerical Analysis*, 56(5):3010–3039, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ZG18]
- Zhang:2016:MAF**
- [ZF16] Qinghai Zhang and Aaron Fogelson. MARS: an analytic framework of interface tracking via mapping and adjusting regular semialgebraic sets. *SIAM Journal on Numerical Analysis*, 54(2):530–560, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ZGD17]
- Zhao:2017:SSR**
- [ZFX17] Jingjun Zhao, Yan Fan, and Yang Xu. Stability of symmetric Runge–Kutta methods for neutral delay integro-differential equations. *SIAM Journal on Numerical Analysis*, 55(1):328–348, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). [ZH15]
- Zhang:2012:EAS**
- Guannan Zhang and Max Gunzburger. Error analysis of a stochastic collocation method for parabolic partial differential equations with random input data. *SIAM Journal on Numerical Analysis*, 50(4):1922–1940, 2012. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2018:CDG**
- Chenglong Zhang and Irene M. Gamba. A conservative discontinuous Galerkin solver for the space homogeneous Boltzmann equation for binary interactions. *SIAM Journal on Numerical Analysis*, 56(5):3040–3070, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zou:2017:HOC**
- Qingsong Zou, Li Guo, and Quanling Deng. High order continuous local-conserving fluxes and finite-volume-like finite element solutions for elliptic equations. *SIAM Journal on Numerical Analysis*, 55(6):2666–2686, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zudrop:2015:AHO**
- J. Zudrop and J. S. Hesthaven. Accuracy of high order and spectral methods for hyperbolic conservation laws with discontinuous solutions. *SIAM Journal on Numerical Analysis*, 53

- (4):1857–1875, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2013:FUA**
- [Zha13a] Qinghai Zhang. On a family of unsplit advection algorithms for volume-of-fluid methods. *SIAM Journal on Numerical Analysis*, 51(5):2822–2850, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2013:SPP**
- [Zha13b] Zhimin Zhang. Superconvergence points of polynomial spectral interpolation. *SIAM Journal on Numerical Analysis*, 50(6):2966–2985, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2017:HHF**
- [Zha17] Qinghai Zhang. HFES: a height function method with explicit input and signed output for high-order estimations of curvature and unit vectors of planar curves. *SIAM Journal on Numerical Analysis*, 55(2):1024–1056, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2019:EBD**
- [ZHA19] Lu Zhang, Thomas Hagstrom, and Daniel Appelö. An energy-based discontinuous Galerkin method for the wave equation with advection. *SIAM Journal on Numerical Analysis*, 57(5):2469–2492, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhen:2014:OEE**
- [Zhe14] Chunxiong Zhen. Optimal error estimates for first-order Gaussian beam approximations to the Schrödinger equation. *SIAM Journal on Numerical Analysis*, 52(6):2905–2930, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zheng:2017:WCR**
- [Zhe17] Chao Zheng. Weak convergence rate of a time-discrete scheme for the Heston stochastic volatility model. *SIAM Journal on Numerical Analysis*, 55(3):1243–1263, 2017. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2016:SCA**
- [ZHS16] Yuhong Zhang, Yanren Hou, and Li Shan. Stability and convergence analysis of a decoupled algorithm for a fluid-fluid interaction problem. *SIAM Journal on Numerical Analysis*, 54(5):2833–2867, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- [ZHZ⁺14] **Zhou:2014:TGM**
 J. Zhou, X. Hu, L. Zhong, S. Shu, and L. Chen. Two-grid methods for Maxwell eigenvalue problems. *SIAM Journal on Numerical Analysis*, 52(4):2027–2047, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZJB16] **Zhao:2016:GNC**
 Zhi Zhao, Xiao-Qing Jin, and Zheng-Jian Bai. A geometric nonlinear conjugate gradient method for stochastic inverse eigenvalue problems. *SIAM Journal on Numerical Analysis*, 54(4):2015–2035, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZLB16] **Zhang:2016:ACM**
 Ran Zhang, Hui Liang, and Hermann Brunner. Analysis of collocation methods for generalized auto-convolution Volterra integral equations. *SIAM Journal on Numerical Analysis*, 54(2):899–920, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZLL⁺14] **Zeng:2014:CNA**
 Fanhai Zeng, Fawang Liu, Changpin Li, Kevin Burrage, Ian Turner, and V. Anh. A Crank–Nicolson ADI spectral method for a two-dimensional Riesz space fractional nonlinear reaction–diffusion equation. *SIAM Journal on Numerical Analysis*, 52(6):2599–2622, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZLY16] **Zhang:2016:OOE**
 Jin Zhang, Xiaowei Liu, and Min Yang. Optimal order L^2 error estimate of SD-FEM on Shishkin triangular meshes for singularly perturbed convection–diffusion equations. *SIAM Journal on Numerical Analysis*, 54(4):2060–2080, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [ZM16] **Zakerzadeh:2016:CSC**
 Mohammad Zakerzadeh and Georg May. On the convergence of a shock capturing discontinuous Galerkin method for nonlinear hyperbolic systems of conservation laws. *SIAM Journal on Numerical Analysis*, 54(2):874–898, 2016. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- [Zou18] **Zouraris:2018:CNF**
 Georgios E. Zouraris. Crank–Nicolson finite element approximations for a linear stochastic fourth order equation with additive space-time white noise. *SIAM Journal on Numerical Analysis*, 56(2):838–858, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

- Zhang:2010:SAP**
- [ZS10a] Qiang Zhang and Chi-Wang Shu. Stability analysis and a priori error estimates of the third order explicit Runge–Kutta discontinuous Galerkin method for scalar conservation laws. *SIAM Journal on Numerical Analysis*, 48(3):1038–1063, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2010:GHO**
- [ZS10b] Xiangxiang Zhang and Chi-Wang Shu. A genuinely high order total variation diminishing scheme for one-dimensional scalar conservation laws. *SIAM Journal on Numerical Analysis*, 48(2):772–795, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zharovsky:2015:CIE**
- [ZSZ15] Evgeniy Zharovsky, Adrian Sandu, and Hong Zhang. A class of implicit-explicit two-step Runge–Kutta methods. *SIAM Journal on Numerical Analysis*, 53(1):321–341, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2015:WCV**
- [ZTRK15] Zhongqiang Zhang, Michael V. Tretyakov, Boris Rozovskii, and George E. Karniadakis. Wiener chaos versus stochastic collocation methods for linear advection–diffusion–reaction equations with multiplicative white noise. *SIAM Journal on Numerical Analysis*, 53(1):153–183, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zulehner:2015:CRM**
- [Zul15] Walter Zulehner. The Ciarlet–Raviart method for biharmonic problems on general polygonal domains: Mapping properties and preconditioning. *SIAM Journal on Numerical Analysis*, 53(2):984–1004, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zheng:2011:NRM**
- [ZW11] G. H. Zheng and T. Wei. A new regularization method for the time fractional inverse advection-dispersion problem. *SIAM Journal on Numerical Analysis*, 49(5):1972–1990, 2011. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). URL http://epubs.siam.org/sinum/resource/1/sjnaam/v49/i5/p1972_s1.
- Zhu:2013:PEA**
- [ZW13] Lingxue Zhu and Haijun Wu. Preasymptotic error analysis of CIP–FEM and FEM for Helmholtz equation with high wave number. Part II: *hp* version. *SIAM Journal on Numerical Analysis*, 51(3):1828–1852, 2013. CODEN SJNAAM.

- ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zeng:2018:ERP**
- [ZW18] Chao Zeng and Chunlin Wu. On the edge recovery property of nonconvex nonsmooth regularization in image restoration. *SIAM Journal on Numerical Analysis*, 56(2):1168–1182, 2018. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2015:HAS**
- [ZWGB15] G. Zhang, C. Webster, M. Gunzburger, and J. Burkardt. A hyperspherical adaptive sparse-grid method for high-dimensional discontinuity detection. *SIAM Journal on Numerical Analysis*, 53(3):1508–1536, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhao:2013:SEB**
- [ZWX13] Xiaodan Zhao, Li-Lian Wang, and Ziqing Xie. Sharp error bounds for Jacobi expansions and Gegenbauer–Gauss quadrature of analytic functions. *SIAM Journal on Numerical Analysis*, 51(3):1443–1469, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2014:OSF**
- [ZX14] Shuo Zhang and Jinchao Xu. Optimal solvers for fourth-order PDEs discretized on unstructured grids. *SIAM Journal on Numerical Analysis*, 52(1):282–307, 2014. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhu:2019:FHO**
- [ZX19] Hongyi Zhu and Chuanju Xu. A fast high order method for the time-fractional diffusion equation. *SIAM Journal on Numerical Analysis*, 57(6):2829–2849, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhao:2010:SMS**
- [ZZJ10] Weidong Zhao, Guannan Zhang, and Lili Ju. A stable multistep scheme for solving backward stochastic differential equations. *SIAM Journal on Numerical Analysis*, 48(4):1369–1394, 2010. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).
- Zhang:2015:OEE**
- [ZZK15] Zhongqiang Zhang, Fanhai Zeng, and George Em Karniadakis. Optimal error estimates of spectral Petrov–Galerkin and collocation methods for initial value problems of fractional differential equations. *SIAM Journal on Numerical Analysis*, 53(4):2074–2096, 2015. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Zhu:2013:MVF

- [ZZLB13] Jiang Zhu, Jiansong Zhang, Abimael F. D. Loula, and Luiz Bevilacqua. Mixed variational formulation and numerical analysis of thermally coupled nonlinear Darcy flows. *SIAM Journal on Numerical Analysis*, 51(5):2746–2772, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Zhao:2019:DFN

- [ZZMC19] Jikun Zhao, Bei Zhang, Shipeng Mao, and Shaochun Chen. The divergence-free nonconforming virtual element for the Stokes problem. *SIAM Journal on Numerical Analysis*, 57(6):2730–2759, 2019. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Zhang:2013:EEM

- [ZZY13] Xuping Zhang, Jintao Zhang, and Bo Yu. Eigenfunction expansion method for multiple solutions of semilinear elliptic equations with polynomial nonlinearity. *SIAM Journal on Numerical Analysis*, 51(5):2680–2699, 2013. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).