

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

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## Title word cross-reference

CG90b, CH90a, CKLA87, Fos90, GN88,  
GLN88, Luk86, BH91b]. *WY*  
[BV87a, Pug92, SV89].

1 [EGM84]. 1024 [GMB88]. 2 [Gro80]. 2 – 4  
[AG80].  $2^{31} - 1$  [FM86b, FM86a].  $2 \times 2$   
[PT83].  $A - \lambda B$  [Kåg86].  $A^T Ax = b$  [JA84].  
*D* [RS89].  $\ell_1$   
[BT80, Dax89, MO81, OW85, Wom86].  $\ell_\infty$   
[BJ89, Str86, JB83].  $\epsilon$  [Tan88]. *F* [HR85].  
GMRES(*m*) [TW92]. *h* [HM88].  $h^2$  [Swa87a].  
*hp* [BEM92]. *ILU* [Wit89]. *k* [Nie84].  $\lambda$   
[SW82]. *LU* [GR88, KK92a, GN88, GLN88].  
*M*  
[Cla85, Riv88, Tyl88, CO86, DL92, Ada85].  
*N* [Kat89].  $N = 2^p 3^q 5^r$  [Tem92].  $N \times N$   
[GT90].  $O(N^2)$  [GT90].  $O(n^2 \log n)$   
[ETW92]. *p* [HM88, Yip86].  $P^4$  [ADGR90].  
 $P^5$  [ADGR90]. *QR* [Bis91, Bye86, CH92,

**-algorithm** [Tan88]. **-and** [HM88]. **-body**  
[Kat89]. **-D** [Gro80, EGM84].  
**-decomposition** [Luk86]. **-distribution**  
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[Cla85, CO86]. **-estimators** [Riv88].  
**-factorizations** [CH90a, BH91b].  
**-Matrices** [DL92]. **-matrix** [SW82].  
**-optimal** [RS89]. **-processor** [GMB88].  
**-Step** [Ada85, Nie84]. **-Version** [BEM92].  
**-versions** [HM88].

1 [Hel83].

2 [Bai88, Van83].

4 [DH86].

**82g** [Hel83]. **83h** [Van83].

**Abel** [VG83]. **Absolute** [BS80, Row88].

**Absorbing** [BCJ<sup>+</sup>88]. **Abstractions** [Bad91]. **accelerated** [RS89]. **Accelerating** [JB85]. **acceptance** [Fis90b].

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**Adams** [Hig89, LP91, WS86]. **Adaptation** [WP90]. **Adapting** [Gro87b]. **Adaptive**

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**Algorithms** [ADGR90, Boi91, Bon87, CW92, CO86, Dev91, ESS81, Gan90, GS89, GRMM92, KS91, KC90, LN89, MV87, PT83, Sch91, Ser92, VP92, WH85, Wri91, Wri92, BMA86, BI87b, BC83, Bro91, Cha84a, CJ84, CS85c, CKLA87, DH86, EHHR88, GR88,

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**Diminishing** [CGR86, Shu88, BC89].  
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**Discretizations** [OS81, Shu88, BD81, Boi81, GO82].  
**Discretize** [Vel90]. **Discretized** [KN82].  
**discriminant** [Cro91]. **discrimination** [GJW86]. **dispersion** [KMM84].  
**displacement** [BDG80, Pot85]. **distance** [BBS87, Bye88]. **distances** [CC80].  
**Distributed** [AEL90, PAF92, PR89, EHHR88, GR88, HR88, LC88, LC89].  
**Distributed-Memory** [PAF92, EHHR88, GR88, HR88, LC88, LC89].  
**Distribution** [Hel83, Hel89, Knü86, LR84, Ric80, Bro86, Dek83, DH82, DJH80, HR85, Sho86, Tie83, VG83]. **Distributions** [Bon87, Tor90, HP84, Kem87, UW87].  
**disturbance** [Fis88]. **Divide** [GT90].  
**Division** [GS91a]. **do** [SS85]. **Domain** [BW89a, BW89b, BEPP92, CW92, CG90a, CH91, CL81, FR92, GK92a, GK92b, N'K91, OT89, Qua90, SC90, SW90, Smi92, TCK91,

Vav91, CR87a, CR87b, GK88, KG87].

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[GK92b, CR87a, CR87b]. **Domains** [Mik91, PK84, Pea91, DK85, GP88b, Kop89, PK89].

**Dominant** [Cyb84]. **doubling** [IIMPL85].

**Doubly** [PK84, For84].

**Doubly-Connected** [PK84]. **down**

[Dax83]. **Downdating** [BBVD87, BS91].

**Downstream** [Hag91]. **DSTIFF** [Gup85].

**dual** [Kiw89]. **duct** [BAF86]. **Ducts** [HB85].

**Durbin** [Cyb80]. **dynamic** [MN87].

**Dynamically** [Bad91]. **Dynamics** [BT82, Col82, Col85, PLB90, SP91, GO82, SS81b].

**easily** [MT84a]. **editing** [McK84].

**Editorial** [Gea87]. **Editors** [GV87a].

**educational** [Fle81]. **Effect**

[Wor90, Bub88, SB89]. **effective** [YMJ<sup>+</sup>89].

**Effectively** [CF88]. **Effectiveness** [Ker88].

**effects** [SNN87]. **Efficiency**

[CG90a, Dec91]. **Efficient**

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**Eigendecomposition** [CH91].

**eigenproblem** [Lau88]. **Eigenproblems**

[BMR83]. **Eigensystem** [GT90].

**Eigenvalue** [IJ90, LZS91, MLJN92, War81, BL85, CK82, CV86, DS87, LPS87, Sch86,

Van81, Van83, WG83]. **Eigenvalues** [Arb91, Ach89, MTPR87, MS86, Par84, Sco84].

**eigenvectors** [Sco84]. **elastic**

[BS83, Mén83, PR86, TP91]. **elastic-plastic**

[TP91]. **Elasticity** [Sch91, Smi92].

**elastodynamic** [SKA86]. **Electrical**

[NSV83]. **Electron** [WS83]. **Element**

[AEL92, BEM92, DM90b, DM92, FR92,

For91, Geo91, Let92, MC90, NPV91, NOP85, Smi92, AF88, BDS87, BDG80, CK83, DF82,

GR85, GN88, GWJ84, GP88b, Jar86,

Man82, Pet83a, PW80].

**element-capacitance** [PW80]. **Elements**

[Bun80, Fos90]. **Elimination**

[LS88, BS87, BR90, Cha84a, ESS81, GN85a,

GN87, Liu88]. **Ellipses** [ST80]. **Elliptic**

[BC86, BW89a, CW92, CH91, DM90b,

Gre91, IKK91, JMPW92, KC90, SC90,

TCK92, VE92, Boi81, BK86, CK82, CS85b,

Gre82, GK88, HM88, KG87, KT87, KLM87,

Ros85, SSS85, Sch85b, Seg82, Str80].

**Elongated** [HT90]. **emanating** [RD89].

**empirical** [Ruh80]. **enclosure** [BRBC83].

**enclosures** [BR84]. **Engine** [BW89b].

**Engquist** [van84]. **Enhanced**

[Lan92, BF84]. **Enhancement** [MC90].

**ensemble** [Joh87]. **Environment**

[WP90, Liu87b]. **environments**

[MP85a, MP85b, MP88, OP88]. **enzyme**

[CSL85]. **equality** [BH88, BNP88].

**equality-constrained** [BNP88]. **Equation**

[Dav81, Mul90a, N'K91, Ser92, van92b,

ABDP81, AD84, CJ86, CMd84, Fis88,

Gar82, Gea88, Gut83, Hal81, HC83, KP91,

KM80, Kui87, LaV80, MMM84, May85,

Pet83a, PW80, Sch84, SB87, Smo82, Swa87b,

Tis89, VG83, WH87, dv85]. **Equations**

[Ano89, Bic91, BP90, Can92, CL90, Dar92,

Dt90, DM90a, GS92a, GRMM92, Gre91,

GSS86, HSST92, KPC90, LNK91, MG92,

Mon92, MR92, N'K91, OT89, Rei90, RST92,

Sch92, SP88, SB90, Tam92a, Tam92b, Tum92,

VP92, Wor91, ZBS92, ten88, AP81, AMOS87,

Asc89, BF81, BRI84, BW80, Ber88, BD81,

BB87b, Blu80, BBK84, BS90, Bue86, Bun85,

Cam85, CM81, CS89, Coc85, CSL85, Cyb80,

DF82, Dax89, Duf84b, DR84, DNR87, DR86,

ESS86, ES80, FM81, GS83, GHN84, GJ82,

Gre82, GK88, GP88b, HK86, HLS85, HM88,

JD89, KG87, Kop89, KL88, LBD91, LC84,

LC87, MTPR87, MS84a, Man82, MLDR88,

Mit87, Mul90b, OS91a, Pet82, Pet83b, PL86,

PR86, PK89, RM91, Rei81, SSS85, SW86,

SP86, SGMS88, SC80, Ste81, Str86].

**equations**

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VC89, WS84, YWBJ86, vd82, EGJ<sup>+</sup>89].

**Equidistributing** [KN80].

**Equidistribution** [RR92]. **equilibrium** [PR86]. **Equivalent** [Liu88]. **ergodic** [wEC90]. **Errata** [CR87b]. **Erratum** [FM86a, Tre80a, Van83, Wah82]. **erroneous** [GKL88]. **Error** [GKL88, LaV80, AF89, Ber88, LP91, SB85]. **error-stepsize** [LP91]. **Errors** [Fle86, LBD91, Mel82]. **Estimates** [Hag84, KL91, SB85, Tyl88]. **Estimating** [O'L80, Osb87, VG83, Tie83]. **Estimation** [GL81, Hig89, IKK91, O'S88b, O'S91b, PR85, BW87, Ber88, Bun87, ESS82, Sni84, Var82, Var90]. **Estimator** [CO86, Hig90, Cla85]. **Estimators** [O'S88a, CR83, Riv88, ZWS86]. **Euclidean** [CC80]. **Euler** [Mul90b, OT89, SA89, Tum92]. **Eulerian** [Col85, DK87]. **Evaluating** [FGR92]. **Evaluation** [CW91, Die85, EGL<sup>+</sup>87, HR85, Iye88, OR89, AR91, Gup85, Hel83, Ric80, Ros85]. **Evaluations** [KS91]. **Even** [ten88, Dt90]. **event** [Hei88]. **evidence** [Sch85a]. **Exact** [CL81, JB83]. **exactness** [SO85]. **Example** [HR90]. **examples** [CR83]. **exhaustible** [AW80]. **exhaustive** [FM86b, FM86a]. **existence** [Tyl88]. **Expanded** [DK85]. **expansions** [AR91, AF89]. **Experience** [Hig90]. **Experiment** [JMPW92]. **Experiments** [BHW85, NPV91, Gut83]. **expert** [SC88]. **Explicit** [OZ92, EY88, JB85]. **Exponential** [McC90, Osb87]. **Exponentials** [Var85, Ruh80]. **Extension** [CL81, SC90]. **Extensions** [TCK92, Hea82]. **Exterior** [DE91a, KM80, YWBJ86]. **Extra** [Bai88]. **extraction** [Par84]. **Extrapolated** [KS83, HM88]. **Extrapolation** [Rüd92, Gen82, HM83, Sha83, SB85, Vd85]. **Extremal** [dR82].

**facility** [Wat83b]. **Factor** [Luk84, Luk85, Tem92, Ott89]. **Factorization** [ADGR90, AEL90, AE91, Bar90, BH91a, Bis91, BBVD87, BS91, CH92, CG90b, DC92, GS92b, HD92, HP91, HZ91, KK92a, SE90, AG88, BF84, Cha91, CKLA87, Fos90, GR88, GN87, GN88, GHLN88, LPP89, Liu87a, Liu87b, Mer85, PR89, SW82].

**Factorizations** [CG90a, BH91b, CH90a, GLN88]. **factors** [Gre85, Ren87]. **Families** [Boi81]. **Family** [CJ92, Hen86, KK92b, Osb87]. **Fan** [AEL90]. **Fan-In** [AEL90]. **Far** [Gus88]. **Far-field** [Gus88]. **Fast** [And92, Bun86, CKLA87, Cyb84, Cyb87, Dar92, DMM90, GGS87, GS91b, Hac81, HLS85, HSST92, HS90, KS91, May85, MG92, OR89, O'S88a, PA92, Str91, Tem91, Ves91, van92a, AR91, CGR88, CR87a, CR87b, Fra90, Gut83, LPP89, MT84a, Ost89, Ott89, Son89, YWBJ86]. **favorable** [Kem87]. **features** [Duf84a]. **feedback** [BRI84, Nie87]. **few** [Sco84]. **FFT** [BHSO87, Bun86, Tem92, dB80]. **FFTs** [Bri87]. **field** [Gus88]. **filled** [Lin86b]. **Filter** [OP91]. **Filtering** [TCK92, Bud87, VV88]. **finding** [KF85, Le85]. **finger** [RS85]. **Finite** [AEL92, BEM92, BRBC83, BR84, Bun80, CO86, DM90b, DM92, FR92, For91, GP88b, Let92, MC90, NPV91, SS81a, Sch91, Smi92, Str84, VPL92, AF88, AD84, BDS87, BDG80, CK83, DF82, Dav87, GR85, GN88, GWJ84, Jar86, KMM84, KL88, Man82, NP83, Pet83a, PR86, PW80, SS81b, Wat80]. **Finite-Difference** [MC90, KL88]. **Finite-Element** [AEL92, DM90b, MC90, GP88b, AF88, GN88]. **first** [Str80, Vel90, Vd85]. **fitted** [SC80]. **Fitting** [BS80, Ruh80, Var85, BDS84, DLR86, JB83, OS91a, Ost89]. **Fixed** [KS91]. **Flame** [Lar89]. **flexible** [BDG80]. **Flow** [Cho92, EGM84, Fis90a, Gre90, Hag91, HR90, Ach89, Che83, For89, GWJ84, Kui87, Lin86b, MWM87, MW90, Mén83, Pet89, PK89, YWBJ86, van86]. **Flows** [AEL92, CP92a, Wal91, BAF86, Fis88, GLO81]. **Fluid** [BT82, MLJN92, RS84, RS85, SS81b].



**Flux** [Roe92]. **Folds** [YK86, BK86].  
**Following** [HR90, Eil86, Kel83]. **force**  
 [HPW84]. **Forced** [RS84]. **forcing** [Swa87c].  
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 [Cup83, Dub91, HSS92, FG86, GN86, TE91].  
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**formula** [Yip86]. **Formulae**  
 [Roe92, AH87, TSD83]. **formulas**  
 [Add84, KWF84, Sha80, SA89, WS84].  
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 [GMSW83]. **foundations** [BS83]. **Fourier**  
 [Cha91, CB90, DM92, DC92, Fra90, Gut83,  
 KC90, LK87, Ott89, Tem91].  
**Fourier-Series** [CB90]. **fourth**  
 [Bue86, SB87]. **fourth-order** [SB87].  
**fractions** [PV86]. **Frank** [Var86].  
**Frederickson** [Dec91]. **Free**  
 [GS91a, BC83, RM91, Wes84].  
**free-Lagrange** [RM91]. **frequencies**  
 [Coc85]. **Frequency** [BH91a]. **Friction**  
 [Löt84]. **frog** [AG80]. **Front**  
 [GMMS86, RT91, Buk88, Mar86b]. **frontal**  
 [Duf84a, Mel88]. **fronts** [Buk88]. **Fully**  
 [N'K91, O'S88a, SK86, BF84, DS87].  
**Function** [CH90b, Dev91, KS91, KL91,  
 Bro86, Le85, Sho86]. **functional** [MTPR87].  
**functional-differential** [MTPR87].  
**Functions** [DS84, PK84, Utr81b, Web92,  
 CO83, DLR86, LM85, LK87, MT84a, OS91a,  
 TW80, Utr87, YFI89]. **Further** [Bri87].  
**Fuzzy** [Cel91].

**Galerkin** [BS83, WS87, dv89]. **gamma**  
 [TW80]. **Gas** [Col82, Col85, MPL83, BDS84,  
 GWJ84, GO82, KMM84]. **Gather** [LS88].  
**Gather/Scatter** [LS88]. **Gauss**  
 [BW87, Dub91, ES88, Fra89, GS91b,  
 KWF84, Mul90b, ST89, Str91]. **Gaussian**  
 [Atk82, BR90, ESS81, GN85a, GN87, LS88].  
**GCV** [GW91]. **GCV/GML** [GW91].  
**Gearlike** [Pea91]. **General** [BS87, Bjö84,  
 BW83, HSS92, Hen86, Kea83, MS84b,  
 TCK92, CS85b, Liu86, Liu87a, Sho86].

**General-Purpose** [BW83].  
**Generalization** [Var86, FJ86].  
**Generalizations** [MS86]. **Generalized**  
 [BGF91, MLJN92, PS91, SU90, Tem92,  
 War81, Wei92, ZY92, Atk82, BW87, LC87,  
 Nie87, Pai86, SS86a, Utr87, Van81, Van83,  
 WRWD84]. **Generating**  
 [Dev91, Gau82, MO84, BMA86, BJ89, Gre85].  
**Generation** [AOU87, Ber86, Cas91, D'A91,  
 MT84b, SC80, ES80, Eri85, UW87].  
**Generators**  
 [Alt88, FM86b, FM86a, Nie84, Nie87].  
**Geodesic** [SP90]. **geodetic** [GMT86].  
**Geometric** [AKHC<sup>+</sup>92]. **gigaflop** [DH86].  
**Given** [Dev91, ZY92]. **Givens'**  
 [BG88, BI87a, GS91a, Liu86, Ost87, PR89].  
**GKS** [Thu86]. **Glimm** [Col82, Gil89].  
**Global** [Ber88, PR88, SB85, Vd85, AF89,  
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**Godunov** [Dav88, van84]. **Godunov-Type**  
 [Dav88]. **good** [MMM84]. **Gordon** [HM88].  
**GPST** [LC87]. **grade** [AW80]. **Gradient**  
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**Gradient-Type** [Fre92]. **gradients** [CS89].  
**Gram** [JP91]. **grand** [Asi85]. **Graphics**  
 [HB90]. **gravity** [For89]. **Grid**  
 [Man91, MR92, PLB90, ZY92, ABDP81,  
 CK82, CS85c, Jar86, vd82, Ber86, Cas91,  
 Kre83, MT84b, MW85]. **Grid-Based**  
 [MR92]. **Grids**  
 [Gro87a, Mit92, SC90, VPL92, Kop89].  
**Groundwater** [For91, Kui87, MWM87].  
**Group** [MI91, EY88]. **growth**  
 [AW80, LaV80]. **Guide** [Kri82]. **Gummel**  
 [Ker88].

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**Harmonics** [Cyb84]. **Hartley** [Bun86].  
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**Heat** [Ser92, Mur81]. **Helmholtz** [KM80]. **Hermite** [DR86, Hig91]. **Hermitian** [AMO92]. **Hessenberg** [Dub91]. **Hessian** [GO89, Var90]. **heterogeneous** [MW90]. **Heuristics** [PAF92]. **Hierarchical** [Rüd92, SW90, GJM87]. **High** [HB90, Lin86a, MS84a, TE91, TW92, van89, Bai88, Boi81, BL87, HR87, May85]. **High-Dimensional** [HB90]. **High-order** [Lin86a, BL87]. **Higher** [YK86, Cam85, Kel83]. **Highly** [GS92b, Tum92, BMxx]. **Hilbert** [MU88]. **Histoplins** [MC89]. **Hodgkin** [SP88]. **homogeneous** [FM81, KL88]. **Homotopy** [DIR<sup>+</sup>92b, LZS91, Wat80, WS87]. **Hopf** [RD89]. **Hopscotch** [Dt90, ten88]. **Hot** [WS83]. **Hot-Electron** [WS83]. **Householder** [BV87a, BV87b, BS91, GN86, PR89, Pug92, SV89, Wal88]. **Householder-Based** [BS91]. **Huber** [BD84, Cla85, CO86, Riv88]. **Huxley** [SP88]. **Hybrid** [BS90, DMM90, CK83, ESS86]. **Hydrodynamical** [HR90]. **Hydrodynamics** [Bic91]. **Hyperbolic** [Thu90, Atk82, ES80, Gro80, Gus88, Kop89, LO87, RT91, SC80]. **Hypercube** [CG90b, HP91, IJ90, MV87, SW92, GMB88, LNK91]. **Hypercubes** [MR92]. **Hypersurfaces** [Par92].

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[OR86, GMSW83]. **Introduction** [MP92a, MP85a]. **Invariant** [DLR91, DL92, van92b, VV88, van87]. **invariants** [Gea86]. **Inverse** [BKK86, JI92, PS91, AP81, Atk82, CM87, Fun88, HC83, Lau88, LC84, Mur81, Pai84, Sho86, WG83]. **inverses** [WRWD84]. **Inversion** [WS91, Bub88, SS86b, dKS82]. **inverted** [Sco82]. **investigation** [AH86, AH87]. **inviscid** [Mul90a, GLO81, LaV80]. **invariant** [CC80]. **irreducible** [PV86]. **Irregular** [MG92, May85]. **isochrones** [Cup84]. **Issue** [MP92b]. **Iterated** [vdHS91, BB87b]. **Iteration** [JI92, Man91, PS91, AH86, MN87, Ske89, Wes84, dR82]. **Iterative** [AS90, AEL92, AG92, BNP88, CS85a, DIR<sup>+</sup>92b, EG92, GS83, HD92, HSST92, KC90, MP92b, MG92, Mit92, Str80, WW90, CJ86, GMT86, Gut83, HC83, JB85, Kui87, LC84, Ort88]. **Iteratively** [WS88]. **IVPs** [CJ86].

**J** [Hel83, Van83]. **Jaccard** [Wat83b]. **Jacobi** [De 89, HV87, Har89, LP89, Man91, Ste85]. **Jacobi-like** [Ste85]. **Jacobian** [CM81]. **Jacobians** [RST92]. **jet** [SG80]. **Josephson** [van92b].

**Kalman** [VV88]. **kernel** [SSJ88]. **Kernels** [Can92]. **kind** [BB87b]. **kinetics** [BDS84, CSL85]. **Kinney** [Sch85a]. **Knot** [MF92]. **Kronecker** [Kåg86]. **Krylov** [BS90, CJ84, ESS86, GS92a, GK92b, Saa84, Saa89]. **Kutta** [DP89, GSBB87, Hig91, KR88, OT89, OZ92, Sha91, Zla81, vdHS91].

**Lagrange** [Gen82, RM91]. **Lagrangian** [DK87, IKK91, MO80, MO81, RW90]. **Laguerre** [KWF84]. **Lanczos** [Son89, CWL83]. **Lanczos-type** [Son89]. **Laplace** [BW89b, May85, PW80, SK85b, dKS82]. **Large** [BDG80, BS92, FR92, MLJN92, OS81, Toi87, BdL86, CM81, CJ86, CWL83, Fos90, GHP81, GMT86, Hea84, Ost87, Sal87, Str80, ZWS82]. **large-residual** [Sal87]. **Large-Scale** [FR92, GHP81]. **later** [Vel90]. **Laws** [Gil89, Qua90, BC89, CL86, LO87, RT91]. **Layer** [Cho80]. **leap** [AG80]. **leap-frog** [AG80]. **leapfrog** [SS85]. **Learning** [YL90]. **Least** [AMO92, Bjö84, BS80, CP92b, DB90, Eld84a, Eld84b, GS91a, HP91, MF92, Ng91, OR86, PR85, Sni84, Toi87, Var85, BI87a, BH88, BNP88, CH90a, Cro91, GHP81, GHN83, GKR85, GMT86, Han86, Hea82, Hea84, Kem87, LQ89, Man81, Ost87, Sal87, Var82, WRWD84, WS88, WH85]. **Least-Squares** [CP92b, BH88, GHN83, LQ89]. **leg** [WS84]. **Legendre** [AR91]. **Length** [Ves91, CK82]. **Level** [AE91, dv85]. **Levinson** [Cyb80]. **Life** [Tor90]. **lightly** [Add84]. **Like** [Tum92, Cha84b, Ste85, Swa87a]. **likelihood** [Bun87, Osb87]. **limit** [Swa87a]. **limited** [SS86b]. **Limiting** [HZ91, SKA86]. **Limits** [Wor91]. **Line** [EG92, Mul90b]. **Linear** [AMO92, AG92, Bjö84, BS92, CF88, DS84, ES86, Fre92, GS81, Gre91, HJS92, Han86, HP89, Lin86a, LNK91, MP92b, MS84b, Ng91, Rip92, SS86b, Ser92, Smi92, Wor91, Wri91, vD89, van92a, BT80, BI87a, BJ89, BBK84, BC83, Bud87, Cam85, CJ86, Cro91, Dax89, DH86, Duf84a, Duf84b, DR84, DNR87, ESS86, FM81, GJM87, GKL88, GS83, GHN83, GHN84, Hea82, Hea84, JD89, JB83, KWD85, KL88, MW90, MS84a, Man81, Mar86a, MLDR88, PR88, Saa84, SSS85, SS86a, Say80, SB89, SR86, Sho86, Son89, Ste81, Str86, Var83, VC89, WRWD84, Wom86, WH85, Yip86, ZWS82, dR82]. **linear-equation** [CJ86]. **lines** [Ber88, LBD91]. **Liouville** [Pai84]. **Local** [BB87a, Bis91, Gro87a, GK92a, VPL92, AF88, AC86, Cos87, FB84, Geo81, GHLN88, Joe89, KLM87]. **local-memory** [GHLN88]. **Localization** [NP86, GKL88]. **Localized** [Bad91]. **Locally** [Gay81, GK92b, Swa87c].

**Locating** [Ta'90a]. **location** [CC80, ESS82, Tyl88, Wat83b]. **loci** [BF81]. **Log** [O'S88a]. **Log-Density** [O'S88a]. **Log-Hazard** [O'S88a]. **Logical** [PLB90]. **long** [LK87]. **long-tailed** [LK87]. **longitudinal** [TP91]. **low** [SO85]. **lower** [Coc85].

**Machine** [YL90, AMOS87, ZJ91].

**Machines** [DIR92a]. **Maintaining** [Gea86].

**Manifold** [van92b]. **Manteuffel** [Say80].

**manufacturing** [Dut83]. **Many**

[App85, PLB90]. **Many-Body**

[App85, PLB90]. **Mapping**

[BG87, DE91a, PK84, PAF92, For84, SK85a].

**Mapping-Methods** [DE91a]. **Mappings**

[For80, MT84b, OR89, Pea91]. **maps**

[Gut83]. **Markov** [wEC90, HP84].

**Mathematical** [TB89, Cla85, McK84].

**Matrices**

[AOU87, Arb91, ADGR90, ADNR92, AE91, BV87b, DK90, DL92, Fre92, GT90, GL81, KK92a, KK92b, MO84, OS90, AH86, Bar86, BV87a, Bye88, wEC90, CWL83, EGL<sup>+</sup>87, FG86, GN86, GN88, Har89, HLPW86, LPP89, Mar86a, MS86, Par84, ST89].

**Matrix** [BGF91, CG90b, Dav81, Eld84b, GS89, GMSW84, HD92, Hig90, HS90, Kau83, KL91, KPC90, N'K91, O'L80, PS91, Rei90, SB80, Var86, War84, Bai88, Bye88, CM81, CV86, GO89, Hig86b, Liu88, Ost89, PW80, SW82, Sco84, Ste85, YMJ<sup>+</sup>89, ZWS86].

**Maximum** [Bun87, AW80, Osb87].

**Maxwell** [Coc85, Mon92]. **McBryan**

[Dec91]. **mean** [Gar82, Row88].

**Measurement** [Lee91]. **measurements**

[HN81, Jor87]. **measuring** [Bye88].

**Mechanics** [Löt84, MLJN92]. **Mechanisms**

[MR90]. **Media** [AEL92, Coc85, MW90].

**Median** [Fin88]. **medium** [Pot85, SS87].

**Meeting** [EGJ<sup>+</sup>89]. **members** [BdL86].

**Memory**

[BEM92, PAF92, EHHR88, GJM87, GR88, GHLN88, HR88, LC88, LC89, NP83].

**merging** [Liu86]. **Mesh**

[BB87a, Bv91, D'A91, Gro87a, GK92a, O'L84, RR92, Sim81, BBK84, BR85, Eri85, Gro80, KLM87, Swa87a]. **mesh-connected**

[BBK84, KLM87]. **Meshes**

[HC87, Joe86, KN80]. **Message**

[CL90, LC89, SNN87]. **Message-Passing**

[CL90, LC89]. **metaparabolic** [GJ82].

**Method**

[And92, ADNR92, AG92, AE91, BEM92, BH91a, BW89a, CW91, Cas91, CB90, Col82, CL81, EOY90, FR92, For80, FM91, GT90, GSS86, GW91, HSS92, HD92, IKK91, Ker88, Lar89, Luk85, Moo81, N'K91, NPV91, OS90, OT89, Pea91, Pug92, Rüd92, SF88, SP88, SB90, SP91, TA90b, Tum92, YK86, ZJ91, ZY92, Ach89, AF88, ABDP81, BDS87, Ber88, BK86, BC89, BdL86, BR85, BL87, Bue86, Bye88, CK83, CL86, CGM85a, CGM85b, DF82, DK85, DH82, Eil86, EY88, Fis90b, FJ86, For84, FB84, Gre85, GWJ84, Hac81, Hal86, HC83, HPW84, HM83, JB83, Kiw89, KLM87, LaV80, LBD91, LC89, Luk86, Mai86, MT84a, Mar86b, MS86, Mur81, Ost89, Pai84, Pet89, PW80, Puc89, Rei86, Ros85, Saa85, Sch84, SP86, SSG<sup>+</sup>82, SG80].

**method**

[UW87, Var82, Vd85, Wal88, WG83, Wat80, WS87, Wes82, Wes84, dv89, dKS82].

**Methods**

[AS90, Ada85, BH91a, BEPP92, BS92, BMR83, BHSO87, CP92a, CH87, Dav88, DB90, DE91a, DIR<sup>+</sup>92b, EG92, Fis90a, Fle86, Fra89, Fre92, GS92a, Geo91, GMSW84, GK92b, Hei91, JA84, JSS87, Kau83, MC90, MP92b, Mit92, Mon82, Mon92, Nas85, OZ92, Qua90, RST92, Saa89, Sal90, Sha91, Ta'90a, Tam92a, Tam92b, Thu90, ZBS92, vdHS91, van82, AH86, BRF83, BNP88, BW80, BF84, BB87b, Blu80, BDG80, BHW85, BS90, Bub88, Bun85, Cha84b, CJ84, CS85a, Den87, Duf84b, Eis81, Fis88, FO84, GHN83, GR85, GKR85, GMT86, GP88b, GO89, GMB88, Gut83, Hal81, HV87, Har89, HP84, HJS84,

Hea84, HL90, KR88, KP91, Kru89, Kui87, LR84, LP91, MN87, MLDR88, NP86, Ort88, Pet83a, Pet83b, PK89, RM91, Rei81, Saa84, Sch85b, ST89, Seg82]. **methods** [Sha83, SB85, SR86, SB87, SO85, Str80, Str84, VC89, YWB86, Zla81, dH84]. **metric** [Wat83b]. **MIMD** [SNN87]. **minimal** [SS86a]. **minimax** [MO80, NW85]. **minimization** [LM85]. **Minimizing** [GW91, MS85, Par92, CO83, YFI89]. **Minimum** [KK92a, Liu89, ST80, CV86, HJS84]. **Minimum-Phase** [KK92a]. **Minmax** [ETW92]. **Minres** [Luk85]. **miscible** [Pot85]. **Misclassification** [GJW86]. **Missing** [Vel90]. **Mixed** [AEL92, Gil89, Mon92, BA87, BW80, Pet83a, SK86, Wes84]. **Mixtures** [Kuo86]. **MMAE** [NW88]. **Mode** [KL88]. **Mode-dependent** [KL88]. **Model** [de 92, CGK86, Gar82, Ost89, Pot85]. **Modeling** [BW89b, Dut83, JT87]. **Models** [AEL92, Cho80, LS85, Bun87, BDS84, ESS82, FM81, JT87, Osb87, SR86]. **Modification** [Pug92, BT80, Dax83, Yip86]. **Modified** [Chi88, EHHR88, GSS86, HSS92, HT90, SE90, Zla81, BS83, Mel88, OS91a, RS87, SB87]. **modulus** [FM86b, FM86a]. **mollification** [Mur81]. **Moment** [Dev91]. **moments** [Dek83, Mel82]. **monitoring** [Bar86]. **Monotone** [CF91, MC89, Cos87, FB84]. **Monotonic** [PLB90]. **Monotonicity** [Hym83]. **Monte** [BI87b, Fis89, Fis90b, MW90, N'K91, NP86, SP86, SO85]. **Morrison** [Yip86]. **most** [BdL86]. **Motion** [Bic91, HB90, AMOS87, TP91]. **Moving** [CP92a, Gro87a, RM91, RR92, Gro80, KMM84, Mar86b]. **MP** [DH86]. **MR** [Hel83, Van83]. **MSAE** [NW88]. **Multi** [MW85, ABDP81, AW80, BW87, CK82, CS85c, dv85]. **multi-grade** [AW80]. **Multi-Grid** [MW85, ABDP81, CK82, CS85c]. **multi-level** [dv85]. **multi-response** [BW87]. **Multiblock** [CH87]. **multicomponent** [JTW89]. **Multidimensional** [FGS83, Asi85]. **multifacility** [CC80]. **multifrontal** [DR84]. **Multigrid** [BC86, BH91a, BC83, BMR83, BMxx, DIR92a, HC87, KP91, Mik91, Mul90a, PR92, SW92, Ta'90a, Tum92, de 92, BK86, Dec91, Den87, Hac81, Wes82]. **Multigrid-Like** [Tum92]. **Multilevel** [BB87a, Mit92, TCK91, TCK92]. **Multiple** [EGM84, GW91, SS81b, AC86, Gen82, Riv88]. **Multiplication** [dB80, Bai88]. **multiplicative** [FM86b, FM86a]. **multiplicity** [BD81]. **multiply** [GP88b]. **Multipole** [And92, ZJ91, CGR88]. **Multipoles** [And92]. **Multiprocessor** [BHSO87, CG90b, CL90, HP91, WP90, BL85, GR88, GHLN88, KF85, LC88, LPS87]. **Multiprocessors** [Bad91, BG88, JSS87, Sal90, EHHR88, HR88, HL90, LC89]. **multirate** [SA89]. **multistep** [SB89, TSD83, VC89]. **multitasking** [DH86]. **Multivariate** [JJ88, Cau83, Dek83, KWD85, Tyl88, Utr87]. **MUSCL** [Col85].

**NAPL** [For91]. **Navier** [Gro87b, Pet83a, Str84, ten88]. **NAXPERT** [SC88]. **near** [Kel83]. **nearly** [DK85, FG86, Ste81]. **Nested** [AE91, dB80]. **Network** [Bv91, ZP92, SBC91]. **Networks** [HI83, CS85c]. **Neumann** [PW80]. **neural** [SBC91]. **Newton** [BW87, BP90, BHW85, Cha84b, CJ84, DK85, Fle86, Fra89, Geo81, Gre85, GW91, Nas85, PS91, ST89, SSG+82, TE91, Tor90, ZP92]. **Newton-like** [Cha84b]. **next** [Vel90]. **Nine** [AE91]. **Nine-Point** [AE91]. **no** [BS87, Hel83, Van83]. **Nodal** [Hen86, MC90, TCK91]. **Noise** [YL90]. **Noisy** [BKK86, Utr81b]. **non** [RT91]. **non-strictly** [RT91]. **noncentral** [HR85]. **Nonclassical** [FS91]. **nondifferentiable** [YFI89]. **nonHermitian** [Ste85].

**Nonhomogeneous** [Dar92]. **Nonlinear** [AW84, BC86, BP90, CW91, Cel91, CL90, CP92b, DS84, GRMM92, N'K91, RST92, Toi87, Var85, WW90, ZP92, ZBS92, de 92, AG85, BMA86, BD81, BB87b, Blu80, BBS87, BDG80, BS90, CK82, DNR87, Fle81, GKR85, Gut83, HK86, HLS85, HP89, HC83, Kui87, LN89, Man82, MLDR88, MO80, MO81, Osb87, PL86, Sal87, SS85, Sch84, Sch85b, SW86, SGMS88, Var90, Wat80, WS87, WH87, WH85, YWBJ86, vd82]. **Nonlinearly** [CJ84]. **nonmonotone** [Kri85]. **Nonparametric** [O'S88b]. **Nonseladjoint** [Gre91]. **nonskewed** [Sho86]. **Nonstandard** [ST89]. **nonstiff** [HS85, Pet83b]. **Nonsymmetric** [BS92, DR85, van92a, ESS86, Saa84, SS86a, Say80, Son89]. **Norm** [DB90, Hig90, Str86]. **normal** [Bro86, Dek83, DH82, DJH80, Hel83, Hel89, Iye88, LR84, Ric80]. **Normalized** [FM91]. **norms** [OW85]. **nosed** [Ros85]. **Note** [AD84, BW89a, BBVD87, CG90a, GV87a, Bar86, Dec91, Liu87b, Mul90b, SW86, Yip86]. **nullity** [Kel83]. **Number** [Alt88, GL81, Por91, CR83, FM86b, FM86a, Hig86b, Nie84, Nie87, ZWS86]. **Numbers** [O'L80, PV86]. **Numerical** [AW80, AEL90, BF81, BRF83, CW91, Che83, CP86, CP89, Coc85, CP92b, CSL85, CR87c, Dav81, DE91a, Dem84, DLR91, DLR86, EGJ<sup>+</sup>89, FS91, FO84, For80, Gut83, Hea84, HR87, HR90, IIMPL85, IKK91, Kem87, Lin86b, Löt84, MR90, MMM84, MP92b, Mén83, NPV91, OR89, Par92, PL86, RD89, Sch91, Sch92, SK85a, SR86, Tam92a, Tam92b, Thu90, Tor90, Tre80a, Tre80b, WS83, Wor91, AG85, BICM88, BB87b, BC89, Bub88, Cam85, CMR86, CM87, Cyb80, Ehr86, FJ86, For84, Gea86, GMSW83, Hac81, HK86, HLS85, Han90, Hel83, HR85, HM83, Lau88, LO87, LR84, Mit87, Mur81, Pai84, Pot85, Rei81, Ric80, SBC91, SS85, SC88, Sch85a, Seg82, SAW85, Str80, SG80,

Var82, Var83, WG83, WS88, dKS82, van87]. **Numerically** [BBK84, Pea91].

**O** [Hel83]. **Object** [Cho92]. **Oblique** [Luk84]. **Odd** [ten88, Dt90]. **ODE** [BA87, BHW85, BBH89, CH87, GS83, Gup85, HS85, Pet82, Sha83, dH84]. **ODEs** [CJ86, Gea86, Ser85, Sha80, SB85]. **off** [Fin88]. **Oil** [Lan92, BF84]. **on-state** [PSdH<sup>+</sup>83]. **One** [BC92, CF91, Mul90a, SB90, Tam92a, WS84, de 92, BR85, De 89, GJ82, GLO81, LC87, Mar86b, Smo82, SK86, Swa87c]. **One-Dimensional** [Mul90a, de 92, BR85, GJ82, GLO81, LC87, Mar86b, Smo82, SK86, Swa87c]. **One-leg** [WS84]. **one-sided** [De 89]. **One-Stage** [Tam92a]. **onto** [SK85a]. **Open** [RS84]. **operations** [GP88a]. **Operator** [Hei91, Let92, Bue86]. **Operators** [CH91, JMPW92, BRI84, IIMPL85, Sco82]. **Optimal** [DS89, D'A91, Gay81, Gir87, Mit92, Sim89, Smi92, Utr81b, BICM88, BS89, Cau83, Cha88, ESS82, RS89, VG83]. **Optimization** [GMSW84, GN85b, ZP92, GMSW83, HPW84, LN89, MO80, MO81, NP86, PR88]. **Optimizing** [BG88, HL90]. **Order** [Bon87, Dav88, JMPW92, Let92, YK86, BA87, BAF86, Boi81, BdL86, BL87, Bub88, Bue86, HR87, Lin86a, LP91, MS84a, May85, Ser85, SB87, SO85, Str80, Swa87a, Tis89, Vd85, van86]. **Ordering** [KC90, Liu89, O'L84, OS90, Fis89, Ost87]. **Orderings** [LP89, EGL<sup>+</sup>87]. **Ordinary** [Ano89, EGJ<sup>+</sup>89, LNK91, Tam92a, Tam92b, AP81, BD81, Bue86, CM81, Pet83b, Tis89, VC89, WS84]. **Oriented** [Par92]. **Orthogonal** [AOU87, Bar90, Gau82, GN86, HI83, Luk83, MMO89, BBS87, FG86, HPW84, PR89, SSJ88]. **orthogonalization** [Cyb87]. **oscillating** [BMxx]. **oscillator** [IIMPL85]. **Oscillatory** [Can92, Add84]. **Osher** [van84]. **out-of-core**

[Duf84a, Liu87a]. **Outflow** [BT82]. **Overlap** [BW89a]. **overset** [Kop89]. **overwhelming** [Sch85a].

**Padé** [RRPP88]. **paging** [Liu87b]. **Paige** [OP91]. **Parabolic** [GS92a, SB90, VP92, AF88, BW80, Ber88, ES80, Hac81, HK86, LBD91]. **Parallel** [BEM92, Bis91, Bv91, BGF91, CS85c, CH87, CP92b, FR92, GV87b, GS92b, GH92, GS81, GK92b, HR88, HZ91, LZS91, LP89, Man91, MG92, O'L84, PAF92, PA92, Sch91, Tam92a, Tam92b, Tum92, VP92, Wom90, Wri91, Wri92, ZP92, ZBS92, ZJ91, vdHS91, BI87b, CKLA87, Dec91, DS87, Elm89, GJM87, GK88, GMB88, Hei88, JD89, Jor87, KR88, KG87, LPP89, LC88, LO87, Mel88, Mit87, Swe88]. **Parallelism** [Wor91]. **Parallelization** [BH91a]. **Parallelizing** [Ser92]. **parameter** [BK89, BW87, ESS82, RD89, Var82, Var90]. **parameter-dependent** [BK89]. **Parameterized** [BC86]. **Parameters** [EDRW91, GW91, IKK91]. **Parametric** [Par92]. **Part** [NPV91]. **Partial** [BEPP92, Gre91, MR92, RST92, VP92, Wor91, DF82, GN85a, GN87, GP88a, Gre82, GK88, KG87, MS84a, SC80, WRWD84, vd82]. **Partially** [Luk83, Lin86b]. **Particle** [Bic91, Mon82, CGR88, RM91]. **Particles** [Bic91, DM90a, VG83]. **Partitioning** [Bad91, Vav91, ZP92]. **Passing** [CL90, LC89, SNN87]. **Past** [Cho92, Che83]. **patched** [Kop89]. **Path** [HR90, Eil86, Kel83]. **PDE** [BW83]. **PDEs** [GK92b, KLM87, SC90]. **PECE** [Hig89]. **Penalty** [CH90b, JB83]. **Pencil** [BGF91]. **Pencils** [Kåg86]. **Penetration** [LMPS86, RS85]. **perfect** [AH86]. **Performance** [GK92b, van89, Jor87, KT87, Nie84]. **Periodic** [McD86, TA90b, VP92, Hac81, SGMS88]. **permanent** [BS87]. **Perturbation** [KPC90, AC86, AW84, HM83, Seg82, Smo82]. **perturbations** [Ach89, Geo81]. **perturbed** [AJ89, EL87, FM80, Mai86]. **Phase** [KK92a, NPV91, WW90, BDS84, For89, JTW89, MW90, Pot85]. **Phase-Change** [WW90]. **Phenomena** [WS83]. **Picard** [Ske89]. **Piecewise** [DG85, MC89, Rip92, Smo82, FB84]. **Pipelines** [MPL83, BDG80]. **Pitfalls** [Var83]. **Pivoting** [Bis91, GN85a, GN87, GP88a]. **Place** [Bri87, Tem91]. **Plane** [Dar92, VG83]. **plastic** [TP91]. **Plate** [MF92, SS91]. **Platzöder** [SW86]. **PLS** [WRWD84]. **PLTMGC** [BC86]. **Point** [AE91, CW91, KS91, MS84b, Moo81, WP90, Wri92, Ach89, AJ89, CK83, EY88, FO84, Lin86a, Pru86, RM91, Wat80, WS87]. **points** [AW84, BL87, Cha84b, KWF84, Kel83, RD89]. **Poiseuille** [Ach89]. **Poisson** [CR87b, CR87a, KP91, Knü86, MG92, Sch84, Swa87b, YWBJ86]. **Polar** [Gan90, HS90, KL91, Hig86a]. **polarisable** [Coc85]. **Polish** [Fin88]. **polygon** [DH82]. **Polygons** [BG87, Joe86, DJH80]. **polyhedral** [CO83]. **Polynomial** [AS90, AJS90, AMO92, EOVS90, FM80, Saa85, TE91]. **Polynomials** [Gau82, Rip92, SSJ88, SO85, dR82]. **Porous** [AEL92, Pot85]. **Porous-Media** [AEL92]. **Posed** [ES86, OS81, OR86, Han90, Var83]. **Positive** [AMO92, Bro86, CV86, FG86, Kiw89, Ruh80]. **Post** [SF88]. **Post-Processor** [SF88]. **Potential** [Gre90, YWBJ86]. **power** [Hel89]. **Practical** [Cel91, DP89, Eri85, GSBB87, PL86, Saa84, Saa85, Wes82]. **Preconditioned** [Ada85, DIR<sup>+</sup>92b, DM92, GK92b, KK92b, CJ84, Eis81]. **Preconditioner** [AS90, KK92a, Smi92, TCK91, Cha88, CS89]. **Preconditioners** [CJ92, DC92, TCK92, AG88, Cha91, Elm89, YMJ<sup>+</sup>89]. **Preconditioning** [AMO92, DM90b, EOVS90,

- JMPW92, Man91, Nas85, NOP85, vd82, van89, CMd84, CGM85a, CGM85b].
- preconditionings** [Saa85]. **prediction** [NP83]. **predictors** [LP91]. **Preface** [Ano89]. **Presence** [YL90]. **Preserving** [BP90, DG85, Hym83, RW90, BH91b]. **Pressure** [ten88, For89, van86].
- pressure-correction** [van86]. **Prime** [Tem92, Ott89]. **principle** [SKA86]. **prior** [Kem87]. **probabilistic** [Bun87].
- probabilities** [GJW86, Iye88]. **Probability** [EDRW91, Fos90]. **Problem** [BM90, GGS87, IJ90, LZS91, MLJN92, Rei90, War81, WS91, WP90, AP81, BICM88, CC80, CGK86, CM87, DS87, Fle81, Kat89, LPS87, Mur81, OW85, Pai84, PR88, PW80, RD89, SSG<sup>+</sup>82, TP91, Wat83b, WRWD84, vd82].
- Problems** [Bjö84, BW89a, BEPP92, CW92, CW91, CH91, CB90, DB90, DM90b, DE91b, DC92, Eld84a, Eld84b, ES86, EG92, FS91, GS91a, Kau83, KS91, Kri82, KC90, Löt84, MW85, Ng91, NPV91, OS81, O'L84, OR86, O'S91b, Sch91, Smi92, Ta'90a, TCK92, WW90, Wri92, Add84, AW84, AJ89, AF89, BK89, BRI84, BI87a, BH88, BNP88, BMA86, BJ89, BDS87, Boi81, BK86, BdL86, BC83, BMxx, BL85, BR85, BL87, CK82, CP86, CK83, CP89, DF82, Den87, EL87, EY88, FM80, FO84, GHP81, GHN83, GKR85, GMT86, Gro80, GWJ84, Hac81, Han90, HC83, Hea82, Hea84, HM83, Kiw89, KM80, Lin86a, LC84, Mai86, Man81, Mar86b, MN87, NW88, Ost87, PSdH<sup>+</sup>83, Pru86, RRPP88, SBC91, Sal87, SKA86, Sch86, Sch85b, SW82, Seg82, SK86, SS81b].
- problems** [Var83, WG83, Wat80, WS87, Wes84, dv89].
- problemsize** [PSdH<sup>+</sup>83]. **Procedure** [OS81, BW87, BS83, Ehr86, NW85, Tie83].
- procedures** [DLR86]. **Process** [Lan92, Dut83, JB85, JTW89, KA87, SAW85].
- Processes** [DP89, Kuo86, Web92, Bud87].
- Processing** [GV87b, O'L84, Hei88, LQ89].
- Processor** [Sch92, SF88, GJM87, GMB88, Jor87, KT87].
- Processors** [PAF92, Sim89, BBK84, Mit87, SSS85].
- Procrustes** [Luk84]. **producing** [RS89].
- Product** [Cup83, HLPW86]. **Products** [BV87b, VBH92, BV87a, Cyb87, SV89].
- profile** [Mar86a]. **Program** [App85, BC86, BDS84, Wat83a].
- Programming** [Bad91, BM90, HJS92, MP88, BMA86, BDG80, DNR87, Fle81, GO89, Kiw89, McK84]. **Programs** [AKHC<sup>+</sup>92]. **projected** [GO89, MO80, MO81]. **Projection** [ADNR92, BS92, BC89]. **projector** [HM88].
- Prony** [OS91a]. **Propagation** [Lar89, Wal91, HP89, SB87]. **Properties** [SS81a, AH86, AH87, Hei88, IIMPL85, SU88, SA89]. **proportional** [GP88a]. **prototype** [SC88]. **pseudo** [Cha84b, Eil86].
- pseudo-arclength** [Cha84b].
- pseudo-spectral** [Eil86]. **pseudoparabolic** [GJ82]. **pseudorandom** [Nie84, Nie87].
- Pseudospectral** [DM90b]. **PSMG** [FM91].
- pulse** [LC87]. **pulse-spectrum** [LC87].
- Purpose** [BW83].
- Quadratic** [Dav81, KPC90, MC89, Bro86, GJW86, GO89, Har89, Hel83, Kiw89, LR84, Ric80, SW82].
- Quadrature** [CR87c, KS83, Tor90, KWF84].
- Quantile** [Por91, ESS82, Tie83]. **quantized** [Sni84].
- Quasi** [BP90, Fle86, BHW85, Geo81, Gre85, NP86].
- quasi-Choleski** [Gre85]. **quasi-Monte** [NP86].
- Quasi-Newton** [BP90, Fle86, BHW85, Geo81].
- quasi-quasi-Newton** [Gre85].
- Quasiconformal** [MT84b]. **Queuing** [Kau83].
- radial** [DLR86, Smo82]. **Radiation** [HB85, Kri82]. **Radiative** [N'K91].
- radio** [Coc85]. **Random** [Alt88, AOU87, Dev91, EDRW91, SP88,



YL90, Atk82, Bro86, CL86, FM86b, FM86a, Hal81, Hal86, Hel83, LaV80, Ric80, Sho86].

**Rank** [CH92, Ng91, Ste84, BH91b, CH90a, Han90, Man81, Yip86]. **rank-** [Yip86].

**Rank-Deficiency** [Ng91]. **rank-revealing** [BH91b]. **ranked** [Mel82]. **Rapid** [Rei90, KT87]. **rapidly** [Le85]. **rate** [BDS84, Puc89, dv85]. **Rates** [FM91]. **ratio** [LR84]. **Rational** [DG85, Kri85, PV86, Rei86]. **Rayleigh** [BCJ+88, GMMS86, Sco82]. **Reacting** [MR90, CMR86]. **reaction** [CSL85, Eil86, Hal81, MLDR88, Rei81, SP86]. **reaction-diffusion** [Eil86, Hal81, Rei81]. **real** [WG83]. **reasonable** [Swa87a]. **reconciliation** [Gre86]. **reconfigurable** [KB84]. **reconstruction** [Gir87, Kru89]. **Recovery** [Lan92, BF84]. **rectangle** [CR87a, CR87b, SK85a]. **rectangles** [Sch85b]. **rectangularly** [PK89]. **Recurrence** [WH87, vD89]. **Recursive** [AE91, HP91, LQ89, Tie83]. **Red** [KC90]. **Red/Black** [KC90]. **Reduced** [EG92, Pet89]. **Reducing** [Kåg86].

**Reduction** [AS90, Dub91, MMO89, SNN87, GN86, Mar86a, Ost87, PSdH+83, Swa87b, Swe88].

**Refinement** [BB87a, BEPP92, Gro87a, GK92a, GK92b, VPL92, AF88, BR85, Gro80, Swa87a]. **refining** [Jar86]. **reflection** [SS86b]. **Reformulation** [FS91]. **refraction** [KM80].

**Region** [CH90b, MS83, ST89, SK85a, YFI89].

**Regions** [DE91a, HT90, MG92, CS85b, For84, Iye88, May85]. **register** [Nie87].

**Regrading** [KN82]. **Regression** [BD84, Cel91, Por91, BBS87, NW85, NW88, Riv88, SR86, WRWD84]. **Regularization** [Eld84a, Eld84b, HSS92, OS81, TA90b]. **Regularized** [O'S91b, WS91, Gir87]. **regulator** [BRI84]. **rejection** [Fis90b]. **relation** [van84]. **Relations** [vD89]. **Relative** [O'S88b, Var90]. **Relaxation** [DB90, NSV83, KLM87].

**Relaxation-Based** [NSV83]. **relaxations** [Mit87]. **relaxed** [Cha91]. **Reliability** [Dem84, LS85, dH84]. **remapping** [DK87].

**Remes** [Chi88]. **Reordering** [PA92, LPP89, Liu88]. **Representation** [BV87b, Pug92, BV87a, SV89]. **requires** [BS87]. **reservoir** [TB89]. **residual** [SS86a, Sal87]. **Resolution** [Kru89, Coc85]. **resource** [AW80]. **response** [BW87, SS87].

**Results** [CP92b, Tyl88]. **Revealing** [CH92, BH91b, CH90a]. **Reversal** [Ves91]. **reweighted** [WS88]. **rezoning** [DK87].

**RGSVD** [Kåg86]. **Riccati** [Van83, BRI84, Van81]. **Rice** [Hel83].

**Richardson** [dR82]. **Riemann** [Dar92, JTW89, TP91]. **Rigid** [Löt84]. **Risk** [O'S88b]. **Ritz** [Sco82]. **Roberts** [BT80].

**Robust** [BH91a, Blu80, BD84, Utr81a, SR86].

**Robustness** [Wit89]. **Roe** [van84]. **Root** [GS91a, KF85]. **rootfinder** [Kri85]. **roots** [BF81, DK85, SSJ88]. **Rosseland** [N'K91].

**Rotating** [RS84, Lin86b]. **Rotation** [GS91a, Luk83, Luk86]. **Rotations** [Luk84, BI87a, Liu88]. **round** [Ros85].

**round-nosed** [Ros85]. **Row** [BS92, Liu86, Ost87]. **row-ordering** [Ost87].

**Rules** [ES88, HJS92, Tor90]. **Runge** [DP89, GSBB87, Hig91, KR88, OT89, OZ92, Sha91, Zla81, vdHS91]. **Runge-Kutta** [Zla81]. **Running** [Bad91].

**S** [Hel83]. **Sample** [AKHC+92, BdL86]. **samples** [Sni84]. **Sampling** [ES88, Cau83, FJ86, MT84a]. **Saunders** [OP91]. **Scalar** [GGL+88, BC89, CL86, Gro80, SP86]. **Scale** [FR92, OS81, Toi87, ESS82, GHP81, GMT86, Riv88]. **Scaled** [BI87a, Wor90]. **Scales** [Str91]. **scaling** [DR86, ST89]. **Scatter** [LS88, Tyl88]. **Scattered** [Rip92, DLR86]. **Scattering** [BKK86, CM87, SKA86]. **scene** [Par84]. **Scheme**

[Cho92, Dt90, Gil89, Ng91, Ser92, ten88, AG80, BAF86, Dav87, KMM84, Liu87a, LO87, PR86, SS87, van86, Col85]. **Schemes** [AEL92, DM92, DE91b, Hen86, O'L84, VPL92, Asc89, BC89, HPW84, Lin86a, Liu86, MS84a, Pru86, SS85, Ser85, Swa87c, van84]. **Schmidt** [JP91]. **Schrödinger** [IIMPL85, Smo82, WH87]. **Schur** [BGF91, Elm89, Ste85]. **Schwarz** [Tre80a, Ehr86, HT90, Tre80b, Wei92]. **Sci** [Hel83, Van83]. **Scientific** [Bad91, GV87b, SNN87]. **Scope** [GSS86]. **Scores** [GW91]. **Search** [YL90, NP86]. **Second** [Dav88, JMPW92, Let92, AH86, BAF86, BB87b, Ser85, Str80, van86, GV87b]. **Second-Order** [Dav88, JMPW92, Let92, BAF86, Ser85]. **second-order-accurate** [van86]. **Section** [Ano89, GS89]. **sections** [VG83]. **Seidel** [Mul90b]. **seismograms** [SS86b]. **Selection** [MF92, ESS82, NW85, Pet83b, Ren87, Tis89]. **Self** [CR87c, Tem91]. **Self-Sorting** [Tem91]. **Self-Validating** [CR87c]. **Semi** [RW90, AH87]. **semi-implicit** [AH87]. **Semi-Lagrangian** [RW90]. **Semicoarsening** [DIR92a, SW92]. **Semiconductor** [BW83, FRB83, de 92, BRF83, PSdH<sup>+</sup>83]. **semidefinite** [Kiw89]. **semidiscrete** [WH87]. **Sensitivity** [Fis90b, O'S91b]. **separable** [OW85]. **separably** [Wat83a]. **Sequence** [Dev91]. **sequences** [Gen82]. **Sequential** [GO89, CP86, RS89]. **serial** [Elm89, Har89]. **Series** [CB90, McD86, AG85, ESS82, Hel89, JT87, NP83, Smo82]. **Set** [MS85, PAF92, CR83]. **sets** [CM81, DR84, DNR87]. **settling** [Sch85a]. **several** [Add84, FG86, PT83]. **shallow** [Bud87]. **Shape** [DG85, RW90, SG80]. **Shape-Preserving** [RW90]. **shaped** [SK85a]. **Shared** [BEM92]. **Shared-Memory** [BEM92]. **sheet** [Puc89]. **shell** [KP91, Man82]. **Sherman** [Yip86]. **shift** [Nie87]. **shifted** [Ske89]. **Shock** [MR90, CMR86, SSG<sup>+</sup>82]. **Shocks** [MPL83]. **shooting** [Mai86, dH84]. **Should** [BC92]. **SIAM** [Hel83, Van83]. **sided** [De 89]. **Sign** [KL91, Row88]. **signal** [LQ89]. **signal-processing** [LQ89]. **significant** [BdL86]. **silicon** [Dut83]. **SIMD** [DIR92a]. **Simple** [Sho86, BC89, Cha84b, CL86, SS87]. **Simplified** [Dav88, Dav87, KMM84]. **Simulation** [App85, CGR86, FRB83, HSST92, Löt84, NSV83, WS83, Web92, Atk82, BRF83, BF84, MW90, SAW85, TB89]. **Simulations** [GH92, Hag91, CGR88, Hei88]. **simultaneous** [FG86]. **single** [HS85, Pot85, Wat83b]. **Singular** [Cup83, DK90, Don83, Kåg86, PK84, AW84, BL85, Cam85, Cha84a, CH90a, wEC90, CWL83, De 89, DK85, GJ82, Han90, HN81, HV87, Har89, HLPW86, HM83, Kel83, Pai86, Say80, Sch86, Seg82, Ste81]. **singular-value** [BL85]. **Singularities** [Ta'90a, BR85]. **singularly** [AJ89, EL87, FM80, Mai86]. **singularly-perturbed** [FM80]. **Size** [JJ88]. **sizes** [Var90]. **slender** [SG80]. **Slightly** [Fis90a, Che83]. **small** [Fis88]. **Smooth** [KN82, ZY92]. **Smoothed** [Bic91]. **Smoother** [WS86]. **Smoothing** [AJS90, GW91, McD86, MU88, SU90, TA90b, Utr81b, Wah81, Wit89, KA87, SU88, Utr87, Wah82]. **Smoothly** [van92a]. **Software** [BW83, Dem84, LS85, OP88, Par84, SC88, ZWS86]. **solidification** [SAW85]. **Soliton** [CB90]. **Solution** [AKHC<sup>+</sup>92, AG92, CH87, Dav81, DMM90, EGJ<sup>+</sup>89, FS91, FR92, FM81, GS92a, GHP81, GHN84, HSST92, LNK91, MC90, MG92, MW85, N'K91, Ng91, PA92, Rei90, Sch91, Sch92, Smi92, Str86, Tam92a, Tam92b, Tum92, WW90, Wor91, van92a, AG85, BI87a, BH88, BB87b, BBK84, BC83, BL85, Cam85, CP89, CM87, Dax89, DR84, DNR87, EY88, GS83, Gea86, GKR85, Hac81, HLS85, HS85, HR88, HM83, KP91, Kui87, Man82, May85, Mit87, Mur81, PL86, SBC91, Sch84,

Sch85b, Sha80, Str80, Var83, VG83, vd82].  
**Solutions** [DM90b, TW92, WS91, AW80, BR84, BD81, CH90a, CP86, GJ82, HK86, Han90, Lin86b, MMM84, Pru86, SGMS88, Smo82, SK86, SS81b]. **Solve** [Dar92].  
**Solver** [BW89b, BBH89, CP92b, WP90, BA87, CR87a, CR87b, JTW89, LC88, Son89, YWBJ86]. **Solvers** [GS81, CS85b, CJ86, HL90, KT87, Tis89, YMJ<sup>+</sup>89]. **Solving** [AMOS87, Bv91, BP90, Can92, CB90, CL90, GRMM92, GS91a, IJ90, JA84, Joh87, KM80, MS84b, MR92, SSS85, Sal90, Sch86, SW82, SP88, VP92, Wat80, WS87, ZBS92, Blu80, BC89, BHW85, Bun85, CC80, Cha84a, CS85a, CMd84, Duf84a, Duf84b, EHHR88, ESS86, GHN83, GR85, Gut83, HC83, JD89, KB84, KLM87, LC89, LC84, Pet83b, PK89, Saa84, SS86a, Sal87, Swa87b, Van81, Van83, WG83, Yip86, ZWS82]. **Some** [CH92, DE91a, DE91b, Hea82, Kea83, LS85, O'S91b, Rei86, Ser85, Tyl88, Boi81, GHN83, GMT86, HP84, KT87, Saa84, SS81b, Wes84, van82].  
**Sonic** [Roe92]. **sophisticated** [OP88]. **SOR** [AJ86, Ehr86]. **Sorting** [Tem91]. **Sound** [HB85, SS87]. **Space** [NPV91, SB90, LBD91, MU88, Tie83].  
**space-efficient** [Tie83]. **spaced** [JT87].  
**Spanning** [HJ89, HJS84]. **Sparse** [ADGR90, ADNR92, AEL90, Can92, GS89, GHLN88, GP88a, GS92b, GMSW84, GRMM92, GL81, HPW84, HZ91, LS88, MLJN92, Ng91, OS90, PA92, Sal90, BS87, BR90, Bar86, CM81, Duf84a, Duf84b, DNR87, ESS81, EGL<sup>+</sup>87, GHP81, GHN83, GHN84, GN85a, GN86, GN87, GN88, GLN88, Hea82, Hea84, LPP89, Liu86, Liu87a, Liu87b, Liu88, Mar86a, MS86, Ost87, Ost89, Par84, YMJ<sup>+</sup>89, ZWS86, War84].  
**Sparsity** [BP90]. **Spatial** [SB90]. **Special** [Ano89, Boi91, GS89, MP92b]. **specification** [Kem87]. **Specified** [Luk83]. **Spectral** [Fis88, GLO81, HD92, Hei91, Qua90, RST92, Die86, Eil86, IIMPL85, PK89]. **Spectrum** [KK92b, LC87]. **speed** [Bai88, SS87].  
**Speedup** [Wor90]. **Sphere** [Wah81, Die86, Wah82]. **Spherical** [SC90, KP91, VG83]. **Spline** [BC92, FGS83, Utr81b, Wah81, Wah82, Web92, BRI84, KA87, Utr87, Var82].  
**Splines** [AJS90, CGR86, McC90, MF92, O'S88b, SU90, SS91, Utr81a, VBH92, Cos87, Die86, FM80, Ren87, SU88]. **split** [VC89].  
**Splitting** [NOP85, Ske89, Vd85]. **Splittings** [Wei92]. **Square** [GS91a, Knü86, AH86, CGK86, Sch84].  
**Squares** [AMO92, Bjö84, CP92b, Eld84a, Eld84b, GS91a, HP91, MF92, Ng91, OR86, PR85, Toi87, Var85, BI87a, BH88, BNP88, CH90a, Cro91, GHP81, GHN83, GKR85, GMT86, Han86, Hea82, Hea84, LQ89, Man81, Ost87, Sal87, Sni84, Var82, WRWD84, WS88, WH85]. **SSOR** [AG88].  
**Stability** [BD81, BS91, Bun85, CP92a, DE91b, JP91, OT89, RR92, SA89, Thu86, Thu90, AH86, AH87, Bar86, Cyb80, Pet83a, Yip86].  
**Stabilized** [Hei91, dv89]. **Stable** [GO82, SGMS88, Wri92, BBS87, BBK84, Bye88, CC80, Web84]. **Stage** [Tam92a, Tam92b]. **standard** [Row88].  
**State** [GH92, MWM87, PSdH<sup>+</sup>83]. **States** [EGM84]. **Stationary** [de 92, HP84, NP83].  
**Statist** [Hel83, Van83]. **Statistic** [Bon87]. **statistical** [Hei88, MWM87, Nie87]. **statistics** [Fle81, OP88]. **Steady** [EGM84, GH92, SSG<sup>+</sup>82, BDS87, MWM87, Mul90b, SS81b]. **Steady-State** [GH92, MWM87]. **Stefan** [NPV91]. **Step** [Ada85, CH90b, MS83, Nie84, Riv88].  
**Stepping** [Wom90]. **Steps** [Gay81, Geo81]. **stepsize** [LP91, SB89]. **Stieltjes** [Tor90].  
**Stiff** [DE91b, AF89, BHW85, BL87, CJ86, CK83, FO84, Gup85, HS85, Pet83b, TSD83, VC89, WS84, Wat83a]. **Stiffness** [Sha91].  
**Stochastic** [Bud87, Lan92, Web92, Fis89, KA87].  
**Stokes** [Gro87b, Pet83a, PK89, Str84, ten88].

**storage**

[BS87, GHP81, GR85, Mer85, SV89].

**storage-efficient** [SV89]. **strategies**[KF85]. **Strategy** [MR92, Tis89, dH84].**Stratification** [JJ88]. **stratified** [Cau83].**streamfunction** [GP88b].**streamfunction-vorticity** [GP88b]. **Street**[SS81a]. **Strengthened** [VE92]. **strictly**[RT91]. **strongly** [ABDP81]. **Structural**[Bar90, HPW84]. **Structure**

[BH91b, Kåg86, RST92, Cla85, CMR86, GLN88, Kat89, TB89].

**Structure-preserving** [BH91b].**Structured** [AKHC<sup>+</sup>92, Ves91].**Structures** [Ber86, MI91, ESS81].**structuring** [MWM87]. **Studies**[SS85, Eil86]. **Study** [IKK91, MR90, BC89, Che83, CSL85, Mén83, Puc89, Rei81].**Sturm** [Pai84]. **Subcube** [MR92]. **subject**[Dax89]. **subset** [MU88]. **Subsets** [Rip92].**Subspace** [Saa89, CJ84, ESS86, Saa84].**Subspaces** [Kåg86]. **substitute** [Vel90].**Substructured** [OT89]. **subtraction**[TW80]. **Subtree** [MR92].**Subtree-Subcube** [MR92]. **suitable**[Mel88]. **sums** [Ruh80]. **Supercomputers**[GS89, Saa89]. **Superconvergence** [MC90].**supersonic** [SSG<sup>+</sup>82]. **surface**[BdL86, DLR86, SS87]. **Surfaces** [SP90].**Survey** [AKHC<sup>+</sup>92, McK84]. **sustainable**[AW80]. **SVD** [HSS92]. **Symbolic**[GN87, Ost87]. **Symmetric**

[Arb91, DR85, Fre92, GT90, IJ90, LZS91, MI91, Ott89, Wal91, Asc89, BL85, CV86, DS87, ESS81, FG86, Iye88, LPS87, MT84a, MS86, Mul90b, SW82, Sco84, WG83].

**symmetric-definite** [SW82]. **Symmetries**[Bri87]. **Symposium** [War84]. **System**[Bv91, GS81, O'S91b, WW90, AG85, CSL85, RT91, SC88, Yip86]. **Systems**

[AMO92, AG92, BC86, Boi91, BS92, CF88, CJ92, CL90, DMM90, FR92, Fre92, GRMM92, IKK91, LNK91, Qua90, Sal90, Thu90, Wri91, ZBS92, van92a, AF88, Blu80,

BBK84, BHW85, BS90, Bun85, Cam85, Cha84a, CS85a, CJ86, Cha88, wEC90, CP89, Cyb80, Duf84a, Duf84b, EHHR88, ESS86, FO84, FM81, GHN84, GR85, GN85a, Gus88, HR88, JD89, Joh87, KB84, KF85, LC89, LO87, Mel88, Pan88, Pet83b, Saa84, SS86a, Say80, Ser85, SW86, Son89, Ste81, Str86, TSD83, Wat83a, ZWS82, dR82]. **Systolic** [ES86, GS91a, HI83, LQ86, BI87a, Sch86].**tables** [PT83]. **tailed** [LK87]. **Target**[Luk83]. **Taylor** [GMMS86]. **technical**

[BF81, BRI84, Jar86, LC87, Mel88, Web84].

**Techniques** [BB87a, KB84, Kea83, NOP85,

RR92, CK82, Cha84a, GK88, KG87].

**tension** [FM80, Ren87]. **Tensor** [SU90].**termination** [LN89]. **terms** [Str80, Var90].**test** [BMA86, BJ89, Gro80, Nie84]. **testing**[Fle81]. **Tests** [MS85]. **Tetrahedral**[Bun80]. **Their** [RR92, KG87]. **Theodorsen**[Gut83]. **theorem** [RS87]. **Theoretical**[CMR86, CP92b, Wes82, Bro91]. **Theory**[JMPW92, MI91]. **Theta** [SP91]. **thick**[KP91]. **Thin** [MF92, Mik91, SS91].**Thin-Plate** [SS91]. **Three**

[CP92a, DC92, Fis90a, HSST92, Joe89, Le85,

Let92, Mon92, Vav91, CR83, CM87, Den87,

Eri85, Kui87, Lin86a]. **Three-Dimensional**

[DC92, Fis90a, HSST92, Let92, Joe89, CM87,

Den87, Eri85, Kui87]. **three-point** [Lin86a].**tidal** [SK85b]. **Time**

[ETW92, Lan92, Löt84, McD86, Mon92,

Sch92, Shu88, Swa87c, VP92, Wom90,

Wor90, AG85, Cam85, CM87, ESS82, GP88a,

GO82, Gus88, Hac81, Hel89, JT87, LBD91,

LC87, Mar86a, NP83, Sch85a, Ser85, VV88].

**Time-Dependent**

[Löt84, Mon92, Sch92, Swa87c, Gus88, LC87].

**time-invariant** [VV88]. **Time-Periodic**[VP92, Hac81]. **Time-Stepping** [Wom90].**time-varying** [Ser85]. **Timing** [PLB90].**Toeplitz** [Arb91, Bun85, Cha88, CS89,

Cyb80, CV86, Cyb87, Eld84b, GS81, KK92a,

KK92b, Lau88]. **tomography**

[Gir87, Kru89]. **tool** [Asi85]. **topological** [BS89, Tan88]. **Tori** [DLR91, DL92]. **Total** [Shu88, BC89, OW85]. **Total-Variation-Diminishing** [Shu88]. **tour** [Asi85]. **towel** [SK85a]. **towel-shaped** [SK85a]. **trace** [BF81]. **tracing** [Geo81]. **Tracked** [GGL<sup>+</sup>88]. **Tracking** [DIR<sup>+</sup>92b, Buk88, GMMS86, Mar86b, RT91, SSG<sup>+</sup>82]. **training** [SBC91]. **Trajectories** [SP90]. **Transfer** [N'K91]. **transfinite** [Eri85]. **Transform** [GS91b, Str91, Fra90, Gut83, Ott89]. **Transformation** [D'A91, HT90, FG86, Tre80a, Tre80b]. **transformations** [Gea88, GN86, Joe89, Liu86, Row88, SV89, Sho86, Wal88]. **transformed** [Row88]. **Transforms** [Bun86, Tem91, LK87, dKS82]. **Transient** [GH92, BDS87]. **Transonic** [EGM84, Fis88]. **Transport** [RW90]. **Transputers** [Bv91]. **traveling** [HK86]. **Treatment** [Hei91, Mik91, BMxx]. **treatments** [GP88b]. **tree** [AMOS87, HJS84, Liu88]. **Trees** [EDRW91, HJ89]. **Triangle** [DS89]. **Triangular** [Bv91, D'A91, Eld84b, Joe86, PA92, Sal90, VPL92, Bar86, CKLA87, EHHR88, GN86, Har89, HR88, LC88, LC89]. **Triangulation** [ETW92]. **Triangulations** [Let92, Rip92, Joe89]. **Tridiagonal** [Boi91, GT90, IJ90, LZS91, Hig86b, HL90, Joh87, KB84, LPS87]. **tridiagonals** [Mer85]. **Trummer** [GGS87]. **Truncated** [Han90, HSS92, Nas85, ZP92, CH90a]. **Truncated-Newton** [Nas85]. **Trust** [CH90b, MS83, ST89, YFI89]. **tube** [RS85]. **Tubular** [SP90]. **tunneling** [LM85]. **turning** [AW84, BL87, Cha84b]. **TVD** [Dav87]. **Twist** [dB80]. **Two** [AE91, BW83, CW91, Dt90, Den87, KF85, KC90, MS84b, NPV91, Sim81, Tam92b, WP90, Wri92, AG80, Ach89, AF88, AJ89, BS89, BR85, Buk88, CS85b, CK83, EY88, FO84, For89, HLPW86, JTW89, LC84, MW90, Pot85, Pru86, RD89, Wat80, WS87, ZWS82]. **Two-Color** [KC90]. **two-component** [Pot85]. **Two-Dimensional** [BW83, Dt90, Sim81, AG80, AF88, BR85, Buk88, CS85b, LC84, Pot85]. **Two-Level** [AE91]. **two-parameter** [RD89]. **Two-Phase** [NPV91, For89, JTW89, MW90]. **Two-Point** [CW91, MS84b, WP90, Wri92, Ach89, AJ89, CK83, EY88, FO84, Pru86, Wat80, WS87]. **Two-Stage** [Tam92b]. **Type** [Dav88, Fre92, Gil89, Sha83, Ros85, Son89]. **Type-insensitive** [Sha83]. **Unbiased** [SO85]. **Unbounded** [SC90]. **Unconventional** [FR92]. **underdetermined** [GHN84]. **Underflow** [Dem84]. **undersized** [Sch86]. **unequally** [JT87]. **Unflanged** [HB85]. **Unification** [LS85]. **Uniform** [Gro87a, GK92b]. **uniformity** [Nie84]. **unimodal** [MT84a]. **uniqueness** [Tyl88]. **unit** [Sch84]. **unknown** [Tie83]. **unknowns** [Str86]. **unstable** [Bye88, SS85, SK86]. **Unsteady** [Cho92]. **unsymmetric** [Duf84a, DR84, EGL<sup>+</sup>87]. **Update** [BP90]. **Updating** [Bjö84]. **upon** [RR92]. **upper** [GN86]. **upwind** [BAF86, Mul90b, van84]. **upwind-differencing** [van84]. **Use** [ADGR90, Bar90, BC92, MI91, PK84, Say80, CM81, CJ86, DNR87, GJM87, Mul90b, Saa84, Saa85]. **Using** [BW83, DM90a, HP91, Hig91, NOP85, O'S88b, SW90, Utr81b, Ach89, AH86, BBK84, Cyb87, DH86, Eri85, Fis90b, GHP81, GN86, HPW84, Kri85, LaV80, SC80, Wal88, Wat83b, YWBJ86]. **Utilities** [EDRW91]. **Validating** [CR87c]. **Validation** [O'S88b, SU90, Utr87]. **Value** [CW91, Cup83, DE91b, FS91, VP92, WP90, Wri92, Ach89, BA87, BK89, BL85, BL87, CH90a, CK83, CP89, DF82, De 89, EL87, EY88, FM80, FO84, GKR85, Han90, HN81,

HV87, Har89, HLPW86, Lin86a, Mai86, MN87, Pai86, Pru86, RRPP88, Say80, Sch86, SK86, Wat80, WS87, vd82]. **Values** [DK90, Don83, CWL83]. **Variable** [BBH89, CF91, LP91, SB90, Str91, KM80, Sho86]. **Variable-Coefficient** [BBH89]. **Variables** [Dev91, Atk82, Bro86, Hel83, LR84, Mel82, NW85, Ric80]. **Variances** [FGR92]. **Variant** [BD84, van82, van92a, Swe88]. **variate** [Sho86]. **variates** [Fis89, RS87, UW87]. **Variation** [CGR86, Shu88, BC89]. **Variational** [Cas91, Wes84]. **various** [Gut83]. **varying** [Cam85, Ser85]. **Vector** [MMO89, Sim89, WP90, De 89, KT87, SK85b, Swe88]. **Vector-Multiprocessor** [WP90]. **Vectorizable** [van82]. **Vectorization** [Dt90, vD89]. **vectorizing** [AG88]. **vectors** [CWL83]. **ventricular** [Cup84]. **Verification** [Sim81]. **Version** [BEM92, RS87]. **versions** [HM88]. **Versus** [DR85]. **vertical** [SG80]. **via** [BR90, Dav87, GW91, N'K91, Ost89]. **viewing** [Asi85]. **virtual** [AMOS87]. **viscosity** [Dav87]. **Viscous** [Fis90a, Hag91, Che83, Pet89, RS85, van86]. **VODE** [BBH89]. **Volterra** [BB87b, HLS85]. **Volume** [For91]. **Vortex** [Cho80, CL81, Fis90a, Moo81, SS81a, Puc89]. **Vortex-In-Cell** [CL81]. **Vortices** [SS81a]. **Vorticity** [Wal91, GP88b, Hal86].

**waiting** [Sch85a]. **waiting-time** [Sch85a]. **Walk** [SP88]. **water** [Bud87]. **Wave** [Kri82, Wal91, Bud87, HK86, HP89, HC83, SB87]. **Waveform** [Ske89]. **Waves** [BCJ+88, GGL+88, MR90, RS84, BR84, CMR86, CM87]. **wedges** [Ros85]. **weighted** [BH88, Gar82]. **Well** [AEL92, CF88]. **Well-Conditioned** [AEL92, CF88]. **Which** [BC92]. **Wise** [Alt88]. **within** [BdL86]. **without** [And92, AW84, Mer85, SW82]. **Woodbury** [Yip86]. **Work** [Mon82]. **Worst** [FGR92]. **Worst-Case** [FGR92]. **WY**

[BV87b].

**X** [DH86]. **X-MP-4** [DH86].**zero** [Le85]. **Zeros** [Bar90].

## References

<b>Alcouffe:1981:MGM</b>
--------------------------

[ABDP81] R. E. Alcouffe, Achi Brandt, J. E. Dendy, Jr., and J. W. Painter. The multi-grid method for the diffusion equation with strongly discontinuous coefficients. *SIAM Journal on Scientific and Statistical Computing*, 2(4):430–454, December 1981. CODEN SIJCD4. ISSN 0196-5204.

<b>Allgower:1986:CLP</b>
--------------------------

[AC86] E. L. Allgower and C. S. Chien. Continuation and local perturbation for multiple bifurcations. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1265–1281, October 1986. CODEN SIJCD4. ISSN 0196-5204.

<b>Ache:1989:CEP</b>
----------------------

[Ach89] Gerardo A. Ache. Computation of the eigenvalues for perturbations of Poiseuille flow using a two-point boundary value method. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1097–1112, November 1989. CODEN SIJCD4. ISSN 0196-5204.

- Aref:1984:NFD**
- [AD84] H. Aref and P. K. Daripa. Note on finite difference approximations to Burgers' equation. *SIAM Journal on Scientific and Statistical Computing*, 5(4):856–864, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- Adams:1985:SPC**
- [Ada85] Loyce Adams.  $m$ -step preconditioned conjugate gradient methods. *SIAM Journal on Scientific and Statistical Computing*, 6(2):452–463, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- Addison:1984:CSF**
- [Add84] C. A. Addison. A comparison of several formulas on lightly damped, oscillatory problems. *SIAM Journal on Scientific and Statistical Computing*, 5(4):920–936, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- Arioli:1990:UAC**
- [ADGR90] Mario Arioli, Iain S. Duff, Nicholas I. M. Gould, and John K. Reid. Use of the  $P^4$  and  $P^5$  algorithms for in-core factorization of sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 11(5):913–927, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- Arioli:1992:BPM**
- [ADNR92] Mario Arioli, Iain Duff, Joseph Noailles, and Daniel Ruiz. A block projection method for sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 13(1):47–70, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- Andersson:1987:ACI**
- [AE87] Lars-Erik Andersson and Tommy Elfving. An algorithm for constrained interpolation. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1012–1025, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- Axelsson:1991:NRT**
- [AE91] Owe Axelsson and Victor Eijkhout. The nested recursive two-level factorization method for nine-point difference matrices. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1373–1400, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- Ashcraft:1990:FAD**
- [AEL90] Cleve Ashcraft, Stanley C. Eisenstat, and Joseph W. H. Liu. A fan-in algorithm for distributed sparse numerical factorization. *SIAM Journal on Scientific and Statistical Computing*, 11(3):593–599, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- Allen:1992:WCI**
- [AEL92] Myron B. Allen, Richard E. Ewing, and Peng Lu. Well-conditioned iterative schemes for mixed finite-element models of porous-media flows. *SIAM Journal on Scientific and Statistical Computing*, 13(3):794–814, May 1992. CODEN SIJCD4. ISSN 0196-5204.

- [AF88] Slimane Adjerid and Joseph E. Flaherty. A local refinement finite-element method for two-dimensional parabolic systems. *SIAM Journal on Scientific and Statistical Computing*, 9(5):792–811, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [AF89] W. Auzinger and R. Frank. Asymptotic expansions of the global discretization error for stiff problems. *SIAM Journal on Scientific and Statistical Computing*, 10(5):950–963, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [AG80] Saul Abarbanel and David Gottlieb. On improving the 2–4 two-dimensional leap-frog scheme. *SIAM Journal on Scientific and Statistical Computing*, 1(4):426–430, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [AG85] David H. Anderson and Eugene C. Gartland, Jr. The numerical solution of a nonlinear system arising in time series analysis. *SIAM Journal on Scientific and Statistical Computing*, 6(2):376–389, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [AG88] C. Cleveland Ashcraft and Roger G. Grimes. On vectorizing incomplete factorization and SSOR preconditioners. *SIAM Journal on Scientific and Statistical Computing*, 9(1):122–151, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [AG92] Kendall E. Atkinson and Ivan G. Graham. Iterative solution of linear systems arising from the boundary integral method. *SIAM Journal on Scientific and Statistical Computing*, 13(3):694–722, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [AH86] C. A. Addison and P. M. Hanson. An investigation into the stability properties of second derivative methods using perfect square iteration matrices. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1246–1264, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [AH87] C. A. Addison and P. M. Hanson. An investigation into the stability properties of semi-implicit blended formulae. *SIAM Journal on Scientific and Statistical Computing*, 8(6):963–978, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [AJ86] Loyce M. Adams and Harry F. Jordan. Is SOR color-blind? *SIAM Journal on Scientific and Statistical Computing*, 7(2):490–506, April 1986. CODEN SIJCD4. ISSN 0196-5204.



- Ascher:1989:CIS**
- [AJ89] Uri Ascher and Simon Jacobs. On collocation implementation for singularly perturbed two-point problems. *SIAM Journal on Scientific and Statistical Computing*, 10(3):533–549, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- Anderson:1990:SPS**
- [AJS90] Stewart J. Anderson, Richard H. Jones, and George D. Swanson. Smoothing polynomial splines for bivariate data. *SIAM Journal on Scientific and Statistical Computing*, 11(4):749–766, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- Al-Khayyal:1992:SSG**
- [AKHC<sup>+</sup>92] Faiz A. Al-Khayyal, Thom J. Hodgson, Grant D. Capps, James A. Dorsch, David A. Kriegman, and Paul D. Pavnica. Solution of structured geometric programs in sample survey design. *SIAM Journal on Scientific and Statistical Computing*, 13(4):874–884, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- Altman:1988:BWB**
- [Alt88] N. S. Altman. Bit-wise behavior of random number generators. *SIAM Journal on Scientific and Statistical Computing*, 9(5):941–949, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- Ashby:1992:CAC**
- [AMO92] Steven F. Ashby, Thomas A. Manteuffel, and James S. Otto. A comparison of adaptive Chebyshev and least squares polynomial preconditioning for Hermitian positive definite linear systems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):1–29, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- Armstrong:1987:SEM**
- [AMOS87] W. W. Armstrong, T. A. Marsland, M. Olafsson, and J. Schaeffer. Solving equations of motion on a virtual tree machine. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S59–S72, January 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- Anderson:1992:IFM**
- [And92] Christopher R. Anderson. An implementation of the fast multipole method without multipoles. *SIAM Journal on Scientific and Statistical Computing*, 13(4):923–947, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- Anonymous:1989:PSS**
- [Ano89] Anonymous. Preface to the special section on ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 10(5):913, 1989. CODEN SIJCD4. ISSN 0196-5204.
- Anderson:1987:GRO**
- [AOU87] T. W. Anderson, I. Olkin, and L. G. Underhill. Generation of random orthogonal matrices. *SIAM Journal on Scientific and*

- Statistical Computing*, 8(4):625–629, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [AP81] Richard C. Allen and Steven A. Pruess. An analysis of an inverse problem in ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 2(2):176–185, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [App85] Andrew W. Appel. An efficient program for many-body simulation. *SIAM Journal on Scientific and Statistical Computing*, 6(1):85–103, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [AR91] Bradley K. Alpert and Vladimir Rokhlin. A fast algorithm for the evaluation of Legendre expansions. *SIAM Journal on Scientific and Statistical Computing*, 12(1):158–179, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Arb91] Peter Arbenz. Computing eigenvalues of banded symmetric Toeplitz matrices. *SIAM Journal on Scientific and Statistical Computing*, 12(4):743–754, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [AS90] I. K. Abu-Shumays. Incomplete block cyclic reduction as a preconditioner for polynomial iterative methods. *SIAM Journal on Scientific and Statistical Computing*, 11(3):545–562, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Asc89] Uri Ascher. On symmetric schemes and differential-algebraic equations. *SIAM Journal on Scientific and Statistical Computing*, 10(5):937–949, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Asi85] Daniel Asimov. The grand tour: a tool for viewing multidimensional data. *SIAM Journal on Scientific and Statistical Computing*, 6(1):128–143, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Atk82] A. C. Atkinson. The simulation of generalized inverse Gaussian and hyperbolic random variables. *SIAM Journal on Scientific and Statistical Computing*, 3(4):502–515, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [AW80] U. Ascher and F. Y. M. Wan. Numerical solutions for maximum sustainable consumption growth with a multi-grade exhaustible resource. *SIAM Journal on Scientific and Statistical Computing*, 1(1):160–172, March 1980. CODEN SIJCD4. ISSN 0196-5204.

**Allen:1981:AIP**

**Ascher:1989:SSD**

**Appel:1985:EPM**

**Asimov:1985:GTT**

**Alpert:1991:FAE**

**Atkinson:1982:SGI**

**Arbenz:1991:CEB**

**Ascher:1980:NSM**

**Abu-Shumays:1990:IBC**

- [AW84] **Ascher:1984:CSP**  
U. Ascher and R. Weiss. Collocation for singular perturbation problems. III. nonlinear problems without turning points. *SIAM Journal on Scientific and Statistical Computing*, 5(4):811–829, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [BA87] **Bader:1987:NBI**  
G. Bader and U. Ascher. A new basis implementation for a mixed order boundary value ODE solver. *SIAM Journal on Scientific and Statistical Computing*, 8(4):483–500, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Bad91] **Baden:1991:PAD**  
Scott B. Baden. Programming abstractions for dynamically partitioning and coordinating localized scientific calculations running on multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 12(1):145–157, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [BAF86] **Ben-Artzi:1986:USO**  
Matania Ben-Artzi and Joseph Falcovitz. An upwind second-order scheme for compressible duct flows. *SIAM Journal on Scientific and Statistical Computing*, 7(3):744–768, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Bai88] **Bailey:1988:EHS**  
David H. Bailey. Extra high speed matrix multiplication on the Cray-2. *SIAM Journal on Scientific and Statistical Computing*, 9(3):603–607, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Bar86] **Barlow:1986:NMS**  
J. L. Barlow. A note on monitoring the stability of triangular decomposition of sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 7(1):166–168, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Bar90] **Barlow:1990:USZ**  
Jesse L. Barlow. On the use of structural zeros in orthogonal factorization. *SIAM Journal on Scientific and Statistical Computing*, 11(3):600–601, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [BB87a] **Bai:1987:LMR**  
D. Bai and A. Brandt. Local mesh refinement multilevel techniques. *SIAM Journal on Scientific and Statistical Computing*, 8(2):109–134, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BB87b] **Blom:1987:NSN**  
J. G. Blom and H. Brunner. The numerical solution of nonlinear Volterra integral equations of the second kind by collocation and iterated collocation methods. *SIAM Journal on Scientific and Statistical Computing*, 8(5):806–830, September 1987. CODEN SIJCD4. ISSN 0196-5204.

- [BBH89] **Brown:1989:VVC**  
Peter N. Brown, George D. Byrne, and Alan C. Hindmarsh. VODE: a variable-coefficient ODE solver. *SIAM Journal on Scientific and Statistical Computing*, 10(5):1038–1051, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [BBK84] **Bojanczyk:1984:NSS**  
A. Bojanczyk, R. P. Brent, and H. T. Kung. Numerically stable solution of dense systems of linear equations using mesh-connected processors. *SIAM Journal on Scientific and Statistical Computing*, 5(1):95–104, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [BBS87] **Boggs:1987:SEA**  
Paul T. Boggs, Richard H. Byrd, and Robert B. Schnabel. A stable and efficient algorithm for nonlinear orthogonal distance regression. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1052–1078, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BBVD87] **Bojanczyk:1987:NDC**  
A. W. Bojanczyk, R. P. Brent, P. Van Dooren, and F. R. De Hoog. A note on downdating the Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 8(3):210–221, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BC83] **Brandt:1983:MAS**  
Achi Brandt and Colin W. Cryer. Multigrid algorithms for the solution of linear complementarity problems arising from free boundary problems. *SIAM Journal on Scientific and Statistical Computing*, 4(4):655–684, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [BC86] **Bank:1986:PMC**  
Randolph E. Bank and Tony F. Chan. PLTMGC: a multigrid continuation program for parameterized nonlinear elliptic systems. *SIAM Journal on Scientific and Statistical Computing*, 7(2):540–559, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [BC88] **Becker:1988:ADA**  
Richard A. Becker and John M. Chambers. Auditing of data analyses. *SIAM Journal on Scientific and Statistical Computing*, 9(4):747–760, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [BC89] **Bourgeat:1989:TVD**  
A. Bourgeat and Bernardo Cockburn. A total variation diminishing-projection method for solving implicit numerical schemes for scalar conservation laws: a numerical study of a simple case. *SIAM Journal on Scientific and Statistical Computing*, 10(2):253–273, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [BC92] **Beatson:1992:WCS**  
R. K. Beatson and E. Chacko. Which cubic spline should one use? *SIAM Journal on Scientific*

and *Statistical Computing*, 13(4):1009–1024, July 1992. CODEN SIJCD4. ISSN 0196-5204.

**Bamberger:1988:ABC**

- [BCJ<sup>+</sup>88] Alain Bamberger, Bruno Chalindar, Patrick Joly, Jean Elizabeth Roberts, and Jean Luc Teron. Absorbing boundary conditions for Rayleigh waves. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1016–1049, November 1988. CODEN SIJCD4. ISSN 0196-5204.

**Beyn:1981:SMS**

- [BD81] Wolf-Jürgen Beyn and Eusebius Doedel. Stability and multiplicity of solutions to discretizations of nonlinear ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 2(1):107–120, March 1981. CODEN SIJCD4. ISSN 0196-5204.

**Boncelet:1984:VHR**

- [BD84] Charles G. Boncelet, Jr. and Bradley W. Dickinson. A variant of Huber robust regression. *SIAM Journal on Scientific and Statistical Computing*, 5(3):720–734, September 1984. CODEN SIJCD4. ISSN 0196-5204.

**Bourgat:1980:LDC**

- [BDG80] J. F. Bourgat, J. M. Dumay, and R. Glowinski. Large displacement calculations of flexible pipelines by finite element and nonlinear programming methods. *SIAM Journal on Scientific and Statistical Computing*, 1(1):

34–81, March 1980. CODEN SIJCD4. ISSN 0196-5204.

**Bozzini:1986:NMO**

- [BdL86] Mira Bozzini, Flavia de Tisi, and Licia Lenarduzzi. A new method in order to determine the most significant members within a large sample, in problems of surface approximation. *SIAM Journal on Scientific and Statistical Computing*, 7(1):98–104, January 1986. CODEN SIJCD4. ISSN 0196-5204.

**Byrne:1984:PFR**

- [BDS84] G. D. Byrne, A. J. DeGregoria, and D. E. Salane. A program for fitting rate constants in gas phase chemical kinetics models. *SIAM Journal on Scientific and Statistical Computing*, 5(3):642–657, September 1984. CODEN SIJCD4. ISSN 0196-5204.

**Benner:1987:AFE**

- [BDS87] R. E. Benner, Jr., H. T. Davis, and L. E. Scriven. An adaptive finite element method for steady and transient problems. *SIAM Journal on Scientific and Statistical Computing*, 8(4):529–549, July 1987. CODEN SIJCD4. ISSN 0196-5204.

**Babuska:1992:PIV**

- [BEM92] I. Babuška, H. C. Elman, and K. Markley. Parallel implementation of the *hp*-version of the finite element method on a shared-memory architecture. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1433–

- 1459, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [BEPP92] **Bramble:1992:DDM**  
James H. Bramble, Richard E. Ewing, Rossen R. Parashkevov, and Joseph E. Pasciak. Domain decomposition methods for problems with partial refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(1):397–410, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Ber86] **Berger:1986:DSA**  
Marsha J. Berger. Data structures for adaptive Grid generation. *SIAM Journal on Scientific and Statistical Computing*, 7(3):904–916, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Ber88] **Berzins:1988:GEE**  
M. Berzins. Global error estimation in the method of lines for parabolic equations. *SIAM Journal on Scientific and Statistical Computing*, 9(4):687–703, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [BF81] **Bahar:1981:NTT**  
E. Bahar and M. Fitzwater. Numerical technique to trace the loci of the complex roots of characteristic equations. *SIAM Journal on Scientific and Statistical Computing*, 2(4):389–403, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- [BF84] **Behie:1984:IFM**  
G. A. Behie and P. A. Forsyth, Jr. Incomplete factorization methods for fully implicit simulation of enhanced oil recovery. *SIAM Journal on Scientific and Statistical Computing*, 5(3):543–561, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [BG87] **Bjorstad:1987:CMC**  
Petter Bjørstad and Eric Grosse. Conformal mapping of circular arc polygons. *SIAM Journal on Scientific and Statistical Computing*, 8(1):19–32, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BG88] **Bernstein:1988:OGA**  
Herbert J. Bernstein and Max Goldstein. Optimizing Givens' algorithm for multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 9(3):601–602, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [BGF91] **Bunse-Gerstner:1991:GSD**  
A. Bunse-Gerstner and H. Fassbender. On the generalized Schur decomposition of a matrix pencil for parallel computation. *SIAM Journal on Scientific and Statistical Computing*, 12(4):911–939, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [BH88] **Barlow:1988:DSW**  
Jesse L. Barlow and Susan L. Handy. The direct solution of weighted and equality constrained least-squares problems. *SIAM Journal on Scientific and Statistical Computing*, 9(4):704–716, July 1988. CODEN SIJCD4. ISSN 0196-5204.

- Bastian:1991:PRM**
- [BH91a] Peter Bastian and Graham Horton. Parallelization of robust multigrid methods: ILU factorization and frequency decomposition method. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1457–1470, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- Bischof:1991:SPR**
- [BH91b] Christian H. Bischof and Per Christian Hansen. Structure-preserving and rank-revealing QR-factorizations. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1332–1350, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- Briggs:1987:MFM**
- [BHSO87] William L. Briggs, Leslie B. Hart, Roland A. Sweet, and Abbie O’Gallagher. Multiprocessor FFT methods. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S27–S42, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- Brown:1985:EQN**
- [BHW85] Peter N. Brown, Alan C. Hindmarsh, and Homer F. Walker. Experiments with quasi-Newton methods in solving stiff ODE systems. *SIAM Journal on Scientific and Statistical Computing*, 6(2):297–313, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- Barlow:1987:SGR**
- [BI87a] Jesse L. Barlow and Ilse C. F. Ipsen. Scaled Givens rotations for the solution of linear least squares problems on systolic arrays. *SIAM Journal on Scientific and Statistical Computing*, 8(5):716–733, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- Bhavsar:1987:DAP**
- [BI87b] V. C. Bhavsar and J. R. Isaac. Design and analysis of parallel Monte Carlo algorithms. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S73–S95, January 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- Bicknell:1991:EMP**
- [Bic91] G. V. Bicknell. The equations of motion of particles in smoothed particle hydrodynamics. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1198–1206, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- Bancora-Imbert:1988:NAO**
- [BICM88] M. C. Bancora-Imbert, P. L. Chow, and J. L. Menaldi. On the numerical approximation of an optimal correction problem. *SIAM Journal on Scientific and Statistical Computing*, 9(6):970–991, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- Bischof:1991:PFA**
- [Bis91] Christian H. Bischof. A parallel QR factorization algorithm with controlled local pivoting. *SIAM Journal on Scientific and Statistical Computing*, 12(1):36–57,

- January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [BJ89] Richard Bartels and Barry Joe. On generating discrete linear  $\ell_\infty$  test problems. *SIAM Journal on Scientific and Statistical Computing*, 10(3):550–561, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Bj84] Åke Björck. A general updating algorithm for constrained linear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 5(2):394–402, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [BK86] John H. Bolstad and Herbert B. Keller. A multigrid continuation method for elliptic problems with folds. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1081–1104, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [BK89] G. Bader and P. Kunkel. Continuation and collocation for parameter-dependent boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 10(1):72–88, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [BKK86] A. M. Bruckstein, I. Koltracht, and T. Kailath. Inverse scatter-
- ing with noisy data. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1331–1349, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [BL85] Richard P. Brent and Franklin T. Luk. The solution of singular-value and symmetric eigenvalue problems on multiprocessor arrays. *SIAM Journal on Scientific and Statistical Computing*, 6(1):69–84, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [BL87] David L. Brown and Jens Lorenz. A high-order method for stiff boundary value problems with turning points. *SIAM Journal on Scientific and Statistical Computing*, 8(5):790–805, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Blu80] James L. Blue. Robust methods for solving systems of nonlinear equations. *SIAM Journal on Scientific and Statistical Computing*, 1(1):22–33, March 1980. CODEN SIJCD4. ISSN 0196-5204.
- [BM90] Jonathan F. Bard and James T. Moore. A branch and bound algorithm for the bilevel programming problem. *SIAM Journal on Scientific and Statistical Computing*, 11(2):281–292, March 1990. CODEN SIJCD4. ISSN 0196-5204.



- Brandt:19xx:MTP**
- [BMxx] A. Brandt and V. Mikulinsky. Multigrid treatment of problems with highly oscillating boundary and boundary conditions. *SIAM Journal on Scientific and Statistical Computing*, ??(??):??, ???? 19xx. CODEN SIJCD4. ISSN 0196-5204. Submitted.
- Bartels:1986:GTP**
- [BMA86] Richard H. Bartels and Nezam Mahdavi-Amiri. On generating test problems for nonlinear programming algorithms. *SIAM Journal on Scientific and Statistical Computing*, 7(3):769–798, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- Brandt:1983:MMD**
- [BMR83] A. Brandt, S. McCormick, and J. Ruge. Multigrid methods for differential eigenproblems. *SIAM Journal on Scientific and Statistical Computing*, 4(2):244–260, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- Barlow:1988:IME**
- [BNP88] J. L. Barlow, N. K. Nichols, and R. J. Plemmons. Iterative methods for equality-constrained least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 9(5):892–906, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- Boisvert:1981:FHO**
- [Boi81] Ronald F. Boisvert. Families of high order accurate discretizations of some elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 2(3):268–284, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- Boisvert:1991:AST**
- [Boi91] Ronald F. Boisvert. Algorithms for special tridiagonal systems. *SIAM Journal on Scientific and Statistical Computing*, 12(2):423–442, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- Boncelet:1987:ACO**
- [Bon87] Charles G. Boncelet, Jr. Algorithms to computer order statistic distributions. *SIAM Journal on Scientific and Statistical Computing*, 8(5):868–876, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- Bogle:1990:NSP**
- [BP90] I. D. L. Bogle and J. D. Perkins. A new sparsity preserving quasi-Newton update for solving nonlinear equations. *SIAM Journal on Scientific and Statistical Computing*, 11(4):621–630, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- Baum:1984:FDS**
- [BR84] Howard R. Baum and Ronald G. Rehm. Finite difference solutions for internal waves in enclosures. *SIAM Journal on Scientific and Statistical Computing*, 5(4):958–977, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- Brown:1985:TDM**
- [BR85] David L. Brown and Luis Guillermo M. Reyna. A two-dimensional mesh refinement

method for problems with one-dimensional singularities. *SIAM Journal on Scientific and Statistical Computing*, 6(3):515–531, July 1985. CODEN SIJCD4. ISSN 0196-5204.

**Bank:1990:CSG**

- [BR90] Randolph E. Bank and Donald J. Rose. On the complexity of sparse Gaussian elimination via bordering. *SIAM Journal on Scientific and Statistical Computing*, 11(1):145–160, January 1990. CODEN SIJCD4. ISSN 0196-5204.

**Baum:1983:FDC**

- [BRBC83] Howard R. Baum, Ronald G. Rehm, P. Darcy Barnett, and Daniel M. Corley. Finite difference calculations of buoyant convection in an enclosure. I. the basic algorithm. *SIAM Journal on Scientific and Statistical Computing*, 4(1):117–135, March 1983. CODEN SIJCD4. ISSN 0196-5204.

**Bank:1983:NMS**

- [BRF83] Randolph E. Bank, Donald J. Rose, and Wolfgang Fichtner. Numerical methods for semiconductor device simulation. *SIAM Journal on Scientific and Statistical Computing*, 4(3):416–435, September 1983. CODEN SIJCD4. ISSN 0196-5204.

**Banks:1984:SBT**

- [BRI84] H. T. Banks, I. G. Rosen, and K. Ito. A spline based technique for computing Riccati operators

and feedback controls in regulator problems for delay equations. *SIAM Journal on Scientific and Statistical Computing*, 5(4):830–855, December 1984. CODEN SIJCD4. ISSN 0196-5204.

**Briggs:1987:FSP**

- [Bri87] William L. Briggs. Further symmetries of in-place FFTs. *SIAM Journal on Scientific and Statistical Computing*, 8(4):644–654, July 1987. CODEN SIJCD4. ISSN 0196-5204.

**Brown:1986:DFP**

- [Bro86] Robert H. Brown. The distribution function of positive definite quadratic forms in normal random variables. *SIAM Journal on Scientific and Statistical Computing*, 7(2):689–695, April 1986. CODEN SIJCD4. ISSN 0196-5204.

**Brown:1991:TCA**

- [Bro91] Peter N. Brown. A theoretical comparison of the Arnoldi and GMRES algorithms. *SIAM Journal on Scientific and Statistical Computing*, 12(1):58–78, January 1991. CODEN SIJCD4. ISSN 0196-5204.

**Bloomfield:1980:LAD**

- [BS80] Peter Bloomfield and William Steiger. Least absolute deviations curve-fitting. *SIAM Journal on Scientific and Statistical Computing*, 1(2):290–301, June 1980. CODEN SIJCD4. ISSN 0196-5204.

- [BS83] **Bielak:1983:MGP**  
 J. Bielak and E. Stephan. A modified Galerkin procedure for bending of beams on elastic foundations. *SIAM Journal on Scientific and Statistical Computing*, 4(2):340–352, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [BS87] **Bank:1987:GSE**  
 Randolph E. Bank and R. Kent Smith. General sparse elimination requires no permanent integer storage. *SIAM Journal on Scientific and Statistical Computing*, 8(4):574–584, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BS89] **Boult:1989:OCA**  
 T. Boult and K. Sikorski. An optimal complexity algorithm for computing the topological degree in two dimensions. *SIAM Journal on Scientific and Statistical Computing*, 10(4):686–698, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [BS90] **Brown:1990:HKM**  
 Peter N. Brown and Youcef Saad. Hybrid Krylov methods for nonlinear systems of equations. *SIAM Journal on Scientific and Statistical Computing*, 11(3):450–481, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [BS91] **Bojanczyk:1991:SAH**  
 Adam W. Bojańczyk and Alan O. Steinhardt. Stability analysis of a Householder-based algorithm for downdating the Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1255–1265, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [BS92] **Bramley:1992:RPM**  
 R. Bramley and A. Sameh. Row projection methods for large non-symmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):168–193, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [BT80] **Banks:1980:MDL**  
 Stephen C. Banks and Howard L. Taylor. A modification to the discrete  $\ell_1$  linear approximation algorithm of Barrodale and Roberts. *SIAM Journal on Scientific and Statistical Computing*, 1(2):187–190, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [BT82] **Bayliss:1982:OBC**  
 Alvin Bayliss and Eli Turkel. Outflow boundary conditions for fluid dynamics. *SIAM Journal on Scientific and Statistical Computing*, 3(2):250–259, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Bub88] **Bube:1988:EDO**  
 Kenneth P. Bube. The effect of discontinuities on the order of convergence of numerical inversion methods. *SIAM Journal on Scientific and Statistical Computing*, 9(3):407–417, May 1988. CODEN SIJCD4. ISSN 0196-5204.

- [Bud87] **Budgell:1987:SFL** W. P. Budgell. Stochastic filtering of linear shallow water wave processes. *SIAM Journal on Scientific and Statistical Computing*, 8(2):152–170, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Bun86] **Buneman:1986:CFF** Oscar Buneman. Conversion of FFT's to fast Hartley transforms. *SIAM Journal on Scientific and Statistical Computing*, 7(2):624–638, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Bue86] **Buell:1986:OCI** Jeffrey C. Buell. The operator compact implicit method for fourth order ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1232–1245, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Bun87] **Bunch:1987:MLE** David S. Bunch. Maximum likelihood estimation of probabilistic choice models. *SIAM Journal on Scientific and Statistical Computing*, 8(1):56–70, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Buk88] **Bukiet:1988:AFT** Bruce Bukiet. Application of front tracking to two-dimensional curved detonation fronts. *SIAM Journal on Scientific and Statistical Computing*, 9(1):80–99, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Bun80] **Buneman:1980:TFE** Oscar Buneman. Tetrahedral finite elements for interpolation. *SIAM Journal on Scientific and Statistical Computing*, 1(2):223–248, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Bun85] **Bunch:1985:SMS** James R. Bunch. Stability of methods for solving Toeplitz systems of equations. *SIAM Journal on Scientific and Statistical Computing*, 6(2):349–364, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [BV87a] **Bischof:1987:RPH** Christian Bischof and Charles Van Loan. The WY representation for products of Householder matrices. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S2–S13, January 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [BV87b] **Bischof:1987:WRP** Christian Bischof and Charles Van Loan. The WY representation for products of Householder matrices. *SIAM Journal on Scientific and Statistical Computing*, 8(1):s2–s13, 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Bv91] **Bisseling:1991:PTS** Rob H. Bisseling and Johannes G. G. van de Vorst. Parallel triangular system solving on a mesh network of transputers. *SIAM*

- Journal on Scientific and Statistical Computing*, 12(4):787–799, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [BW80] Richard M. Beam and R. F. Warming. Alternating direction implicit methods for parabolic equations with a mixed derivative. *SIAM Journal on Scientific and Statistical Computing*, 1(1):131–159, March 1980. CODEN SIJCD4. ISSN 0196-5204.
- [BW83] James L. Blue and Charles L. Wilson. Two-dimensional analysis of semiconductor devices using general-purpose interactive PDE software. *SIAM Journal on Scientific and Statistical Computing*, 4(3):462–484, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [BW87] Douglas M. Bates and Donald G. Watts. A generalized Gauss–Newton procedure for multi-response parameter estimation. *SIAM Journal on Scientific and Statistical Computing*, 8(1):49–55, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [BW89a] Petter E. Bjørstad and Olof B. Widlund. To overlap or not to overlap: a note on a domain decomposition method for elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 10(5):1053–1061, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [BW89b] Christoph Börgers and Olof B. Widlund. A domain decomposition Laplace solver for internal combustion engine modeling. *SIAM Journal on Scientific and Statistical Computing*, 10(2):211–226, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Bye86] Ralph Byers. A Hamiltonian  $QR$  algorithm. *SIAM Journal on Scientific and Statistical Computing*, 7(1):212–229, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Bye88] Ralph Byers. A bisection method for measuring the distance of a stable matrix to the unstable matrices. *SIAM Journal on Scientific and Statistical Computing*, 9(5):875–881, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Cam85] Stephen L. Campbell. The numerical solution of higher index linear time varying singular systems of differential equations. *SIAM Journal on Scientific and Statistical Computing*, 6(2):334–348, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Can92] Francis X. Canning. Sparse approximation for solving integral

- equations with oscillatory kernels. *SIAM Journal on Scientific and Statistical Computing*, 13(1): 71–87, January 1992. CODEN SIJCD4. ISSN 0196-5204. [Cel91]
- Castillo:1991:DVG**
- [Cas91] José E. Castillo. A discrete variational Grid generation method. *SIAM Journal on Scientific and Statistical Computing*, 12(2): 454–468, March 1991. CODEN SIJCD4. ISSN 0196-5204. [CF88]
- Causey:1983:CAO**
- [Cau83] Beverley D. Causey. Computational aspects of optimal allocation in multivariate stratified sampling. *SIAM Journal on Scientific and Statistical Computing*, 4(2):322–329, June 1983. CODEN SIJCD4. ISSN 0196-5204. [CF91]
- Christov:1990:FSM**
- [CB90] C. I. Christov and K. L. Bekyarov. A Fourier-series method for solving soliton problems. *SIAM Journal on Scientific and Statistical Computing*, 11(4): 631–647, July 1990. CODEN SIJCD4. ISSN 0196-5204. [CG90a]
- Calamai:1980:SAS**
- [CC80] P. H. Calamai and A. R. Conn. A stable algorithm for solving the multifacility location problem involving Euclidean distances. *SIAM Journal on Scientific and Statistical Computing*, 1(4):512–526, December 1980. CODEN SIJCD4. ISSN 0196-5204. [CG90b]
- Celmins:1991:PAN**
- Aivars Celmiņš. A practical approach to nonlinear fuzzy regression. *SIAM Journal on Scientific and Statistical Computing*, 12(3): 521–546, May 1991. CODEN SIJCD4. ISSN 0196-5204.
- Chan:1988:EWC**
- Tony F. Chan and David E. Foulser. Effectively well-conditioned linear systems. *SIAM Journal on Scientific and Statistical Computing*, 9(6):963–969, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- Carlson:1991:BIA**
- R. E. Carlson and F. N. Fritsch. A bivariate interpolation algorithm for data that are monotone in one variable. *SIAM Journal on Scientific and Statistical Computing*, 12(4):859–866, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- Chan:1990:NED**
- Tony F. Chan and Danny Goovaerts. A note on the efficiency of domain decomposed incomplete factorizations. *SIAM Journal on Scientific and Statistical Computing*, 11(4):794–803, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- Chu:1990:FDM**
- Eleanor Chu and Alan George. *QR* factorization of a dense matrix on a hypercube multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 11(5):

- 990–1028, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- [CGK86] Mark Coffey, John Greenstadt, and Alan Karp. The application of cell discretization to a “circle in the square” model problem. *SIAM Journal on Scientific and Statistical Computing*, 7(3):917–939, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [CGR88] **Coffey:1986:ACD** J. Carrier, L. Greengard, and V. Rokhlin. A fast adaptive multipole algorithm for particle simulations. *SIAM Journal on Scientific and Statistical Computing*, 9(4):669–686, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [CGM85a] **Concus:1985:BPC** P. Concus, G. H. Golub, and G. Meurant. Block preconditioning for the conjugate gradient method. *SIAM Journal on Scientific and Statistical Computing*, 6(1):220–252, January 1985. CODEN SIJCD4. ISSN 0196-5204. See corrigendum [CGM85b].
- [CGM85b] **Concus:1985:CBP** P. Concus, G. H. Golub, and G. Meurant. Corrigendum: “Block preconditioning for the conjugate gradient method”. *SIAM Journal on Scientific and Statistical Computing*, 6(3):791, July 1985. CODEN SIJCD4. ISSN 0196-5204. See [CGM85a].
- [CGR86] **Coughran:1986:VDS** William M. Coughran, Jr., Eric Grosse, and Donald J. Rose. Variation diminishing splines in simulation. *SIAM Journal on Scientific and Statistical Computing*, 7(2):696–705, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [CH87] **Chu:1987:PSO** Moody T. Chu and Hans Hamilton. Parallel solution of ODE’s by multiblock methods. *SIAM Journal on Scientific and Statistical Computing*, 8(3):342–353, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [CH90a] **Chan:1990:CTS** Tony F. Chan and Per Christian Hansen. Computing truncated singular value decomposition least squares solutions by rank revealing *QR*-factorizations. *SIAM Journal on Scientific and Statistical Computing*, 11(3):519–530, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [CH90b] **Coleman:1990:CTR** Thomas F. Coleman and Christian Hempel. Computing a trust region step for a penalty function. *SIAM Journal on Scientific and Statistical Computing*, 11(1):180–201, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [CH91] **Chan:1991:EDD** Tony F. Chan and Thomas Y. Hou. Eigendecomposition of do-

- main decomposition interface operators for constant coefficient elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1471–1479, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [CH92] Tony F. Chan and Per Christian Hansen. Some applications of the rank revealing  $QR$  factorization. *SIAM Journal on Scientific and Statistical Computing*, 13(3):727–741, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Cha84a] Tony F. Chan. Deflation techniques and block-elimination algorithms for solving bordered singular systems. *SIAM Journal on Scientific and Statistical Computing*, 5(1):121–134, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Cha84b] Tony F. Chan. Newton-like pseudo-arclength methods for computing simple turning points. *SIAM Journal on Scientific and Statistical Computing*, 5(1):135–148, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Cha88] Tony F. Chan. An optimal circulant preconditioner for Toeplitz systems. *SIAM Journal on Scientific and Statistical Computing*, 9(4):766–771, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Cha91] Tony F. Chan. Fourier analysis of relaxed incomplete factorization preconditioners. *SIAM Journal on Scientific and Statistical Computing*, 12(3):668–680, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Che83] A. Y. Cheer. Numerical study of incompressible slightly viscous flow past blunt bodies and airfoils. *SIAM Journal on Scientific and Statistical Computing*, 4(4):685–705, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Chi88] Yi Ling F. Chiang. A modified Remes algorithm. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1058–1072, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Cho80] Alexandre Joel Chorin. Vortex models and boundary layer instability. *SIAM Journal on Scientific and Statistical Computing*, 1(1):1–21, March 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Cho92] Mo-Hong Chou. An efficient scheme for unsteady flow past an object with boundary conformal to a circle. *SIAM Journal on Scientific and Statistical Computing*, 13(4):860–873, July 1992. CODEN SIJCD4. ISSN 0196-5204.



- [CJ84] **Chan:1984:NPK**  
 Tony F. Chan and Kenneth R. Jackson. Nonlinearly preconditioned Krylov subspace methods for discrete Newton algorithms. *SIAM Journal on Scientific and Statistical Computing*, 5(3):533–542, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [CJ86] **Chan:1986:UIL**  
 Tony F. Chan and Kenneth R. Jackson. The use of iterative linear-equation solvers in codes for large systems of stiff IVPs for ODEs. *SIAM Journal on Scientific and Statistical Computing*, 7(2):378–417, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [CJ92] **Chan:1992:FBP**  
 Raymond H. Chan and Xiao-Qing Jin. A family of block preconditioners for block systems. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1218–1235, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [CK82] **Chan:1982:ALC**  
 Tony F. C. Chan and H. B. Keller. Arc-length continuation and multi-grid techniques for nonlinear elliptic eigenvalue problems. *SIAM Journal on Scientific and Statistical Computing*, 3(2):173–194, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [CK83] **Chin:1983:HAF**  
 R. C. Y. Chin and R. Krasny. A hybrid asymptotic-finite element method for stiff two-point boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 4(2):229–243, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [CKLA87] **Chun:1987:FPA**  
 J. Chun, T. Kailath, and H. Lev-Ari. Fast parallel algorithms for *QR* and triangular factorization. *SIAM Journal on Scientific and Statistical Computing*, 8(6):899–913, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [CL81] **Couet:1981:EEI**  
 Benoit Couët and A. Leonard. Exact extension to the infinite domain for the vortex-in-cell method. *SIAM Journal on Scientific and Statistical Computing*, 2(3):311–320, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- [CL86] **Cohen:1986:SAR**  
 Joel S. Cohen and James A. LaVita. A simple approximate random choice method for scalar conservation laws. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1350–1359, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [CL90] **Coleman:1990:SSN**  
 Thomas F. Coleman and Guang Ye Li. Solving systems of nonlinear equations on a message-passing multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1116–

- 1135, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Cla85] D. I. Clark. The mathematical structure of Huber's  $M$ -estimator. *SIAM Journal on Scientific and Statistical Computing*, 6(1):209–219, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [CM81] M. B. Carver and S. R. MacEwen. On the use of sparse matrix approximation to the Jacobian in integrating large sets of ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 2(1):51–64, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [CM87] David Colton and Peter Monk. The numerical solution of the three-dimensional inverse scattering problem for time harmonic acoustic waves. *SIAM Journal on Scientific and Statistical Computing*, 8(3):278–291, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [CMd84] Raymond C. Y. Chin, Thomas A. Manteuffel, and John de Pillis. ADI as a preconditioning for solving the convection-diffusion equation. *SIAM Journal on Scientific and Statistical Computing*, 5(2):281–299, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [CMR86] Phillip Colella, Andrew Majda, and Victor Roytburd. Theoretical and numerical structure for reacting shock waves. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1059–1080, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [CO83] D. I. Clark and M. R. Osborne. A descent algorithm for minimizing polyhedral convex functions. *SIAM Journal on Scientific and Statistical Computing*, 4(4):757–786, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [CO86] D. I. Clark and M. R. Osborne. Finite algorithms for Huber's  $M$ -estimator. *SIAM Journal on Scientific and Statistical Computing*, 7(1):72–85, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Coc85] Bernardo Cockburn. Numerical resolution of Maxwell's equations in polarisable media at radio and lower frequencies. *SIAM Journal on Scientific and Statistical Computing*, 6(4):843–852, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Col82] Phillip Colella. Glimm's method for gas dynamics. *SIAM Journal on Scientific and Statistical Computing*, 3(1):76–110, March

1982. CODEN SIJCD4. ISSN 0196-5204.
- Colella:1985:DEM**
- [Col85] Phillip Colella. A direct Eulerian MUSCL Scheme for gas dynamics. *SIAM Journal on Scientific and Statistical Computing*, 6(1): 104–117, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- Costantini:1987:CMI**
- [Cos87] Paolo Costantini. Co-monotone interpolating splines of arbitrary degree—a local approach. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1026–1034, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- Chernoff:1986:NSB**
- [CP86] Herman Chernoff and A. John Petkau. Numerical solutions for Bayes sequential decision problems. *SIAM Journal on Scientific and Statistical Computing*, 7(1): 46–59, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- Clark:1989:NSB**
- [CP89] Kenneth D. Clark and Linda R. Petzold. Numerical solution of boundary value problems in differential-algebraic systems. *SIAM Journal on Scientific and Statistical Computing*, 10(5): 915–936, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- Cheng:1992:SIC**
- [CP92a] Tu Cheng and Charles S. Peskin. Stability and instability in the computation of flows with moving immersed boundaries: A comparison of three methods. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1361–1376, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- Coleman:1992:PNL**
- [CP92b] Thomas F. Coleman and Paul E. Plassmann. A parallel nonlinear least-squares solver: Theoretical analysis and numerical results. *SIAM Journal on Scientific and Statistical Computing*, 13(3):771–793, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- Cline:1983:SCE**
- [CR83] A. K. Cline and R. K. Rew. A set of counter-examples to three condition number estimators. *SIAM Journal on Scientific and Statistical Computing*, 4(4):602–611, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- Chan:1987:DDF**
- [CR87a] Tony F. Chan and Diana C. Resasco. A domain-decomposed fast Poisson solver on a rectangle. *SIAM Journal on Scientific and Statistical Computing*, 8(1): S14–S26, January 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985). See errata [CR87b].
- Chan:1987:EDD**
- [CR87b] Tony F. Chan and Diana C. Resasco. Errata: “A domain-decomposed fast Poisson solver

- on a rectangle". *SIAM Journal on Scientific and Statistical Computing*, 8(3):457, May 1987. CODEN SIJCD4. ISSN 0196-5204. See [CR87a]. [CS85c]
- Corliss:1987:ASV**
- [CR87c] George F. Corliss and Louis B. Rall. Adaptive, self-validating numerical quadrature. *SIAM Journal on Scientific and Statistical Computing*, 8(5):831–847, September 1987. CODEN SIJCD4. ISSN 0196-5204. [CS89]
- Crownover:1991:LSA**
- [Cro91] Richard M. Crownover. A least squares approach to linear discriminant analysis. *SIAM Journal on Scientific and Statistical Computing*, 12(3):595–606, 1991. CODEN SIJCD4. ISSN 0196-5204. [CSL85]
- Chan:1985:IMS**
- [CS85a] Tony F. Chan and Youcef Saad. Iterative methods for solving bordered systems with applications to continuation methods. *SIAM Journal on Scientific and Statistical Computing*, 6(2):438–451, April 1985. CODEN SIJCD4. ISSN 0196-5204. [Cup83]
- Chan:1985:CES**
- [CS85b] Tony F. Chan and Faisal Saied. A comparison of elliptic solvers for general two-dimensional regions. *SIAM Journal on Scientific and Statistical Computing*, 6(3):742–760, July 1985. CODEN SIJCD4. ISSN 0196-5204. [Cup84]
- Chan:1985:PNM**
- Tony F. Chan and Robert Schreiber. Parallel networks for multi-grid algorithms: architecture and complexity. *SIAM Journal on Scientific and Statistical Computing*, 6(3):698–711, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- Chan:1989:TEC**
- Raymond H. Chan and Gilbert Strang. Toeplitz equations by conjugate gradients with circulant preconditioner. *SIAM Journal on Scientific and Statistical Computing*, 10(1):104–119, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- Conrad:1985:NAS**
- Francis Conrad and Claudine Schmidt-Lainé. Numerical and asymptotic study of a system of coupled diffusion and reaction equations arising in enzyme kinetics. *SIAM Journal on Scientific and Statistical Computing*, 6(3):652–669, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- Cuppen:1983:SVD**
- [Cup83] J. J. M. Cuppen. The singular value decomposition in product form. *SIAM Journal on Scientific and Statistical Computing*, 4(2):216–222, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- Cuppen:1984:CIV**
- [Cup84] J. J. M. Cuppen. Calculating the isochrones of ventricular depolarization. *SIAM Journal on Scientific and Statistical Computing*, 5

- (1):105–120, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- Cybenko:1986:CME**
- [CV86] George Cybenko and Charles Van Loan. Computing the minimum eigenvalue of a symmetric positive definite Toeplitz matrix. *SIAM Journal on Scientific and Statistical Computing*, 7(1):123–131, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- Cash:1991:DCM**
- [CW91] J. R. Cash and M. H. Wright. A deferred correction method for nonlinear two-point boundary value problems: Implementation and numerical evaluation. *SIAM Journal on Scientific and Statistical Computing*, 12(4):971–989, July 1991. CODEN SIJCD4. ISSN 0196-5204. URL <https://epubs.siam.org/doi/abs/10.1137/0912052>.
- Cai:1992:DDA**
- [CW92] Xiao-Chuan Cai and Olof B. Widlund. Domain decomposition algorithms for indefinite elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):243–258, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- Cullum:1983:LAC**
- [CWL83] Jane Cullum, Ralph A. Willoughby, and Mark Lake. A Lánczos algorithm for computing singular values and vectors of large matrices. *SIAM Journal on Scientific and Statistical Computing*, 4
- (2):197–215, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- Cybenko:1980:NSL**
- [Cyb80] George Cybenko. The numerical stability of the Levinson–Durbin algorithm for Toeplitz systems of equations. *SIAM Journal on Scientific and Statistical Computing*, 1(3):303–319, September 1980. CODEN SIJCD4. ISSN 0196-5204.
- Cybenko:1984:FAD**
- [Cyb84] George Cybenko. Fast approximation of dominant harmonics. *SIAM Journal on Scientific and Statistical Computing*, 5(2):317–331, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- Cybenko:1987:FTO**
- [Cyb87] George Cybenko. Fast Toeplitz orthogonalization using inner products. *SIAM Journal on Scientific and Statistical Computing*, 8(5):734–740, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- DAzevedo:1991:OTM**
- [D’A91] E. F. D’Azevedo. Optimal triangular mesh generation by coordinate transformation. *SIAM Journal on Scientific and Statistical Computing*, 12(4):755–786, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- Daripa:1992:FAS**
- [Dar92] Prabir Daripa. A fast algorithm to solve nonhomogeneous Cauchy–Riemann equations in

- the complex plane. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1418–1432, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Dav81] George J. Davis. Numerical solution of a quadratic matrix equation. *SIAM Journal on Scientific and Statistical Computing*, 2(2):164–175, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Dav87] Stephen F. Davis. A simplified TVD finite difference scheme via artificial viscosity. *SIAM Journal on Scientific and Statistical Computing*, 8(1):1–18, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Dav88] S. F. Davis. Simplified second-order Godunov-type methods. *SIAM Journal on Scientific and Statistical Computing*, 9(3):445–473, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Dax83] Achiya Dax. A diagonal modification for the down dating algorithm. *SIAM Journal on Scientific and Statistical Computing*, 4(1):85–93, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Dax89] Achiya Dax. The  $\ell_1$  solution of linear equations subject to linear constraints. *SIAM Journal on Scientific and Statistical Computing*, 10(2):328–340, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [dB80] Carl de Boor. FFT as nested multiplication, with a twist. *SIAM Journal on Scientific and Statistical Computing*, 1(1):173–178, 1980. CODEN SIJCD4. ISSN 0196-5204.
- [DB90] Achiya Dax and Brian Berkowitz. Column relaxation methods for least norm problems. *SIAM Journal on Scientific and Statistical Computing*, 11(5):975–989, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- [DC92] June M. Donato and Tony F. Chan. Fourier analysis of incomplete factorization preconditioners for three-dimensional anisotropic problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):319–338, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [De 89] P. P. M. De Rijk. A one-sided Jacobi algorithm for computing the singular value decomposition on a vector computer. *SIAM Journal on Scientific and Statistical Computing*, 10(2):359–371, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [de 92] P. M. de Zeeuw. Nonlinear multigrid applied to a one-

**Davis:1981:NSQ****deBoor:1980:FNM****Davis:1987:STF****Dax:1990:CRM****Davis:1988:SSO****Donato:1992:FAI****Dax:1983:DMD****DeRijk:1989:OSJ****Dax:1989:SLE****deZeeuw:1992:NMA**

- dimensional stationary semiconductor model. *SIAM Journal on Scientific and Statistical Computing*, 13(2):512–530, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [DE91a] Thomas K. DeLillo and Alan R. Elcrat. A comparison of some numerical conformal mapping-methods for exterior regions. *SIAM Journal on Scientific and Statistical Computing*, 12(2):399–422, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [DE91b] Luca Dieci and Donald Estep. Some stability aspects of schemes for the adaptive integration of stiff initial value problems. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1284–1303, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Dec91] Naomi H. Decker. A note on the parallel efficiency of the Frederickson–McBryan multigrid algorithm. *SIAM Journal on Scientific and Statistical Computing*, 12(1):208–220, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Dek83] Joseph G. Deken. Approximating conditional moments of the multivariate normal distribution. *SIAM Journal on Scientific and Statistical Computing*, 4(4):720–732, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Dem84] James Demmel. Underflow and the reliability of numerical software. *SIAM Journal on Scientific and Statistical Computing*, 5(4):887–919, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Den87] J. E. Dendy, Jr. Two multigrid methods for three-dimensional problems with discontinuous and anisotropic coefficients. *SIAM Journal on Scientific and Statistical Computing*, 8(5):673–685, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Dev91] Luc Devroey. Algorithms for generating discrete random variables with a given generating function or a given moment sequence. *SIAM Journal on Scientific and Statistical Computing*, 12(1):107–126, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [DF82] Stephen F. Davis and Joseph E. Flaherty. An adaptive finite element method for initial-boundary value problems for partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 3(1):6–27, March 1982. CODEN SIJCD4. ISSN 0196-5204.

**DeLillo:1991:CSN****Demmel:1984:URN****Dieci:1991:SSA****Dendy:1987:TMM****Decker:1991:NPE****Devroey:1991:AGD****Deken:1983:ACM****Davis:1982:AFE**

- [DG85] **Delbourgo:1985:SPP**  
R. Delbourgo and J. A. Gregory. Shape preserving piecewise rational interpolation. *SIAM Journal on Scientific and Statistical Computing*, 6(4):967–976, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [DH82] **DiDonato:1982:MCI**  
A. R. DiDonato and R. K. Hageman. A method for computing the integral of the bivariate normal distribution over an arbitrary polygon. *SIAM Journal on Scientific and Statistical Computing*, 3(4):434–446, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [dH84] **deGroen:1984:BSS**  
Pieter P. N. de Groen and Martin Hermann. Bidirectional shooting: a strategy to improve the reliability of shooting methods for ODE. *SIAM Journal on Scientific and Statistical Computing*, 5(2):360–369, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [DH86] **Dongarra:1986:IDL**  
Jack J. Dongarra and Tom Hewitt. Implementing dense linear algebra algorithms using multitasking on the Cray X-MP-4 (or approaching the gigaflop). *SIAM Journal on Scientific and Statistical Computing*, 7(1):347–350, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Die85] **Diehr:1985:EBB**  
George Diehr. Evaluation of a branch and bound algorithm for clustering. *SIAM Journal on Scientific and Statistical Computing*, 6(2):268–284, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Die86] **Dierckx:1986:SAB**  
P. Dierckx. The spectral approximation of bicubic splines on the sphere. *SIAM Journal on Scientific and Statistical Computing*, 7(2):611–623, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [DIR92a] **Dendy:1992:SMA**  
J. E. Dendy, Jr., M. P. Ida, and J. M. Rutledge. A semicoarsening multigrid algorithm for SIMD machines. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1460–1469, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [DIR<sup>+</sup>92b] **Desa:1992:PIM**  
Colin Desa, Kashmira M. Irani, Calvin J. Ribbens, Layne T. Watson, and Homer F. Walker. Preconditioned iterative methods for homotopy curve tracking. *SIAM Journal on Scientific and Statistical Computing*, 13(1):30–46, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [DJH80] **Didonato:1980:CIB**  
A. R. Didonato, M. P. Jarnagin, Jr., and R. K. Hageman. Computation of the integral of the bivariate normal distribution over convex polygons. *SIAM Journal on Scientific and Statistical Computing*, 1(2):179–186, June



1980. CODEN SIJCD4. ISSN 0196-5204.
- [DK85] **Decker:1985:ECD** D. W. Decker and C. T. Kelley. Expanded convergence domains for Newton's method at nearly singular roots. *SIAM Journal on Scientific and Statistical Computing*, 6(4):951–966, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [DK87] **Dukowicz:1987:ACR** John K. Dukowicz and John W. Kodis. Accurate conservative remapping (rezoning) for arbitrary Lagrangian–Eulerian computations. *SIAM Journal on Scientific and Statistical Computing*, 8(3):305–321, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [DK90] **Demmel:1990:ASV** James Demmel and W. Kahan. Accurate singular values of bidiagonal matrices. *SIAM Journal on Scientific and Statistical Computing*, 11(5):873–912, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- [dKS82] **deHoog:1982:IMN** F. R. de Hoog, J. H. Knight, and A. N. Stokes. An improved method for numerical inversion of Laplace transforms. *SIAM Journal on Scientific and Statistical Computing*, 3(3):357–366, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [DL92] **Dieci:1992:BMC** Luca Dieci and Jens Lorenz. Block  $M$ -matrices and computation of invariant tori. *SIAM Journal on Scientific and Statistical Computing*, 13(4):885–903, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [DLR86] **Dyn:1986:NPS** Nira Dyn, David Levin, and Samuel Rippa. Numerical procedures for surface fitting of scattered data by radial functions. *SIAM Journal on Scientific and Statistical Computing*, 7(2):639–659, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [DLR91] **Dieci:1991:NCI** Luca Dieci, Jens Lorenz, and Robert D. Russell. Numerical calculation of invariant tori. *SIAM Journal on Scientific and Statistical Computing*, 12(3):607–647, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [DM90a] **Degond:1990:DAD** Pierre Degond and Francisco-José J. Mustieles. A deterministic approximation of diffusion equations using particles. *SIAM Journal on Scientific and Statistical Computing*, 11(2):293–310, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [DM90b] **Deville:1990:FEP** M. O. Deville and E. H. Mund. Finite-element preconditioning for pseudospectral solutions of

elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 11(2):311–342, March 1990. CODEN SIJCD4. ISSN 0196-5204.

**Deville:1992:FAF**

[DM92]

Michel O. Deville and Ernest H. Mund. Fourier analysis of finite element preconditioned collocation schemes. *SIAM Journal on Scientific and Statistical Computing*, 13(2):596–610, March 1992. CODEN SIJCD4. ISSN 0196-5204.

**Douglas:1990:FHS**

[DMM90]

Craig C. Douglas, Jan Mandel, and Willard L. Miranker. Fast hybrid solution of algebraic systems. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1073–1086, November 1990. CODEN SIJCD4. ISSN 0196-5204.

**Duff:1987:ULP**

[DNR87]

Iain S. Duff, Jorge Nocedal, and John K. Reid. The use of linear programming for the solution of sparse sets of nonlinear equations. *SIAM Journal on Scientific and Statistical Computing*, 8(2):99–108, March 1987. CODEN SIJCD4. ISSN 0196-5204.

**Dongarra:1983:IAC**

[Don83]

J. J. Dongarra. Improving the accuracy of computed singular values. *SIAM Journal on Scientific and Statistical Computing*, 4(4):712–719, December 1983. CODEN SIJCD4. ISSN 0196-5204. URL

<http://www.netlib.org/utk/people/JackDongarra/PAPERS/Improving-the-Accuracy-of-Computed-Singular-Values.pdf>.

**Dormand:1989:PRK**

[DP89]

J. R. Dormand and P. J. Prince. Practical Runge–Kutta processes. *SIAM Journal on Scientific and Statistical Computing*, 10(5):977–989, September 1989. CODEN SIJCD4. ISSN 0196-5204.

**deBoor:1982:EPA**

[dR82]

Carl de Boor and John R. Rice. Extremal polynomials with application to Richardson iteration for indefinite linear systems. *SIAM Journal on Scientific and Statistical Computing*, 3(1):47–57, March 1982. CODEN SIJCD4. ISSN 0196-5204.

**Duff:1984:MSU**

[DR84]

I. S. Duff and J. K. Reid. The multifrontal solution of unsymmetric sets of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 5(3):633–641, September 1984. CODEN SIJCD4. ISSN 0196-5204.

**Dyksen:1985:SVN**

[DR85]

Wayne R. Dyksen and John R. Rice. Symmetric versus nonsymmetric differencing. *SIAM Journal on Scientific and Statistical Computing*, 6(1):45–48, January 1985. CODEN SIJCD4. ISSN 0196-5204.

- [DR86] **Dyksen:1986:ISH**  
Wayne R. Dyksen and John R. Rice. The importance of scaling for the Hermite bicubic collocation equations. *SIAM Journal on Scientific and Statistical Computing*, 7(3):707–719, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [DS84] **Diaconis:1984:NFL**  
Persi Diaconis and Mehrdad Shahshahani. On nonlinear functions of linear combinations. *SIAM Journal on Scientific and Statistical Computing*, 5(1):175–191, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [DS87] **Dongarra:1987:FPA**  
J. J. Dongarra and D. C. Sorensen. A fully parallel algorithm for the symmetric eigenvalue problem. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S139–S154, March 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [DS89] **DAzevedo:1989:OIT**  
E. F. D’Azevedo and R. B. Simpson. On optimal interpolation triangle incidences. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1063–1075, November 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Dt90] **DeGoede:1990:VOE**  
E. D. De Goede and J. H. M. ten Thije Boonkamp. Vectoriza-
- [Dub91] **Dubrulle:1991:BGR**  
Augustin A. Dubrulle. Block Gauss reduction to Hessenberg form. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1245–1253, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Duff84a] **Duff:1984:DFD**  
I. S. Duff. Design features of a frontal code for solving sparse unsymmetric linear systems out-of-core. *SIAM Journal on Scientific and Statistical Computing*, 5(2):270–280, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Duff84b] **Duff:1984:DMS**  
Iain S. Duff. Direct methods for solving sparse systems of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 5(3):605–619, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Dut83] **Dutton:1983:MSI**  
Robert W. Dutton. Modeling of the silicon integrated-circuit design and manufacturing process. *SIAM Journal on Scientific and Statistical Computing*, 4(3):357–390, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- tion of the Odd–Even hopscotch scheme and the alternating direction implicit scheme for the two-dimensional Burgers equations. *SIAM Journal on Scientific and Statistical Computing*, 11(2):354–367, March 1990. CODEN SIJCD4. ISSN 0196-5204.

- [dv85] **deZeeuw:1985:CRM**  
P. M. de Zeeuw and E. J. van Asselt. The convergence rate of multi-level algorithms applied to the convection-diffusion equation. *SIAM Journal on Scientific and Statistical Computing*, 6(2):492–503, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [dv89] **deGroen:1989:SGM**  
P. P. N. de Groen and M. van Veldhuizen. A stabilized Galerkin method for convection-diffusion problems. *SIAM Journal on Scientific and Statistical Computing*, 10(2):274–297, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [EDRW91] **Eisenhut:1991:CAU**  
R. D. Eisenhut, R. S. Dittus, S. D. Roberts, and J. R. Wilson. Comparing averaged-out utilities of probability trees having random parameters. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1140–1161, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [EG92] **Elman:1992:LIM**  
Howard C. Elman and Gene H. Golub. Line iterative methods for cyclically reduced discrete convection-diffusion problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):339–363, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [EGJ<sup>+</sup>89] **Enright:1989:IMN**  
W. H. Enright, C. W. Gear, K. R. Jackson, L. R. Petzold, and R. D. Skeel. International Meeting on the Numerical Solution of Ordinary Differential Equations. *SIAM Journal on Scientific and Statistical Computing*, 10(5):913–1051, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [EGL<sup>+</sup>87] **Erisman:1987:EOU**  
A. M. Erisman, R. G. Grimes, J. G. Lewis, W. G. Poole, Jr., and H. D. Simon. Evaluation of orderings for unsymmetric sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 8(4):600–624, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [EGM84] **Embid:1984:MSS**  
Pedro Embid, Jonathan Goodman, and Andrew Majda. Multiple steady states for 1-D transonic flow. *SIAM Journal on Scientific and Statistical Computing*, 5(1):21–41, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [EHHR88] **Eisenstat:1988:MCA**  
S. C. Eisenstat, M. T. Heath, C. S. Henkel, and C. H. Romine. Modified cyclic algorithms for solving triangular systems on distributed-memory multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 9(3):589–600, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Ehr86] **Ehrlich:1986:NSA**  
Louis W. Ehrlich. The numerical Schwarz alternating proce-

- dure and SOR. *SIAM Journal on Scientific and Statistical Computing*, 7(3):989–993, July 1986. CODEN SIJCD4. ISSN 0196-5204. [Eld84b]
- [Eil86] J. C. Eilbeck. The pseudo-spectral method and path following in reaction-diffusion bifurcation studies. *SIAM Journal on Scientific and Statistical Computing*, 7(2):599–610, April 1986. CODEN SIJCD4. ISSN 0196-5204. **Eilbeck:1986:PSM**
- [Eis81] Stanley C. Eisenstat. Efficient implementation of a class of preconditioned conjugate gradient methods. *SIAM Journal on Scientific and Statistical Computing*, 2(1):1–4, March 1981. CODEN SIJCD4. ISSN 0196-5204. **Eisenstat:1981:EIC**
- [EL87] V. Ervin and W. Layton. On the approximation of derivatives of singularly perturbed boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 8(3):265–277, May 1987. CODEN SIJCD4. ISSN 0196-5204. **Ervin:1987:ADS**
- [Eld84a] Lars Eldén. An algorithm for the regularization of ill-conditioned, banded least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 5(1):237–254, March 1984. CODEN SIJCD4. ISSN 0196-5204. **Elden:1984:ARI**
- [Eld84b] Lars Eldén. An efficient algorithm for the regularization of ill-conditioned least squares problems with triangular Toeplitz matrix. *SIAM Journal on Scientific and Statistical Computing*, 5(1):229–236, March 1984. CODEN SIJCD4. ISSN 0196-5204. **Elden:1984:EAR**
- [Elm89] Howard C. Elman. Approximate Schur complement preconditioners on serial and parallel computers. *SIAM Journal on Scientific and Statistical Computing*, 10(3):581–605, May 1989. CODEN SIJCD4. ISSN 0196-5204. **Elman:1989:ASC**
- [EOV90] S. C. Eisenstat, J. M. Ortega, and C. T. Vaughan. Efficient polynomial preconditioning for the conjugate gradient method. *SIAM Journal on Scientific and Statistical Computing*, 11(5):859–872, September 1990. CODEN SIJCD4. ISSN 0196-5204. **Eisenstat:1990:EPP**
- [Eri85] Lars-Erik Eriksson. Practical three-dimensional mesh generation using transfinite interpolation. *SIAM Journal on Scientific and Statistical Computing*, 6(3):712–741, July 1985. CODEN SIJCD4. ISSN 0196-5204. **Eriksson:1985:PTD**
- [ES80] Björn Engquist and Tom Smedsaas. Automatic computer code generation for hyperbolic and **Engquist:1980:ACC**

- parabolic differential equations. *SIAM Journal on Scientific and Statistical Computing*, 1(2):249–259, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [ES86] Lars Eldén and Robert Schreiber. An application of systolic arrays to linear discrete ill-posed problems. *SIAM Journal on Scientific and Statistical Computing*, 7(3):892–903, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [ES88] M. Evans and T. Swartz. Sampling from Gauss rules. *SIAM Journal on Scientific and Statistical Computing*, 9(5):950–961, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [ESS81] Stanley C. Eisenstat, Martin H. Schultz, and Andrew H. Sherman. Algorithms and data structures for sparse symmetric Gaussian elimination. *SIAM Journal on Scientific and Statistical Computing*, 2(2):225–237, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [ESS82] Randall L. Eubank, Patricia L. Smith, and Philip W. Smith. On the computation of optimal designs for certain time series models with applications to optimal quantile selection for location or scale parameter estimation. *SIAM Journal on Scientific and Statistical Computing*, 3(2):238–249, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [ESS86] Howard C. Elman, Youcef Saad, and Paul E. Saylor. A hybrid Chebyshev Krylov subspace algorithm for solving nonsymmetric systems of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 7(3):840–855, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [ETW92] Herbert Edelsbrunner, Tiow Seng Tan, and Roman Waupotitsch. An  $O(n^2 \log n)$  time algorithm for the minmax angle triangulation. *SIAM Journal on Scientific and Statistical Computing*, 13(4):994–1008, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [EY88] D. J. Evans and W. S. Yousif. The solution of two-point boundary value problems by the alternating group explicit (AGE) method. *SIAM Journal on Scientific and Statistical Computing*, 9(3):474–484, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [FB84] F. N. Fritsch and J. Butland. A method for constructing local monotone piecewise cubic interpolants. *SIAM Journal on Scientific and Statistical Computing*, 5(2):300–304, June 1984. CODEN SIJCD4. ISSN 0196-5204.

**Elden:1986:ASA****Elman:1986:HCK****Evans:1988:SGR****Edelsbrunner:1992:TAM****Eisenstat:1981:ADS****Evans:1988:STP****Eubank:1982:COD****Fritsch:1984:MCL**

- [FG86] **Flury:1986:ASO**  
Bernhard N. Flury and Walter Gautschi. An algorithm for simultaneous orthogonal transformation of several positive definite symmetric matrices to nearly diagonal form. *SIAM Journal on Scientific and Statistical Computing*, 7(1):169–184, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [FGR92] **Fishman:1992:EBC**  
George S. Fishman, Boris L. Granovsky, and David S. Rubin. Evaluating best-case and worst-case variances when bounds are available. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1347–1360, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [FGS83] **Friedman:1983:MAS**  
Jerome H. Friedman, Eric Grosse, and Werner Stuetzle. Multidimensional additive spline approximation. *SIAM Journal on Scientific and Statistical Computing*, 4(2):291–301, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Fin88] **Fink:1988:HPM**  
A. M. Fink. How to Polish off median Polish. *SIAM Journal on Scientific and Statistical Computing*, 9(5):932–940, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Fin88] **Fishelov:1988:SMS**  
Dalia Fishelov. Spectral methods for the small disturbance equa-
- [Fis89] **Fishman:1989:MCC**  
George S. Fishman. Monte Carlo, control variates, and stochastic ordering. *SIAM Journal on Scientific and Statistical Computing*, 10(1):187–204, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Fis90a] **Fishelov:1990:VMS**  
Dalia Fishelov. Vortex methods for slightly viscous three-dimensional flow. *SIAM Journal on Scientific and Statistical Computing*, 11(3):399–424, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Fis90b] **Fishman:1990:SAU**  
George S. Fishman. Sensitivity analysis using the Monte Carlo acceptance-rejection method. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1164–1180, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [FJ86] **Flick:1986:GMC**  
Thomas E. Flick and Lee K. Jones. A generalization of the method of correlated sampling for numerical integration. *SIAM Journal on Scientific and Statistical Computing*, 7(3):1037–1040, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- tion of transonic flows. *SIAM Journal on Scientific and Statistical Computing*, 9(2):232–251, March 1988. CODEN SIJCD4. ISSN 0196-5204.

- Fletcher:1981:NPP**
- [Fle81] Roger Fletcher. A nonlinear programming problem in statistics (educational testing). *SIAM Journal on Scientific and Statistical Computing*, 2(3):257–267, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- Fletcher:1986:CEQ**
- [Fle86] R. Fletcher. Cancellation errors in quasi-Newton methods. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1387–1399, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- Flaherty:1980:CPT**
- [FM80] Joseph E. Flaherty and William Mathon. Collocation with polynomial and tension splines for singularly-perturbed boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 1(2):260–289, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- Funderlic:1981:SHS**
- [FM81] R. E. Funderlic and J. B. Mankin. Solution of homogeneous systems of linear equations arising from compartmental models. *SIAM Journal on Scientific and Statistical Computing*, 2(4):375–383, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- Fishman:1986:EEA**
- [FM86a] George S. Fishman and Louis R. Moore III. Erratum: “An exhaustive analysis of multiplicative congruential random number generators with modulus  $2^{31} - 1$ ”. *SIAM Journal on Scientific and Statistical Computing*, 7(3):1058, July 1986. CODEN SIJCD4. ISSN 0196-5204. URL [http://epubs.siam.org/sisc/resource/1/sjoc3/v7/i3/p1058\\_s1](http://epubs.siam.org/sisc/resource/1/sjoc3/v7/i3/p1058_s1); <http://link.aip.org/link/?SCE/7/1058/1>. See [FM86b].
- Fishman:1986:EAM**
- [FM86b] George S. Fishman and Louis R. Moore III. An exhaustive analysis of multiplicative congruential random number generators with modulus  $2^{31} - 1$ . *SIAM Journal on Scientific and Statistical Computing*, 7(1):24–45, January 1986. CODEN SIJCD4. ISSN 0196-5204. URL <http://link.aip.org/link/?SCE/7/24/1>. See erratum [FM86a].
- Frederickson:1991:NCR**
- [FM91] Paul O. Frederickson and Oliver A. McBryan. Normalized convergence rates for the PSMG method. *SIAM Journal on Scientific and Statistical Computing*, 12(1):221–229, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- Flaherty:1984:NMS**
- [FO84] Joseph E. Flaherty and Robert E. O’Malley, Jr. Numerical methods for stiff systems of two-point boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 5(4):865–886,



- December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [For80] Bengt Fornberg. A numerical method for conformal mappings. *SIAM Journal on Scientific and Statistical Computing*, 1(3):386–400, September 1980. CODEN SIJCD4. ISSN 0196-5204.
- [For84] Bengt Fornberg. A numerical method for conformal mapping of doubly connected regions. *SIAM Journal on Scientific and Statistical Computing*, 5(4):771–783, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [For89] P. A. Forsyth. Adaptive implicit criteria for two-phase flow with gravity and capillary pressure. *SIAM Journal on Scientific and Statistical Computing*, 10(2):227–252, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [For91] Peter A. Forsyth. A control volume finite element approach to NAPL groundwater contamination. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1029–1057, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Fos90] Leslie V. Foster. The probability of large diagonal elements in the  $QR$  factorization. *SIAM Journal on Scientific and Statistical Computing*, 11(3):531–544, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [FR92] Charbel Farhat and François-Xavier Roux. An unconventional domain decomposition method for an efficient parallel solution of large-scale finite element systems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):379–396, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Fra89] C. Fraley. Computational behavior of Gauss–Newton methods. *SIAM Journal on Scientific and Statistical Computing*, 10(3):515–532, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Fra90] Joel Franklin. Analytic continuation by the fast Fourier transform. *SIAM Journal on Scientific and Statistical Computing*, 11(1):112–122, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [FRB83] Wolfgang Fichtner, Donald J. Rose, and Randolph E. Bank. Semiconductor device simulation. *SIAM Journal on Scientific and Statistical Computing*, 4(3):391–415, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Fre92] Roland W. Freund. Conjugate gradient-type methods for linear

- systems with complex symmetric coefficient matrices. *SIAM Journal on Scientific and Statistical Computing*, 13(1):425–448, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [FS91] Graeme Fairweather and Rick D. Saylor. The reformulation and numerical solution of certain nonclassical initial-boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 12(1):127–144, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Fun88] Daniele Funaro. Computing the inverse of the Chebyshev collocation derivative. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1050–1057, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Gan90] Walter Gander. Algorithms for the polar decomposition. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1102–1115, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Gar82] E. C. Gartland, Jr. Discrete weighted mean approximation of a model convection-diffusion equation. *SIAM Journal on Scientific and Statistical Computing*, 3(4):460–472, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Gau82] Walter Gautschi. On generating orthogonal polynomials. *SIAM Journal on Scientific and Statistical Computing*, 3(3):289–317, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Gay81] David M. Gay. Computing optimal locally constrained steps. *SIAM Journal on Scientific and Statistical Computing*, 2(2):186–197, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Gea86] C. W. Gear. Maintaining solution invariants in the numerical solution of ODEs. *SIAM Journal on Scientific and Statistical Computing*, 7(3):734–743, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Gea87] C. W. Gear. Editorial. *SIAM Journal on Scientific and Statistical Computing*, 8(1):vi, ??? 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Gea88] C. W. Gear. Differential-algebraic equation index transformations. *SIAM Journal on Scientific and Statistical Computing*, 9(1):39–47, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Gen82] Alan C. Genz. A Lagrange extrapolation algorithm for se-

- quences of approximations to multiple integrals. *SIAM Journal on Scientific and Statistical Computing*, 3(2):160–172, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Geo81] Kurt Georg. On tracing an implicitly defined curve by quasi-Newton steps and calculating bifurcation by local perturbations. *SIAM Journal on Scientific and Statistical Computing*, 2(1):35–50, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Geo91] Kurt Georg. Approximation of integrals for boundary element methods. *SIAM Journal on Scientific and Statistical Computing*, 12(2):443–453, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [GGL<sup>+</sup>88] James Glimm, John Grove, Brent Lindquist, Oliver A. McBryan, and Gretar Tryggvason. The bifurcation of tracked scalar waves. *SIAM Journal on Scientific and Statistical Computing*, 9(1):61–79, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GGS87] A. Gerasoulis, M. D. Grigoriadis, and Liping Sun. A fast algorithm for Trummer’s problem. *SIAM Journal on Scientific and Statistical Computing*, 8(1): S135–S138, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [GH92] Peter W. Glynn and Philip Heidelberger. Analysis of initial transient deletion for parallel steady-state simulations. *SIAM Journal on Scientific and Statistical Computing*, 13(4):904–922, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [GHLN88] Alan George, Michael T. Heath, Joseph Liu, and Esmond Ng. Sparse Cholesky factorization on a local-memory multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 9(2):327–340, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GHN83] Alan George, Michael T. Heath, and Esmond Ng. A comparison of some methods for solving sparse linear least-squares problems. *SIAM Journal on Scientific and Statistical Computing*, 4(2):177–187, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [GHN84] Alan George, Michael T. Heath, and Esmond Ng. Solution of sparse underdetermined systems of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 5(4):988–997, December 1984. CODEN SIJCD4. ISSN 0196-5204.

**Georg:1981:TID****Glynn:1992:AIT****Georg:1991:AIB****George:1988:SCF****Glimm:1988:BTS****George:1983:CSM****Gerasoulis:1987:FAT****George:1984:SSU**

- George:1981:SLS**
- [GHP81] J. A. George, M. T. Heath, and R. J. Plemmons. Solution of large-scale sparse least squares problems using auxiliary storage. *SIAM Journal on Scientific and Statistical Computing*, 2(4):416–429, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- Gilquin:1989:GSC**
- [Gil89] Hervé Gilquin. Glimm’s scheme and conservation laws of mixed type. *SIAM Journal on Scientific and Statistical Computing*, 10(1):133–153, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- Girard:1987:ORR**
- [Gir87] Didier A. Girard. Optimal regularized reconstruction in computerized tomography. *SIAM Journal on Scientific and Statistical Computing*, 8(6):934–950, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- Gilbert:1982:CAC**
- [GJ82] Robert P. Gilbert and Jarl Jensen. A computational approach for constructing singular solutions of one-dimensional pseudoparabolic and metaparabolic equations. *SIAM Journal on Scientific and Statistical Computing*, 3(1):111–125, March 1982. CODEN SIJCD4. ISSN 0196-5204.
- Gallivan:1987:UBL**
- [GJM87] Kyle Gallivan, William Jalby, and Ulrike Meier. The use of BLAS3 in linear algebra on a parallel processor with a hierarchical memory. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1079–1084, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- Gupta:1986:MPQ**
- [GJW86] Pushpa Lata Gupta, Riley T. James, and Thomas J. White. Misclassification probabilities for quadratic discrimination. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1400–1417, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- Gropp:1988:CPI**
- [GK88] William D. Gropp and David E. Keyes. Complexity of parallel implementation of domain decomposition techniques for elliptic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 9(2):312–326, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- Gropp:1992:DDL**
- [GK92a] William D. Gropp and David E. Keyes. Domain decomposition with local mesh refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(4):967–993, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- Gropp:1992:PPD**
- [GK92b] William D. Gropp and David E. Keyes. Parallel performance of domain-decomposed preconditioned Krylov methods for

- PDEs with locally uniform refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(1):128–145, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [GKL88] R. S. Garfinkel, A. S. Kunnathur, and G. E. Liepins. Error localization for erroneous data: continuous data, linear constraints. *SIAM Journal on Scientific and Statistical Computing*, 9(5):922–931, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GKR85] R. Glowinski, H. B. Keller, and L. Reinhart. Continuation-conjugate gradient methods for the least squares solution of nonlinear boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 6(4):793–832, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [GL81] Roger G. Grimes and John G. Lewis. Condition number estimation for sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 2(4):384–388, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- [GLN88] Alan George, Joseph Liu, and Esmond Ng. A data structure for sparse  $QR$  and  $LU$  factorizations. *SIAM Journal on Scientific and Statistical Computing*, 9(1):100–121, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GLO81] David Gottlieb, Liviu Lustman, and Steven A. Orszag. Spectral calculations of one-dimensional inviscid compressible flows. *SIAM Journal on Scientific and Statistical Computing*, 2(3):296–310, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- [GMB88] John L. Gustafson, Gary R. Montry, and Robert E. Benner. Development of parallel methods for a 1024-processor hypercube. *SIAM Journal on Scientific and Statistical Computing*, 9(4):609–638, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GMMS86] J. Glimm, O. McBryan, R. Menikoff, and D. H. Sharp. Front tracking applied to Rayleigh–Taylor instability. *SIAM Journal on Scientific and Statistical Computing*, 7(1):230–251, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [GMSW83] Philip E. Gill, Walter Murray, Michael A. Saunders, and Margaret H. Wright. Computing forward-difference intervals for numerical optimization. *SIAM Journal on Scientific and Statistical Computing*, 4(2):310–321, June 1983. CODEN SIJCD4. ISSN 0196-5204.

**Garfinkel:1988:ELE**

**Gottlieb:1981:SCO**

**Glowinski:1985:CCG**

**Gustafson:1988:DPM**

**Grimes:1981:CNE**

**Glimm:1986:FTA**

**George:1988:DSS**

**Gill:1983:CFD**

- Gill:1984:SMM**
- [GMSW84] Philip E. Gill, Walter Murray, Michael A. Saunders, and Margaret H. Wright. Sparse matrix methods in optimization. *SIAM Journal on Scientific and Statistical Computing*, 5(3):562–589, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- Golub:1986:CBS**
- [GMT86] G. H. Golub, P. Manneback, and Ph. L. Toint. A comparison between some direct and iterative methods for certain large scale geodetic least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 7(3):799–816, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- George:1985:IGE**
- [GN85a] Alan George and Esmond Ng. An implementation of Gaussian elimination with partial pivoting for sparse systems. *SIAM Journal on Scientific and Statistical Computing*, 6(2):390–409, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- Gourgeon:1985:CAO**
- [GN85b] Hervé Gourgeon and Jorge Nocedal. A conic algorithm for optimization. *SIAM Journal on Scientific and Statistical Computing*, 6(2):253–267, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- George:1986:ORS**
- [GN86] Alan George and Esmond Ng. Orthogonal reduction of sparse matrices to upper triangular form using Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 7(2):460–472, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- George:1987:SFS**
- [GN87] Alan George and Esmond Ng. Symbolic factorization for sparse Gaussian elimination with partial pivoting. *SIAM Journal on Scientific and Statistical Computing*, 8(6):877–898, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- George:1988:CSF**
- [GN88] Alan George and Esmond Ng. On the complexity of sparse *QR* and *LU* factorization of finite-element matrices. *SIAM Journal on Scientific and Statistical Computing*, 9(5):849–861, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- Gustafsson:1982:SBA**
- [GO82] Bertil Gustafsson and Joseph Olinger. Stable boundary approximations for implicit time discretizations for gas dynamics. *SIAM Journal on Scientific and Statistical Computing*, 3(4):408–421, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- Gurwitz:1989:SQP**
- [GO89] Chaya Bleich Gurwitz and Michael L. Overton. Sequential quadratic programming methods based on approximating a projected Hessian matrix. *SIAM*

- Journal on Scientific and Statistical Computing*, 10(4):631–653, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [GP88a] John R. Gilbert and Tim Peierls. Sparse partial pivoting in time proportional to arithmetic operations. *SIAM Journal on Scientific and Statistical Computing*, 9(5):862–874, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GP88b] Max D. Gunzburger and Janet S. Peterson. Finite-element methods for the streamfunction-vorticity equations: boundary-condition treatments and multiply connected domains. *SIAM Journal on Scientific and Statistical Computing*, 9(4):650–668, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [GR85] Alan George and Hamza Rashwan. Auxiliary storage methods for solving finite element systems. *SIAM Journal on Scientific and Statistical Computing*, 6(4):882–910, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [GR88] George A. Geist and Charles H. Romine. *LU* factorization algorithms on distributed-memory multiprocessor architectures. *SIAM Journal on Scientific and Statistical Computing*, 9(4):639–649, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Gre82] John Greenstadt. The cell discretization algorithm for elliptic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 3(3):261–288, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Gre85] John Greenstadt. A quasi-quasi-Newton method for generating quasi-Choleski factors. *SIAM Journal on Scientific and Statistical Computing*, 6(2):425–437, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Gre86] John Greenstadt. On the reconciliation of clashing boundary conditions in cell discretization. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1282–1306, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Gre90] L. Greengard. Potential flow in channels. *SIAM Journal on Scientific and Statistical Computing*, 11(4):603–620, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Gre91] John Greenstadt. Cell discretization of nonselfadjoint linear elliptic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1074–1108, September 1991.

1991. CODEN SIJCD4. ISSN 0196-5204.
- [GRMM92] **Gomes-Ruggiero:1992:CAS**  
 Márcia A. Gomes-Ruggiero, José Mario Martínez, and Antonio Carlos Moretti. Comparing algorithms for solving sparse nonlinear systems of equations. *SIAM Journal on Scientific and Statistical Computing*, 13(2):459–483, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [GS83] **Gropp:1980:TMM**  
 William D. Gropp. A test of moving mesh refinement for 2-D scalar hyperbolic problems. *SIAM Journal on Scientific and Statistical Computing*, 1(2):191–197, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Gro80] **Gropp:1987:LUM**  
 William D. Gropp. Local uniform mesh refinement with moving grids. *SIAM Journal on Scientific and Statistical Computing*, 8(3):292–304, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Gro87a] **Grosch:1987:ANS**  
 Chester E. Grosch. Adapting a Navier–Stokes code to the ICL-DAP. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S96–S117, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Gro87b] **Grcar:1981:CPT**  
 J. Grcar and A. Sameh. On certain parallel Toeplitz linear system solvers. *SIAM Journal on Scientific and Statistical Computing*, 2(2):238–256, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [GS83] **Gear:1983:ISL**  
 C. W. Gear and Y. Saad. Iterative solution of linear equations in ODE codes. *SIAM Journal on Scientific and Statistical Computing*, 4(4):583–601, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [GS89] **Gear:1989:SSS**  
 C. W. Gear and H. D. Simon. Special section on sparse matrix algorithms on supercomputers. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1135, 1989. CODEN SIJCD4. ISSN 0196-5204.
- [GS91a] **Gotze:1991:SRD**  
 J. Götze and U. Schwiegelshohn. A square root and division free Givens rotation for solving least squares problems on systolic arrays. *SIAM Journal on Scientific and Statistical Computing*, 12(4):800–807, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [GS91b] **Greengard:1991:FGT**  
 Leslie Greengard and John Strain. The fast Gauss transform. *SIAM Journal on Scientific and Statistical Computing*, 12(1):79–94, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [GS92a] **Gallopoulos:1992:ESP**  
 E. Gallopoulos and Y. Saad. Efficient solution of parabolic equations by Krylov approximation



- methods. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1236–1264, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [GS92b] John R. Gilbert and Robert Schreiber. Highly parallel sparse Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1151–1172, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [GSBB87] I. Gladwell, L. F. Shampine, L. S. Baca, and R. W. Brankin. Practical aspects of interpolation in Runge–Kutta codes. *SIAM Journal on Scientific and Statistical Computing*, 8(3):322–341, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [GSS86] D. F. Griffiths and J. M. Sanz-Serna. On the Scope of the method of modified equations. *SIAM Journal on Scientific and Statistical Computing*, 7(3):994–1008, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [GT90] Doron Gill and Eitan Tadmor. An  $O(N^2)$  method for computing the eigensystem of  $N \times N$  symmetric tridiagonal matrices by the divide and conquer approach. *SIAM Journal on Scientific and Statistical Computing*, 11(1):161–173, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Gup85] Gopal K. Gupta. Description and evaluation of a stiff ODE code DSTIFF. *SIAM Journal on Scientific and Statistical Computing*, 6(4):939–950, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Gus88] Bertil Gustafsson. Far-field boundary conditions for time-dependent hyperbolic systems. *SIAM Journal on Scientific and Statistical Computing*, 9(5):812–828, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Gut83] Martin H. Gutknecht. Numerical experiments on solving Theodorsen’s integral equation for conformal maps with the fast Fourier transform and various nonlinear iterative methods. *SIAM Journal on Scientific and Statistical Computing*, 4(1):1–30, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [GV87a] C. W. Gear and R. G. Voigt. A note from the Editors. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S1, ??? 1987. CODEN SIJCD4. ISSN 0196-5204.
- [GV87b] C. W. Gear and R. G. Voigt. Second Conference on Parallel

- Processing for Scientific Computing. *SIAM Journal on Scientific and Statistical Computing*, 8 (2):S139–S287, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Hag91] **Hagstrom:1991:CDB**  
Thomas Hagstrom. Conditions at the downstream boundary for simulations of viscous, incompressible flow. *SIAM Journal on Scientific and Statistical Computing*, 12(4):843–858, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [GW91] **Gu:1991:MGG**  
Chong Gu and Grace Wahba. Minimizing GCV/GML scores with multiple smoothing parameters via the Newton method. *SIAM Journal on Scientific and Statistical Computing*, 12(2):383–398, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Hal81] **Hald:1981:CRM**  
Ole H. Hald. Convergence of random methods for a reaction-diffusion equation. *SIAM Journal on Scientific and Statistical Computing*, 2(1):85–94, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [GWJ84] **Gunzburger:1984:FEM**  
M. D. Gunzburger, H. G. Wood, and J. A. Jordan. A finite element method for gas centrifuge flow problems. *SIAM Journal on Scientific and Statistical Computing*, 5(1):78–94, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Hal86] **Hald:1986:CRM**  
Ole H. Hald. Convergence of a random method with creation of vorticity. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1373–1386, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Hac81] **Hackbusch:1981:FNS**  
Wolfgang Hackbusch. Fast numerical solution of time-periodic parabolic problems by a multigrid method. *SIAM Journal on Scientific and Statistical Computing*, 2(2):198–206, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Han86] **Hanson:1986:LLS**  
Richard J. Hanson. Linear least squares with bounds and linear constraints. *SIAM Journal on Scientific and Statistical Computing*, 7(3):826–834, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Hag84] **Hager:1984:CE**  
William W. Hager. Condition estimates. *SIAM Journal on Scientific and Statistical Computing*, 5 (2):311–316, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Han90] **Hansen:1990:TSV**  
Per Christian Hansen. Truncated singular value decomposition solutions to discrete ill-posed problems with ill-determined numerical rank. *SIAM Journal on Sci-*

- entific and Statistical Computing*, 11(3):503–518, May 1990. CODEN SIJCD4. ISSN 0196-5204. [HC87]
- [Har89] V. Hari. On the quadratic convergence of the serial singular value decomposition Jacobi methods for triangular matrices. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1076–1096, November 1989. CODEN SIJCD4. ISSN 0196-5204. [HD92]
- [HB85] S. I. Hariharan and Alvin Bayliss. Radiation of sound from unflanged cylindrical ducts. *SIAM Journal on Scientific and Statistical Computing*, 6(2):285–296, April 1985. CODEN SIJCD4. ISSN 0196-5204. [Hea82]
- [HB90] Catherine Hurley and Andreas Buja. Analyzing high-dimensional data with motion graphics. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1193–1211, November 1990. CODEN SIJCD4. ISSN 0196-5204. [Hea84]
- [HC83] Robert P. Hatcher and Y. M. Chen. An iterative method for solving inverse problems of a nonlinear wave equation. *SIAM Journal on Scientific and Statistical Computing*, 4(2):149–163, June 1983. CODEN SIJCD4. ISSN 0196-5204. [Hei88]
- [Henshaw:1987:MCM] W. D. Henshaw and G. Chesshire. Multigrid on composite meshes. *SIAM Journal on Scientific and Statistical Computing*, 8(6):914–923, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Harris:1992:IMM] T. J. Harris and J. H. Davis. An iterative method for matrix spectral factorization. *SIAM Journal on Scientific and Statistical Computing*, 13(2):531–540, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Heath:1982:SEA] Michael T. Heath. Some extensions of an algorithm for sparse linear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 3(2):223–237, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Heath:1984:NML] Michael T. Heath. Numerical methods for large sparse linear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 5(3):497–513, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Heidelberger:1988:DES] Philip Heidelberger. Discrete event simulations and parallel processing: statistical properties. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1114–1132, November 1988. CODEN SIJCD4. ISSN 0196-5204.

- [Hei91] Wilhelm Heinrichs. A stabilized treatment of the biharmonic operator with spectral methods. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1162–1172, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Hei91] **Heinrichs:1991:STB**
- [Hel83] Carl W. Helstrom. Comment: “Distribution of quadratic forms in normal random variables—evaluation by numerical integration” [SIAM J. Sci. Statist. Comput. 1 (1980), no. 4, 438–448, MR 82g:62037] by S. O. Rice. *SIAM Journal on Scientific and Statistical Computing*, 4(2):353–356, June 1983. CODEN SIJCD4. ISSN 0196-5204. See [Ric80].
- [Hel83] **Helstrom:1983:CDQ**
- [Hel89] Carl W. Helstrom. Distribution of the average power of a normal time series. *SIAM Journal on Scientific and Statistical Computing*, 10(3):432–446, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Hel89] **Helstrom:1989:DAP**
- [Hen86] J. P. Hennart. A general family of nodal schemes. *SIAM Journal on Scientific and Statistical Computing*, 7(1):264–287, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Hen86] **Hennart:1986:GFN**
- [HI83] Don E. Heller and Ilse C. F. Ipsen. Systolic networks for orthogonal decompositions. *SIAM Journal on Scientific and Statistical Computing*, 4(2):261–269, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [HI83] **Heller:1983:SNO**
- [Hig86a] Nicholas J. Higham. Computing the polar decomposition— with applications. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1160–1174, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Hig86a] **Higham:1986:CPD**
- [Hig86b] Nicholas J. Higham. Efficient algorithms for computing the condition number of a tridiagonal matrix. *SIAM Journal on Scientific and Statistical Computing*, 7(1):150–165, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Hig86b] **Higham:1986:EAC**
- [Hig89] Desmond J. Higham. Defect estimation in Adams PECE codes. *SIAM Journal on Scientific and Statistical Computing*, 10(5):964–976, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Hig89] **Higham:1989:DEA**
- [Hig90] Nicholas J. Higham. Experience with a matrix norm estimator. *SIAM Journal on Scientific and Statistical Computing*, 11(4):804–809, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Hig90] **Higham:1990:EMN**

- [Hig91] **Higham:1991:RKD**  
Desmond J. Higham. Runge–Kutta defect control using Hermite–Birkhoff interpolation. *SIAM Journal on Scientific and Statistical Computing*, 12(5):991–999, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [HJ89] **Ho:1989:SBT**  
Ching-Tien T. Ho and S. Lennart Johnsson. Spanning balanced trees in Boolean cubes. *SIAM Journal on Scientific and Statistical Computing*, 10(4):607–630, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [HJS84] **Haymond:1984:CMM**  
R. E. Haymond, J. P. Jarvis, and D. R. Shier. Computational methods for minimum spanning tree algorithms. *SIAM Journal on Scientific and Statistical Computing*, 5(1):157–174, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [HJS92] **Hansen:1992:NBB**  
Pierre Hansen, Brigitte Jaumard, and Gilles Savard. New branch-and-bound rules for linear bilevel programming. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1194–1217, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [HK86] **Hagstrom:1986:NCT**  
Thomas Hagstrom and H. B. Keller. The numerical calculation of traveling wave solutions of nonlinear parabolic equations. *SIAM Journal on Scientific and Statistical Computing*, 7(3):978–988, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [HL90] **Ho:1990:OTS**  
Ching-Tien Ho and S. Lennart Johnsson. Optimizing tridiagonal solvers for alternating direction methods on Boolean cube multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 11(3):563–592, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [HLPW86] **Heath:1986:CSV**  
M. T. Heath, A. J. Laub, C. C. Paige, and R. C. Ward. Computing the singular value decomposition of a product of two matrices. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1147–1159, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [HLS85] **Hairer:1985:FNS**  
E. Hairer, Ch. Lubich, and M. Schlichte. Fast numerical solution of nonlinear Volterra convolution equations. *SIAM Journal on Scientific and Statistical Computing*, 6(3):532–541, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [HM83] **Hoppensteadt:1983:EMN**  
F. C. Hoppensteadt and W. L. Miranker. An extrapolation method for the numerical solution of singular perturbation problems. *SIAM Journal on Scientific and Statistical Computing*, 4(4):612–625, December

1983. CODEN SIJCD4. ISSN 0196-5204.
- [HM88] J. P. Hennart and E. H. Mund. On the  $h$ - and  $p$ -versions of the extrapolated Gordon's projector with applications to elliptic equations. *SIAM Journal on Scientific and Statistical Computing*, 9(5):773–791, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [HN81] Richard J. Hanson and Michael J. Norris. Analysis of measurements based on the singular value decomposition. *SIAM Journal on Scientific and Statistical Computing*, 2(3):363–373, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- [HP84] W. J. Harrod and R. J. Plemmons. Comparison of some direct methods for computing stationary distributions of Markov chains. *SIAM Journal on Scientific and Statistical Computing*, 5(2):453–469, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [HP89] S. I. Hariharan and Yu Ping. Linear and nonlinear acoustic wave propagation in the atmosphere. *SIAM Journal on Scientific and Statistical Computing*, 10(3):488–514, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [HP91] Charles S. Henkel and Robert J. Plemmons. Recursive least squares on a hypercube multiprocessor using the covariance factorization. *SIAM Journal on Scientific and Statistical Computing*, 12(1):95–106, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [HPW84] M. T. Heath, R. J. Plemmons, and R. C. Ward. Sparse orthogonal schemes for structural optimization using the force method. *SIAM Journal on Scientific and Statistical Computing*, 5(3):514–532, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [HR85] Carl W. Helstrom and James A. Ritcey. Evaluation of the noncentral  $F$ -distribution by numerical contour integration. *SIAM Journal on Scientific and Statistical Computing*, 6(3):505–514, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [HR87] Peter Hoffman and K. C. Reddy. Numerical differentiation by high order interpolation. *SIAM Journal on Scientific and Statistical Computing*, 8(6):979–987, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [HR88] Michael T. Heath and Charles H. Romine. Parallel solution of tri-

- angular systems on distributed-memory multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 9(3):558–588, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [HR90] Jacques Huitfeldt and Axel Ruhe. A new algorithm for numerical path following applied to an example from hydrodynamical flow. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1181–1192, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [HS85] G. Hall and M. B. Suleiman. A single code for the solution of stiff and nonstiff ODE’s. *SIAM Journal on Scientific and Statistical Computing*, 6(3):684–697, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [HS90] Nicholas J. Higham and Robert S. Schreiber. Fast polar decomposition of an arbitrary matrix. *SIAM Journal on Scientific and Statistical Computing*, 11(4):648–655, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [HSS92] Per Christian Hansen, Takashi Sekii, and Hiromoto Shibahashi. The modified truncated SVD method for regularization in general form. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1142–1150, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [HSST92] O. Heinrichsberger, S. Selberherr, M. Stiftinger, and K. P. Traar. Fast iterative solution of carrier continuity equations for three-dimensional device simulation. *SIAM Journal on Scientific and Statistical Computing*, 13(1):289–306, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [HT90] Louis H. Howell and Lloyd N. Trefethen. A modified Schwarz–Christoffel transformation for elongated regions. *SIAM Journal on Scientific and Statistical Computing*, 11(5):928–949, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- [HV87] Vjieran Hari and Krevšimir Veselić. On Jacobi methods for singular value decompositions. *SIAM Journal on Scientific and Statistical Computing*, 8(5):741–754, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Hym83] James M. Hyman. Accurate monotonicity preserving cubic interpolation. *SIAM Journal on Scientific and Statistical Computing*, 4(4):645–654, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [HZ91] Laurie Hulbert and Earl Zmijewski. Limiting communication in

**Huitfeldt:1990:NAN****Heinrichsberger:1992:FIS****Hall:1985:SCS****Howell:1990:MSC****Hari:1987:JMS****Higham:1990:FPD****Hyman:1983:AMP****Hansen:1992:MTS****Hulbert:1991:LCP**

- parallel sparse Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1184–1197, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [IIMPL85] D. Isaacson, E. L. Isaacson, D. Marchesin, and P. J. Paes-Leme. Numerical analysis of spectral properties of coupled oscillator Schrödinger operators. III. the doubling algorithm. *SIAM Journal on Scientific and Statistical Computing*, 6(1):158–168, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [JA84] **Isaacson:1985:NAS**  
A. Jennings and M. A. Ajiz. Incomplete methods for solving  $A^T Ax = b$ . *SIAM Journal on Scientific and Statistical Computing*, 5(4):978–987, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Jar86] **Jarausch:1986:AGR**  
Helmut Jarausch. On an adaptive grid refining technique for finite element approximations. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1105–1120, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [IJ90] **Ipsen:1990:SST**  
Ilse C. F. Ipsen and Elizabeth R. Jessup. Solving the symmetric tridiagonal eigenvalue problem on the hypercube. *SIAM Journal on Scientific and Statistical Computing*, 11(2):203–229, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [JB83] **Joe:1983:EPM**  
Barry Joe and Richard Bartels. An exact penalty method for constrained, discrete, linear  $\ell_\infty$  data fitting. *SIAM Journal on Scientific and Statistical Computing*, 4(1):69–84, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [IKK91] **Ito:1991:NSA**  
K. Ito, M. Kroller, and K. Kunisch. A numerical study of an augmented Lagrangian method for the estimation of parameters in elliptic systems. *SIAM Journal on Scientific and Statistical Computing*, 12(4):884–910, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Iye88] **Iyengar:1988:ENP**  
Satish Iyengar. Evaluation of normal probabilities of symmetric regions. *SIAM Journal on Scientific and Statistical Computing*, 9(3):418–423, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [JB85] **Jespersen:1985:AIP**  
Dennis C. Jespersen and Pieter G. Buning. Accelerating an iterative process by explicit annihilation. *SIAM Journal on Scientific and Statistical Computing*, 6(3):639–651, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [JD89] **Jainandunsing:1989:NCP**  
K. Jainandunsing and E. F. Deprettere. A new class of par-



- allel algorithms for solving systems of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 10(5):880–912, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Joe89] **Joe:1989:TDT**  
Barry Joe. Three-dimensional triangulations from local transformations. *SIAM Journal on Scientific and Statistical Computing*, 10(4):718–741, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [JI92] Elizabeth R. Jessup and Ilse C. F. Ipsen. Improving the accuracy of inverse iteration. *SIAM Journal on Scientific and Statistical Computing*, 13(2):550–572, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Joh87] **Jessup:1992:IAI**  
S. Lennart Johnsson. Solving tridiagonal systems on ensemble architectures. *SIAM Journal on Scientific and Statistical Computing*, 8(3):354–392, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [JJ88] Robert S. Jewett and David R. Judkins. Multivariate stratification with size constraints. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1091–1097, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Jor87] **Jewett:1988:MSS**  
Harry F. Jordan. Interpreting parallel processor performance measurements. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S220–S226, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [JMPW92] Wayne Joubert, Thomas A. Manteuffel, Seymour Parter, and Sze-Ping Wong. Preconditioning second-order elliptic operators: Experiment and theory. *SIAM Journal on Scientific and Statistical Computing*, 13(1):259–288, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [JP91] **Jordan:1987:IPP**  
W. Jalby and B. Philippe. Stability analysis and improvement of the block Gram–Schmidt algorithm. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1058–1073, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Joe86] Barry Joe. Delaunay triangular meshes in convex polygons. *SIAM Journal on Scientific and Statistical Computing*, 7(2):514–539, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [JSS87] **Joe:1986:DTM**  
S. Lennart Johnsson, Youcef Saad, and Martin H. Schultz. Alternating direction methods on multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 8(5):686–700,

- September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [JT87] Richard H. Jones and Peter V. Tryon. Continuous time series models for unequally spaced data applied to modeling atomic clocks. *SIAM Journal on Scientific and Statistical Computing*, 8(1):71–81, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [JTW89] Thormod Johansen, Aslak Tveito, and Ragnar Winther. A Riemann solver for a two-phase multicomponent process. *SIAM Journal on Scientific and Statistical Computing*, 10(5):846–879, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [KA87] Robert Kohn and Craig F. Anisley. A new algorithm for spline smoothing based on smoothing a stochastic process. *SIAM Journal on Scientific and Statistical Computing*, 8(1):33–48, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Kåg86] Bo Kågström. RGSVD — an algorithm for computing the Kronecker structure and reducing subspaces of singular  $A - \lambda B$  pencils. *SIAM Journal on Scientific and Statistical Computing*, 7(1):185–211, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Kat89] Jacob Katzenelson. Computational structure of the  $N$ -body problem. *SIAM Journal on Scientific and Statistical Computing*, 10(4):787–815, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Kau83] Linda Kaufman. Matrix methods for queuing problems. *SIAM Journal on Scientific and Statistical Computing*, 4(3):525–552, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [KB84] R. N. Kapur and J. C. Browne. Techniques for solving block tridiagonal systems on reconfigurable array computers. *SIAM Journal on Scientific and Statistical Computing*, 5(3):701–719, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [KC90] C.-C. Jay Kuo and Tony F. Chan. Two-color Fourier analysis of iterative algorithms for elliptic problems with red/black ordering. *SIAM Journal on Scientific and Statistical Computing*, 11(4):767–793, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Kea83] Ralph Baker Kearfott. Some general bifurcation techniques. *SIAM Journal on Scientific and Statistical Computing*, 4(1):52–68, March 1983. CODEN SIJCD4. ISSN 0196-5204.

- [Kel83] **Keller:1983:BAP**  
Herbert B. Keller. The bordering algorithm and path following near singular points of higher nullity. *SIAM Journal on Scientific and Statistical Computing*, 4(4):573–582, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Kem87] **Kempthorne:1987:NSD**  
Peter J. Kempthorne. Numerical specification of discrete least favorable prior distributions. *SIAM Journal on Scientific and Statistical Computing*, 8(2):171–184, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Ker88] **Kerkhoven:1988:EGM**  
Thomas Kerkhoven. On the effectiveness of Gummel’s method. *SIAM Journal on Scientific and Statistical Computing*, 9(1):48–60, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [KF85] **Katz:1985:TSR**  
I. Norman Katz and Mark A. Franklin. Two strategies for root finding on multiprocessor systems. *SIAM Journal on Scientific and Statistical Computing*, 6(2):314–333, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [KG87] **Keyes:1987:CDD**  
David E. Keyes and William D. Gropp. A comparison of domain decomposition techniques for elliptic partial differential equations and their parallel implementation. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S166–S202, March 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [Kiw89] **Kiwiel:1989:DMC**  
Krzysztof C. Kiwiel. A dual method for certain positive semidefinite quadratic programming problems. *SIAM Journal on Scientific and Statistical Computing*, 10(1):175–186, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [KK92a] **Ku:1992:MPF**  
Ta-Kang Ku and C.-C. Jay Kuo. A minimum-phase *LU* factorization preconditioner for Toeplitz matrices. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1470–1487, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [KK92b] **Ku:1992:SFP**  
Takang Ku and C.-C. Jay Kuo. On the spectrum of a family of preconditioned block Toeplitz matrices. *SIAM Journal on Scientific and Statistical Computing*, 13(4):948–966, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [KL88] **Kuo:1988:MDF**  
C.-C. Jay Kuo and Bernard C. Levy. Mode-dependent finite-difference discretization of linear homogeneous differential equations. *SIAM Journal on Scientific and Statistical Computing*,

- 9(6):992–1015, November 1988. CODEN SIJCD4. ISSN 0196-5204. [KN80]
- [KL91] Charles Kenney and Alan J. Laub. Polar decomposition and matrix sign function condition estimates. *SIAM Journal on Scientific and Statistical Computing*, 12(3):488–504, May 1991. CODEN SIJCD4. ISSN 0196-5204. **Kenney:1991:PDM**
- [KLM87] C.-C. Jay Kuo, Bernard C. Levy, and Bruce R. Musicus. A local relaxation method for solving elliptic PDEs on mesh-connected arrays. *SIAM Journal on Scientific and Statistical Computing*, 8(4):550–573, July 1987. CODEN SIJCD4. ISSN 0196-5204. **Kuo:1987:LRM**
- [KM80] Gregory A. Kriegsmann and Cathleen S. Morawetz. Solving the Helmholtz equation for exterior problems with variable index of refraction. I. *SIAM Journal on Scientific and Statistical Computing*, 1(3):371–385, September 1980. CODEN SIJCD4. ISSN 0196-5204. **Kriegsmann:1980:SHE**
- [KMM84] E. J. Kansa, D. L. Morgan, Jr., and L. K. Morris. A simplified moving finite difference scheme: application to dense gas dispersion. *SIAM Journal on Scientific and Statistical Computing*, 5(3):667–683, September 1984. CODEN SIJCD4. ISSN 0196-5204. **Kansa:1984:SMF**
- [Kautsky:1980:EMC] J. Kautský and N. K. Nichols. Equidistributing meshes with constraints. *SIAM Journal on Scientific and Statistical Computing*, 1(4):499–511, December 1980. CODEN SIJCD4. ISSN 0196-5204. **Kautsky:1980:EMC**
- [Kautsky:1982:SRD] Jaroslav Kautsky and Nancy K. Nichols. Smooth regrading of discretized data. *SIAM Journal on Scientific and Statistical Computing*, 3(2):145–159, June 1982. CODEN SIJCD4. ISSN 0196-5204. **Kautsky:1982:SRD**
- [Knü86] Leo Knüsel. Computation of the chi-square and Poisson distribution. *SIAM Journal on Scientific and Statistical Computing*, 7(3):1022–1036, July 1986. CODEN SIJCD4. ISSN 0196-5204. **Knusel:1986:CCS**
- [Kop89] David A. Kopriva. Computation of hyperbolic equations on complicated domains with patched and overset Chebyshev grids. *SIAM Journal on Scientific and Statistical Computing*, 10(1):120–132, January 1989. CODEN SIJCD4. ISSN 0196-5204. **Kopriva:1989:CHE**
- [KP91] S. R. Karpik and W. R. Peltier. Multigrid methods for the solution of Poisson’s equation in a thick spherical shell. *SIAM Journal on Scientific and Statistical*

- Computing*, 12(3):681–694, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [KPC90] M. M. Konstantinov, P. Hr. Petkov, and N. D. Christov. Perturbation analysis of matrix quadratic equations. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1159–1163, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [KR88] Ohannes A. Karakashian and William Rust. On the parallel implementation of implicit Runge–Kutta methods. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1085–1090, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Kre83] Barbro Kreiss. Construction of a curvilinear Grid. *SIAM Journal on Scientific and Statistical Computing*, 4(2):270–279, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Kri82] Gregory A. Kriegsmann. Radiation conditions for wave guide problems. *SIAM Journal on Scientific and Statistical Computing*, 3(3):318–326, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Kri85] G. K. Kristiansen. A rootfinder using a nonmonotone rational approximation. *SIAM Journal on Scientific and Statistical Computing*, 6(1):118–127, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Kru89] Hermann Kruse. Resolution of reconstruction methods in computerized tomography. *SIAM Journal on Scientific and Statistical Computing*, 10(3):447–474, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [KS83] D. Kahaner and J. Stoer. Extrapolated adaptive quadrature. *SIAM Journal on Scientific and Statistical Computing*, 4(1):31–44, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Kre83] Barbro Kreiss. Construction of a curvilinear Grid. *SIAM Journal on Scientific and Statistical Computing*, 4(2):270–279, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [KS91] C. T. Kelley and E. W. Sachs. Fast algorithms for compact fixed point problems with inexact function evaluations. *SIAM Journal on Scientific and Statistical Computing*, 12(4):725–742, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [KT87] J. R. Kightley and C. P. Thompson. On the performance of some rapid elliptic solvers on a vector processor. *SIAM Journal on Scientific and Statistical Computing*, 8(5):701–715, September 1987. CODEN SIJCD4. ISSN 0196-5204.

**Konstantinov:1990:PAM**

**Kruse:1989:RRM**

**Karakashian:1988:PII**

**Kahaner:1983:EAQ**

**Kreiss:1983:CCG**

**Kelley:1991:FAC**

**Kriegsmann:1982:RCW**

**Kightley:1987:PSR**

**Kristiansen:1985:RUN**

- [Kui87] **Kuiper:1987:CIM**  
 Logan K. Kuiper. A comparison of iterative methods as applied to the solution of the nonlinear three-dimensional groundwater flow equation. *SIAM Journal on Scientific and Statistical Computing*, 8(4):521–528, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Kuo86] **Kuo:1986:CMD**  
 Lynn Kuo. Computations of mixtures of Dirichlet processes. *SIAM Journal on Scientific and Statistical Computing*, 7(1):60–71, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [KWD85] **Kane:1985:ALD**  
 V. E. Kane, R. C. Ward, and G. J. Davis. Assessment of linear dependencies in multivariate data. *SIAM Journal on Scientific and Statistical Computing*, 6(4):1022–1032, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [KWF84] **Kahaner:1984:APG**  
 D. K. Kahaner, J. Waldvogel, and L. W. Fullerton. Addition of points to Gauss–Laguerre quadrature formulas. *SIAM Journal on Scientific and Statistical Computing*, 5(1):42–55, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Lan92] **Langtangen:1992:SBT**  
 Hans Petter Langtangen. Stochastic breakthrough time analysis of an enhanced oil recovery process. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1394–1417, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Lar89] **Larroutourou:1989:CAM**  
 B. Larroutourou. A conservative adaptive method for flame propagation. *SIAM Journal on Scientific and Statistical Computing*, 10(4):742–755, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Lau88] **Laurie:1988:NAI**  
 Dirk P. Laurie. A numerical approach to the inverse Toeplitz eigenproblem. *SIAM Journal on Scientific and Statistical Computing*, 9(2):401–405, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [LaV80] **LaVita:1980:EGU**  
 James LaVita. Error growth in using the random choice method for the inviscid Burgers equation. *SIAM Journal on Scientific and Statistical Computing*, 1(3):327–332, September 1980. CODEN SIJCD4. ISSN 0196-5204.
- [LBD91] **Lawson:1991:BST**  
 J. Lawson, M. Berzins, and P. M. Dew. Balancing space and time errors in the method of lines for parabolic equations. *SIAM Journal on Scientific and Statistical Computing*, 12(3):573–594, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [LC84] **Liu:1984:IAS**  
 J. Q. Liu and Y. M. Chen. An iterative algorithm for solving inverse problems of two-dimensional diffusion equations.

- SIAM Journal on Scientific and Statistical Computing*, 5(2):255–269, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [LC87] X. Y. Liu and Y. M. Chen. A generalized pulse-spectrum technique (GPST) for determining time-dependent coefficients of one-dimensional diffusion equations. *SIAM Journal on Scientific and Statistical Computing*, 8(3):436–445, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [LC88] Guang Ye Li and Thomas F. Coleman. A parallel triangular solver for a distributed-memory multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 9(3):485–502, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [LC89] Guang Ye Li and Thomas F. Coleman. A new method for solving triangular systems on distributed-memory message-passing multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 10(2):382–396, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Le85] D. Le. Three new rapidly convergent algorithms for finding a zero of a function. *SIAM Journal on Scientific and Statistical Computing*, 6(1):193–208, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Lee91] David Lee. Detection, classification, and measurement of discontinuities. *SIAM Journal on Scientific and Statistical Computing*, 12(2):311–341, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Let92] Frank W. Letniowski. Three-dimensional Delaunay triangulations for finite element approximations to a second-order diffusion operator. *SIAM Journal on Scientific and Statistical Computing*, 13(3):765–770, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Lin86a] Avi Lin. High-order three-point schemes for boundary value problems. I. linear problems. *SIAM Journal on Scientific and Statistical Computing*, 7(3):940–958, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Lin86b] Yih-Yih Lin. Numerical solutions for flow in a partially filled, rotating cylinder. *SIAM Journal on Scientific and Statistical Computing*, 7(2):560–570, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Liu86] Joseph W. H. Liu. On general row merging schemes for sparse

**Liu:1987:GPS****Li:1988:PTS****Li:1989:NMS****Le:1985:TNR****Lee:1991:DCM****Letniowski:1992:TDD****Lin:1986:HOT****Lin:1986:NSF****Liu:1986:GRM**

- Givens transformations. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1190–1211, October 1986. CODEN SIJCD4. ISSN 0196-5204. [LK87]
- [Liu87a] Joseph W. H. Liu. An adaptive general sparse out-of-core Cholesky factorization scheme. *SIAM Journal on Scientific and Statistical Computing*, 8(4):585–599, July 1987. CODEN SIJCD4. ISSN 0196-5204. **Liu:1987:AGS**
- [Liu87b] Joseph W. H. Liu. A note on sparse factorization in a paging environment. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1085–1088, November 1987. CODEN SIJCD4. ISSN 0196-5204. **Liu:1987:NSF**
- [Liu88] Joseph W. H. Liu. Equivalent sparse matrix reordering by elimination tree rotations. *SIAM Journal on Scientific and Statistical Computing*, 9(3):424–444, May 1988. CODEN SIJCD4. ISSN 0196-5204. **Liu:1988:ESM**
- [Liu89] Joseph W. H. Liu. The minimum degree ordering with constraints. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1136–1145, November 1989. CODEN SIJCD4. ISSN 0196-5204. Sparse matrix algorithms on supercomputers. **Liu:1989:MDO**
- Lyness:1987:CFT**  
J. N. Lyness and Tasso J. Kaper. Calculating Fourier transforms of long-tailed functions. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1005–1011, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [LM85] A. V. Levy and A. Montalvo. The tunneling algorithm for the global minimization of functions. *SIAM Journal on Scientific and Statistical Computing*, 6(1):15–29, January 1985. CODEN SIJCD4. ISSN 0196-5204. **Levy:1985:TAG**
- [LMPS86] J. C. Lattanzio, J. J. Monaghan, H. Pongracic, and M. P. Schwarz. Controlling penetration. *SIAM Journal on Scientific and Statistical Computing*, 7(2):591–598, April 1986. CODEN SIJCD4. ISSN 0196-5204. **Lattanzio:1986:CP**
- [LN89] Dong C. Liu and Jorge Nocedal. Algorithms with conic termination for nonlinear optimization. *SIAM Journal on Scientific and Statistical Computing*, 10(1):1–17, January 1989. CODEN SIJCD4. ISSN 0196-5204. **Liu:1989:ACT**
- [LNK91] L. Lustman, B. Neta, and C. P. Katti. Solution of linear systems of ordinary differential equations on an Intel Hypercube. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1480–



- 1485, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [LO87] Bradley J. Lucier and Ross Overbeek. A parallel adaptive numerical scheme for hyperbolic systems of conservation laws. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S203–S219, March 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [Löt84] Per Lötstedt. Numerical simulation of time-dependent contact and friction problems in rigid body mechanics. *SIAM Journal on Scientific and Statistical Computing*, 5(2):370–393, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [LP89] Franklin T. Luk and Haesun Park. On parallel Jacobi orderings. *SIAM Journal on Scientific and Statistical Computing*, 10(1):18–26, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [LP91] Bruce N. Lundberg and Aubrey B. Poore. Variable order Adams–Bashforth predictors with an error-stepsize control for continuation methods. *SIAM Journal on Scientific and Statistical Computing*, 12(3):695–723, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [LPP89] John G. Lewis, Barry W. Peyton, and Alex Pothen. A fast algorithm for reordering sparse matrices for parallel factorization. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1146–1173, November 1989. CODEN SIJCD4. ISSN 0196-5204. Sparse matrix algorithms on supercomputers.
- [LPS87] Sy-Shin Lo, Bernard Philippe, and Ahmed Sameh. A multiprocessor algorithm for the symmetric tridiagonal eigenvalue problem. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S155–S165, March 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [LQ86] Franklin T. Luk and Sanzheng Qiao. Computing the CS-Decomposition on systolic arrays. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1121–1125, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [LQ89] Franklin T. Luk and San Zheng Qiao. Analysis of a recursive least-squares signal-processing algorithm. *SIAM Journal on Scientific and Statistical Computing*, 10(3):407–418, May 1989. CODEN SIJCD4. ISSN 0196-5204.

- [LR84] **Lugannani:1984:DRQ**  
R. Lugannani and S. O. Rice. Distribution of the ratio of quadratic forms in normal variables—numerical methods. *SIAM Journal on Scientific and Statistical Computing*, 5(2):476–488, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Luk85] **Luk:1985:MMF**  
Franklin T. Luk. On the min-res method of factor analysis. *SIAM Journal on Scientific and Statistical Computing*, 6(3):562–572, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [LS85] **Langberg:1985:USS**  
Naftali Langberg and Nozer D. Singpurwalla. A unification of some software reliability models. *SIAM Journal on Scientific and Statistical Computing*, 6(3):781–790, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Luk86] **Luk:1986:RMC**  
Franklin T. Luk. A rotation method for computing the  $QR$ -decomposition. *SIAM Journal on Scientific and Statistical Computing*, 7(2):452–459, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [LS88] **Lewis:1988:IHG**  
John G. Lewis and Horst D. Simon. The impact of hardware gather/scatter on sparse Gaussian elimination. *SIAM Journal on Scientific and Statistical Computing*, 9(2):304–311, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [LZS91] **Li:1991:PHA**  
Tien-Yien Li, Hong Zhang, and Xian-He Sun. Parallel homotopy algorithm for the symmetric tridiagonal eigenvalue problem. *SIAM Journal on Scientific and Statistical Computing*, 12(3):469–487, May 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Luk83] **Luk:1983:ORP**  
Franklin T. Luk. Orthogonal rotation to a partially specified target. *SIAM Journal on Scientific and Statistical Computing*, 4(2):223–228, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Luk84] **Luk:1984:OPR**  
Franklin T. Luk. Oblique Procrustes rotations in factor analysis. *SIAM Journal on Scientific and Statistical Computing*, 5(4):764–770, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Mai86] **Maier:1986:ASM**  
Maximilian R. Maier. An adaptive shooting method for singularly perturbed boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 7(2):418–440, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Man81] **Manteuffel:1981:IAA**  
Thomas A. Manteuffel. An interval analysis approach to rank determination in linear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 2(3):335–348,

- September 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Man82] Lois Mansfield. On the solution of the finite element equations for nonlinear shell analysis. *SIAM Journal on Scientific and Statistical Computing*, 3(4):447–459, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Man91] Lois Mansfield. Damped Jacobi preconditioning and coarse grid deflation for conjugate gradient iteration on parallel computers. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1314–1323, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Mar86a] L. Marro. A linear time implementation of profile reduction algorithms for sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1212–1231, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Mar86b] Guillermo Marshall. A front tracking method for one-dimensional moving boundary problems. *SIAM Journal on Scientific and Statistical Computing*, 7(1):252–263, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [May85] Anita Mayo. Fast high order accurate solution of Laplace’s equation on irregular regions. *SIAM Journal on Scientific and Statistical Computing*, 6(1):144–157, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [MC89] Rossana Morandi and Paolo Costantini. Piecewise monotone quadratic histosplines. *SIAM Journal on Scientific and Statistical Computing*, 10(2):397–406, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [MC90] R. J. MacKinnon and G. F. Carey. Nodal superconvergence and solution enhancement for a class of finite-element and finite-difference methods. *SIAM Journal on Scientific and Statistical Computing*, 11(2):343–353, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [McC90] Brian J. McCartin. Computation of exponential splines. *SIAM Journal on Scientific and Statistical Computing*, 11(2):242–262, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [McD86] John Alan McDonald. Periodic smoothing of time series. *SIAM Journal on Scientific and Statistical Computing*, 7(2):665–688, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [McK84] Patrick G. McKeown. A mathematical programming approach

- to editing of continuous survey data. *SIAM Journal on Scientific and Statistical Computing*, 5(4): 784–797, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Mel82] Edward L. Melnick. Control of errors in the computation of moments of ranked discrete variables. *SIAM Journal on Scientific and Statistical Computing*, 3(1):1–5, March 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Mel88] Rami G. Melhem. A modified frontal technique suitable for parallel systems. *SIAM Journal on Scientific and Statistical Computing*, 9(2):289–303, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Mén83] Raúl Méndez. Numerical study of incompressible flow about immersed elastic boundaries. *SIAM Journal on Scientific and Statistical Computing*, 4(1):94–104, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Mer85] Marshal L. Merriam. On the factorization of block-tridiagonals without storage constraints. *SIAM Journal on Scientific and Statistical Computing*, 6(1):182–192, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [MF92] John R. McMahon and Richard Franke. Knot selection for least squares thin plate splines. *SIAM Journal on Scientific and Statistical Computing*, 13(2):484–498, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [MG92] A. Mayo and A. Greenbaum. Fast parallel iterative solution of Poisson’s and the biharmonic equations on irregular regions. *SIAM Journal on Scientific and Statistical Computing*, 13(1):101–118, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [MI91] Kazuo Murota and Kiyohiro Ikeda. Computational use of group theory in bifurcation analysis of symmetric structures. *SIAM Journal on Scientific and Statistical Computing*, 12(2): 273–297, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Mik91] V. Mikulinsky. Multigrid treatment of “thin” domains. *SIAM Journal on Scientific and Statistical Computing*, 12(4):940–949, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Mit87] Debasis Mitra. Asynchronous relaxations for the numerical solution of differential equations by parallel processors. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S43–S58, January 1987. CODEN SIJCD4.

ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).

**Mitchell:1992:OMI**

[Mit92]

William F. Mitchell. Optimal multilevel iterative methods for adaptive grids. *SIAM Journal on Scientific and Statistical Computing*, 13(1):146–167, January 1992. CODEN SIJCD4. ISSN 0196-5204.

**Mills:1988:AML**

[MLDR88]

P. L. Mills, S. Lai, M. P. Duduković, and P. A. Ramachandran. Approximation methods for linear and nonlinear diffusion-reaction equations with discontinuous boundary conditions. *SIAM Journal on Scientific and Statistical Computing*, 9(2):271–288, March 1988. CODEN SIJCD4. ISSN 0196-5204.

**Mittelmann:1992:LSI**

[MLJN92]

Hans D. Mittelmann, Cindy C. Law, Daniel F. Jankowski, and G. Paul Neitzel. A large, sparse, and indefinite generalized eigenvalue problem from fluid mechanics. *SIAM Journal on Scientific and Statistical Computing*, 13(1):411–424, January 1992. CODEN SIJCD4. ISSN 0196-5204.

**Manoranjan:1984:NSG**

[MMM84]

V. S. Manoranjan, A. R. Mitchell, and J. Ll. Morris. Numerical solutions of the good Boussinesq equation. *SIAM Journal on Scientific and Statistical Computing*, 5(4):946–957,

December 1984. CODEN SIJCD4. ISSN 0196-5204.

**Mattingly:1989:ORV**

[MMO89]

R. Bruce Mattingly, Carl D. Meyer, and James M. Ortega. Orthogonal reduction on vector computers. *SIAM Journal on Scientific and Statistical Computing*, 10(2):372–381, March 1989. CODEN SIJCD4. ISSN 0196-5204.

**Miekkala:1987:CDI**

[MN87]

Ulla Miekkala and Olavi Nevanlinna. Convergence of dynamic iteration methods for initial value problems. *SIAM Journal on Scientific and Statistical Computing*, 8(4):459–482, July 1987. CODEN SIJCD4. ISSN 0196-5204.

**Murray:1980:PLA**

[MO80]

Walter Murray and Michael L. Overton. A projected Lagrangian algorithm for nonlinear minimax optimization. *SIAM Journal on Scientific and Statistical Computing*, 1(3):345–370, September 1980. CODEN SIJCD4. ISSN 0196-5204.

**Murray:1981:PLA**

[MO81]

Walter Murray and Michael L. Overton. A projected Lagrangian algorithm for nonlinear  $\ell_1$  optimization. *SIAM Journal on Scientific and Statistical Computing*, 2(2):207–224, June 1981. CODEN SIJCD4. ISSN 0196-5204.

- [MO84] **Marsaglia:1984:GCM**  
George Marsaglia and Ingram Olkin. Generating correlation matrices. *SIAM Journal on Scientific and Statistical Computing*, 5(2):470–475, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Mon82] **Monaghan:1982:WPM**  
J. J. Monaghan. Why particle methods work. *SIAM Journal on Scientific and Statistical Computing*, 3(4):422–433, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Mon92] **Monk:1992:CTM**  
Peter Monk. A comparison of three mixed methods for the time-dependent Maxwell’s equations. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1097–1122, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Moo81] **Moore:1981:PVM**  
D. W. Moore. On the point vortex method. *SIAM Journal on Scientific and Statistical Computing*, 2(1):65–84, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [MP85a] **McDonald:1985:CEDa**  
John Alan McDonald and Jan Pedersen. Computing environments for data analysis. I. introduction. *SIAM Journal on Scientific and Statistical Computing*, 6(4):1004–1012, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [MP85b] **McDonald:1985:CEDb**  
John Alan McDonald and Jan Pedersen. Computing environments for data analysis. II. hardware. *SIAM Journal on Scientific and Statistical Computing*, 6(4):1013–1021, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [MP88] **McDonald:1988:CED**  
John Alan McDonald and Jan Pedersen. Computing environments for data analysis. III. programming environments. *SIAM Journal on Scientific and Statistical Computing*, 9(2):380–400, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [MP92a] **Manteuffel:1992:I**  
Thomas A. Manteuffel and Linda R. Petzold. Introduction. *SIAM Journal on Scientific and Statistical Computing*, 13(1):vii–??, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [MP92b] **Manteuffel:1992:SII**  
Thomas A. Manteuffel and Linda R. Petzold. Special issue on iterative methods in numerical linear algebra. *SIAM Journal on Scientific and Statistical Computing*, 13(1):vii–viii, ??? 1992. CODEN SIJCD4. ISSN 0196-5204.
- [MPL83] **Marchesin:1983:SGP**  
D. Marchesin and P. J. Paes-Leme. Shocks in gas pipelines. *SIAM Journal on Scientific and*

- Statistical Computing*, 4(1):105–116, March 1983. CODEN SIJCD4. ISSN 0196-5204. [MS84b]
- Majda:1990:NSM**
- [MR90] A. J. Majda and V. Roytburd. Numerical study of the mechanisms for initiation of reacting shock waves. *SIAM Journal on Scientific and Statistical Computing*, 11(5):950–974, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- Mu:1992:GBS**
- [MR92] Mo Mu and J. R. Rice. A grid-based subtree-subcube assignment strategy for solving partial differential equations on hypercubes. *SIAM Journal on Scientific and Statistical Computing*, 13(3):826–839, May 1992. CODEN SIJCD4. ISSN 0196-5204. [MS85]
- More:1983:CTR**
- [MS83] Jorge J. Moré and D. C. Sorensen. Computing a trust region step. *SIAM Journal on Scientific and Statistical Computing*, 4(3):553–572, September 1983. CODEN SIJCD4. ISSN 0196-5204. [MT84a]
- Manohar:1984:HOD**
- [MS84a] R. Manohar and J. W. Stephenson. High order difference schemes for linear partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 5(1):69–77, March 1984. CODEN SIJCD4. ISSN 0196-5204. [MT84b]
- Mattheij:1984:EAS**
- R. M. M. Mattheij and G. W. M. Staarink. An efficient algorithm for solving general linear two-point BVP. *SIAM Journal on Scientific and Statistical Computing*, 5(4):745–763, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- Moret:1985:MST**
- Bernard M. E. Moret and Henry D. Shapiro. On minimizing a set of tests. *SIAM Journal on Scientific and Statistical Computing*, 6(4):983–1003, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- Morgan:1986:GDM**
- [MS86] Ronald B. Morgan and David S. Scott. Generalizations of Davidson’s method for computing eigenvalues of sparse symmetric matrices. *SIAM Journal on Scientific and Statistical Computing*, 7(3):817–825, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- Marsaglia:1984:FEI**
- [MT84a] George Marsaglia and Wai Wan Tsang. A fast, easily implemented method for sampling from decreasing or symmetric unimodal density functions. *SIAM Journal on Scientific and Statistical Computing*, 5(2):349–359, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- Mastin:1984:QMG**
- [MT84b] C. W. Mastin and J. F. Thompson. Quasiconformal mappings

- and Grid generation. *SIAM Journal on Scientific and Statistical Computing*, 5(2):305–310, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Mur81] **Murio:1981:MMN**  
Diego A. Murio. The mollification method and the numerical solution of an inverse heat conduction problem. *SIAM Journal on Scientific and Statistical Computing*, 2(1):17–34, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [MTPR87] **Manitius:1987:CEA**  
A. Manitius, H. Tran, G. Payre, and R. Roy. Computation of eigenvalues associated with functional-differential equations. *SIAM Journal on Scientific and Statistical Computing*, 8(3):222–247, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [MU88] **Micchelli:1988:SIC**  
Charles A. Micchelli and Florencio I. Utreras. Smoothing and interpolation in a convex subset of a Hilbert space. *SIAM Journal on Scientific and Statistical Computing*, 9(4):728–746, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Mul90a] **Mulder:1990:MOD**  
Wim A. Mulder. Multigrid for the one-dimensional inviscid Burgers equation. *SIAM Journal on Scientific and Statistical Computing*, 11(1):33–50, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Mul90b] **Mulder:1990:NUS**  
Wim A. Mulder. A note on the use of symmetric line Gauss–Seidel for the steady upwind differenced Euler equations. *SIAM Journal on Scientific and Statistical Computing*, 11(2):389–397, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [MV87] **McBryan:1987:HAI**  
Oliver A. McBryan and Eric F. Van de Velde. Hypercube algorithms and implementations. *SIAM Journal on Scientific and Statistical Computing*, 8(2):S227–S287, March 1987. CODEN SIJCD4. ISSN 0196-5204. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [MW85] **Mittelmann:1985:MGS**  
H. D. Mittelmann and H. Weber. Multi-Grid solution of bifurcation problems. *SIAM Journal on Scientific and Statistical Computing*, 6(1):49–60, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [MW90] **Ma:1990:MCS**  
F. Ma and M. S. Wei. Monte Carlo simulation of linear two-phase flow in heterogeneous media. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1053–1072, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [MWM87] **Ma:1987:CSS**  
Fai Ma, Mein Sieng Wei, and Wendell H. Mills. Correlation structuring and the statistical



- analysis of steady-state groundwater flow. *SIAM Journal on Scientific and Statistical Computing*, 8(5):848–867, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Nas85] Stephen G. Nash. Preconditioning of truncated-Newton methods. *SIAM Journal on Scientific and Statistical Computing*, 6(3):599–616, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Ng91] Esmond Ng. A scheme for handling rank-deficiency in the solution of sparse linear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1173–1183, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Nie84] Harald Niederreiter. The performance of  $k$ -step pseudorandom number generators under the uniformity test. *SIAM Journal on Scientific and Statistical Computing*, 5(4):798–810, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Nie87] Harald Niederreiter. A statistical analysis of generalized feedback shift register pseudorandom number generators. *SIAM Journal on Scientific and Statistical Computing*, 8(6):1035–1051, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [N’K91] T. N’Kaoua. Solution of the nonlinear radiative transfer equations by a fully implicit matrix Monte Carlo method coupled with the Rosseland diffusion equation via domain decomposition. *SIAM Journal on Scientific and Statistical Computing*, 12(3):505–520, May 1991. CODEN SIJCD4. ISSN 0196-5204.
- [NOP85] B. Nour-Omid and B. N. Parlett. Element preconditioning using splitting techniques. *SIAM Journal on Scientific and Statistical Computing*, 6(3):761–770, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [NP83] H. Joseph Newton and Marcello Pagano. The finite memory prediction of covariance stationary time series. *SIAM Journal on Scientific and Statistical Computing*, 4(2):330–339, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [NP86] Harald Niederreiter and Paul Peart. Localization of search in quasi-Monte Carlo methods for global optimization. *SIAM Journal on Scientific and Statistical Computing*, 7(2):660–664, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [NPV91] R. H. Nochetto, M. Paolini, and C. Verdi. An adaptive fi-

- nite element method for two-phase Stefan problems in two space dimensions. Part II: Implementation and numerical experiments. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1207–1244, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [NSV83] Arthur Richard Newton and Alberto L. Sangiovanni-Vincentelli. Relaxation-based electrical simulation. *SIAM Journal on Scientific and Statistical Computing*, 4(3):485–524, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [NW85] Subhash C. Narula and John F. Wellington. A branch and bound procedure for selection of variables in minimax regression. *SIAM Journal on Scientific and Statistical Computing*, 6(3):573–581, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [NW88] Subhash C. Narula and John F. Wellington. An efficient algorithm for the MSAE and the MMAE regression problems. *SIAM Journal on Scientific and Statistical Computing*, 9(4):717–727, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [O’L80] Dianne Prost O’Leary. Estimating matrix condition numbers. *SIAM Journal on Scientific and Statistical Computing*, 1(2):205–209, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [O’L84] Dianne P. O’Leary. Ordering schemes for parallel processing of certain mesh problems. *SIAM Journal on Scientific and Statistical Computing*, 5(3):620–632, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [OP88] R. W. Oldford and S. C. Peters. DINDE: towards more sophisticated software environments for statistics. *SIAM Journal on Scientific and Statistical Computing*, 9(1):191–211, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [OP91] M. R. Osborne and Tania Prvan. What is the covariance analog of the Paige and Saunders information filter? *SIAM Journal on Scientific and Statistical Computing*, 12(6):1324–1331, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [OR86] Dianne P. O’Leary and Bert W. Rust. Confidence intervals for inequality-constrained least squares problems, with applications to ill-posed problems. *SIAM Journal on Scientific and Statistical Computing*, 7(2):473–489, April 1986. CODEN SIJCD4. ISSN 0196-5204.

**OLeary:1984:OSP**

**Newton:1983:RBE**

**Oldford:1988:DTM**

**Narula:1985:BBP**

**Osborne:1991:WCA**

**Narula:1988:EAM**

**OLeary:1986:CII**

**OLeary:1980:EMC**

- [OR89] **ODonnell:1989:FAN**  
S. T. O'Donnell and V. Rokhlin. A fast algorithm for the numerical evaluation of conformal mappings. *SIAM Journal on Scientific and Statistical Computing*, 10(3):475–487, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Ort88] **Ortega:1988:EIC**  
J. M. Ortega. Efficient implementations of certain iterative methods. *SIAM Journal on Scientific and Statistical Computing*, 9(5):882–891, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [OS81] **OLeary:1981:BRP**  
Dianne P. O'Leary and John A. Simmons. A bidiagonalization-regularization procedure for large scale discretizations of ill-posed problems. *SIAM Journal on Scientific and Statistical Computing*, 2(4):474–489, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- [O'S88a] **OSullivan:1988:FCF**  
Finbarr O'Sullivan. Fast computation of fully automated log-density and log-hazard estimators. *SIAM Journal on Scientific and Statistical Computing*, 9(2):363–379, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [O'S88b] **OSullivan:1988:NER**  
Finbarr O'Sullivan. Nonparametric estimation of relative risk using splines and cross-validation. *SIAM Journal on Scientific and Statistical Computing*, 9(3):531–542, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [OS90] **ONeil:1990:BOM**  
James O'Neil and Daniel B. Szyld. A block ordering method for sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 11(5):811–823, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- [OS91a] **Osborne:1991:MPA**  
M. R. Osborne and G. K. Smyth. A modified Prony algorithm for fitting functions defined by difference equations. *SIAM Journal on Scientific and Statistical Computing*, 12(2):362–382, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [O'S91b] **OSullivan:1991:SAR**  
Finbarr O'Sullivan. Sensitivity analysis for regularized estimation in some system identification problems. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1266–1283, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Os87] **Osborne:1987:ENM**  
M. R. Osborne. Estimating nonlinear models by maximum likelihood for the exponential family. *SIAM Journal on Scientific and Statistical Computing*, 8(3):446–456, May 1987. CODEN SIJCD4. ISSN 0196-5204.

- [Ost87] **Ostrouchov:1987:SGR**  
George Ostrouchov. Symbolic Givens reduction and row-ordering in large sparse least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 8(3):248–264, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Ost89] **Ostrouchov:1989:AMF**  
George Ostrouchov. ANOVA model fitting via sparse matrix computations: a fast direct method. *SIAM Journal on Scientific and Statistical Computing*, 10(1):58–71, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [OT89] **Otto:1989:SRK**  
Kurt Otto and Michael Thuné. Stability of a Runge–Kutta method for the Euler equations on a substructured domain. *SIAM Journal on Scientific and Statistical Computing*, 10(1):154–174, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Ott89] **Otto:1989:SPF**  
James S. Otto. Symmetric prime factor fast Fourier transform algorithms. *SIAM Journal on Scientific and Statistical Computing*, 10(3):419–431, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [OW85] **Osborne:1985:ATA**  
M. R. Osborne and G. A. Watson. An analysis of the total approximation problem in separable norms, and an algorithm for the total  $\ell_1$  problem. *SIAM Journal on Scientific and Statistical Computing*, 6(2):410–424, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [OZ92] **Owren:1992:DEC**  
Brynjulf Owren and Marino Zenaro. Derivation of efficient, continuous, explicit Runge–Kutta methods. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1488–1501, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [PA92] **Pothen:1992:FRA**  
Alex Pothen and Fernando L. Alvarado. A fast reordering algorithm for parallel sparse triangular solution. *SIAM Journal on Scientific and Statistical Computing*, 13(2):645–653, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [PAF92] **Pommerell:1992:SNM**  
Claude Pommerell, Marco Anaratone, and Wolfgang Fichtner. A set of new mapping and coloring heuristics for distributed-memory parallel processors. *SIAM Journal on Scientific and Statistical Computing*, 13(1):194–226, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Pai84] **Paine:1984:NMI**  
John Paine. A numerical method for the inverse Sturm–Liouville

- problem. *SIAM Journal on Scientific and Statistical Computing*, 5(1):149–156, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Pai86] C. C. Paige. Computing the generalized singular value decomposition. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1126–1146, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Pan88] Constantinos C. Pantelides. The consistent initialization of differential-algebraic systems. *SIAM Journal on Scientific and Statistical Computing*, 9(2):213–231, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Par84] B. N. Parlett. The software scene in the extraction of eigenvalues from sparse matrices. *SIAM Journal on Scientific and Statistical Computing*, 5(3):590–604, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Par92] Harold R. Parks. Numerical approximation of parametric oriented area-minimizing hypersurfaces. *SIAM Journal on Scientific and Statistical Computing*, 13(2):499–511, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Pea91] Kent Pearce. A constructive method for numerically computing conformal mappings for gearlike domains. *SIAM Journal on Scientific and Statistical Computing*, 12(2):231–246, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Pet82] Linda Petzold. Differential/algebraic equations are not ODE's. *SIAM Journal on Scientific and Statistical Computing*, 3(3):367–384, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Pet83a] Janet S. Peterson. An application of mixed finite element methods to the stability of the incompressible Navier–Stokes equation. *SIAM Journal on Scientific and Statistical Computing*, 4(4):626–634, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Pet83b] Linda Petzold. Automatic selection of methods for solving stiff and nonstiff systems of ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 4(1):136–148, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Pet89] Janet S. Peterson. The reduced basis method for incompressible viscous flow calculations. *SIAM Journal on Scientific and Statistical Computing*, 10(4):777–786,

**Paige:1986:CGS****Petzold:1982:DAE****Pantelides:1988:CID****Peterson:1983:AMF****Parlett:1984:SSE****Petzold:1983:ASM****Parks:1992:NAP****Peterson:1989:RBM****Pearce:1991:CMN**

- July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [PK84] N. Papamichael and C. A. Kokkinos. The use of singular functions for the approximate conformal mapping of doubly-connected domains. *SIAM Journal on Scientific and Statistical Computing*, 5(3):684–700, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [PK89] Timothy N. Phillips and Andreas Karageorghis. Efficient direct methods for solving the spectral collocation equations for Stokes flow in rectangularly decomposable domains. *SIAM Journal on Scientific and Statistical Computing*, 10(1):89–103, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [PL86] Linda Petzold and Per Lötstedt. Numerical solution of nonlinear differential equations with algebraic constraints. II. practical implications. *SIAM Journal on Scientific and Statistical Computing*, 7(3):720–733, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [PLB90] J. M. Picone, S. G. Lambrakos, and J. P. Boris. Timing analysis of the monotonic logical grid for many-body dynamics. *SIAM Journal on Scientific and Statistical Computing*, 11(2):368–388, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Por91] Stephen Portnoy. Asymptotic behavior of the number of regression quantile breakpoints. *SIAM Journal on Scientific and Statistical Computing*, 12(4):867–883, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Pot85] Thom Potempa. A numerical model of two-dimensional, two-component, single phase miscible displacement in a porous medium. *SIAM Journal on Scientific and Statistical Computing*, 6(3):582–598, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [PR85] Jane E. Pierce and Bert W. Rust. Constrained least squares interval estimation. *SIAM Journal on Scientific and Statistical Computing*, 6(3):670–683, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [PR86] T. N. Phillips and M. E. Rose. A finite difference scheme for the equilibrium equations of elastic bodies. *SIAM Journal on Scientific and Statistical Computing*, 7(1):288–300, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [PR88] P. M. Pardalos and J. B. Rosen. Global optimization approach to

- the linear complementarity problem. *SIAM Journal on Scientific and Statistical Computing*, 9(2): 341–353, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [PR89] Alex Pothen and Padma Raghavan. Distributed orthogonal factorization: Givens and Householder algorithms. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1113–1134, November 1989. CODEN SIJCD4. ISSN 0196-5204.
- [PR92] Victor Pan and John Reif. Compact multigrad. *SIAM Journal on Scientific and Statistical Computing*, 13(1):119–127, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Pru86] Steven Pruess. Interpolation schemes for collocation solutions of two-point boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 7(1):322–333, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [PS91] Victor Pan and Robert Schreiber. An improved Newton iteration for the generalized inverse of a matrix, with applications. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1109–1130, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [PSdH+83] Simon J. Polak, Willy H. A. Schilders, Cor den Heijer, Arthur J. H. Wachtters, and Harry M. Vaes. Automatic problemsize reduction for on-state semiconductor problems. *SIAM Journal on Scientific and Statistical Computing*, 4(3):452–461, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [PT83] Marcello Pagano and David Tritchler. Algorithms for the analysis of several  $2 \times 2$  contingency tables. *SIAM Journal on Scientific and Statistical Computing*, 4(2):302–309, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Puc89] Elbridge Gerry Puckett. A study of the vortex sheet method and its rate of convergence. *SIAM Journal on Scientific and Statistical Computing*, 10(2):298–327, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Pug92] Chiara Puglisi. Modification of the Householder method based on the compact WY representation. *SIAM Journal on Scientific and Statistical Computing*, 13(3): 723–726, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [PV86] R. Pyzalski and M. Vala. Conversion of decimal numbers to irreducible rational fractions. *SIAM*

- Journal on Scientific and Statistical Computing*, 7(2):370–377, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [PW80] Włodzimierz Proskurowski and Olof Widlund. A finite element-capacitance matrix method for the Neumann problem for Laplace’s equation. *SIAM Journal on Scientific and Statistical Computing*, 1(4):410–425, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Qua90] Alfio Quarteroni. Domain decomposition methods for systems of conservation laws: Spectral collocation approximations. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1029–1052, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [RD89] Dirk Roose and Bart De Dier. Numerical determination of an emanating branch of Hopf bifurcation points in a two-parameter problem. *SIAM Journal on Scientific and Statistical Computing*, 10(4):671–685, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Rei81] Rolf D. Reitz. A study of numerical methods for reaction-diffusion equations. *SIAM Journal on Scientific and Statistical Computing*, 2(1):95–106, March 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Rei86] Lothar Reichel. Some computational aspects of a method for rational approximation. *SIAM Journal on Scientific and Statistical Computing*, 7(3):1041–1057, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Rei90] Lothar Reichel. A matrix problem with application to rapid solution of integral equations. *SIAM Journal on Scientific and Statistical Computing*, 11(2):263–280, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Ren87] R. J. Renka. Interpolatory tension splines with automatic selection of tension factors. *SIAM Journal on Scientific and Statistical Computing*, 8(3):393–415, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Ric80] S. O. Rice. Distribution of quadratic forms in normal random variables—evaluation by numerical integration. *SIAM Journal on Scientific and Statistical Computing*, 1(4):438–448, December 1980. CODEN SIJCD4. ISSN 0196-5204. See comment [Hel83].
- [Rip92] Shmuel Rippa. Adaptive approximation by piecewise linear poly-
- Proskurowski:1980:FEC**
- Reichel:1986:SCA**
- Quarteroni:1990:DDM**
- Reichel:1990:MPA**
- Roose:1989:NDE**
- Reit:1981:SNM**
- Renka:1987:ITS**
- Rice:1980:DQF**
- Rippa:1992:AAP**



- nomials on triangulations of subsets of scattered data. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1123–1141, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Riv88] Louis-Paul Rivest. A new scale step for Huber’s  $M$ -estimators in multiple regression. *SIAM Journal on Scientific and Statistical Computing*, 9(1):164–169, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [RM91] M. D. Rees and K. W. Morton. Moving point, particle, and free-Lagrange methods for convection-diffusion equations. *SIAM Journal on Scientific and Statistical Computing*, 12(3):547–572, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Roe92] P. L. Roe. Sonic flux formulae. *SIAM Journal on Scientific and Statistical Computing*, 13(2):611–630, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Ros85] Vernon J. Rossow. On Bartky’s method for evaluation of integrals of elliptic type with application to round-nosed wedges. *SIAM Journal on Scientific and Statistical Computing*, 6(2):365–375, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Rou80] John A. Roulier. Constrained interpolation. *SIAM Journal on Scientific and Statistical Computing*, 1(3):333–344, September 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Row88] Neil C. Rowe. Absolute bounds on the mean and standard deviation of transformed data for constant-sign-derivative transformations. *SIAM Journal on Scientific and Statistical Computing*, 9(6):1098–1113, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [RR92] Yuhe Ren and Robert D. Russell. Moving mesh techniques based upon equidistribution, and their stability. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1265–1286, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [RRPP88] Michael F. Reusch, Lee Ratzan, Neil Pomphrey, and Wonchull Park. Diagonal Padé approximations for initial value problems. *SIAM Journal on Scientific and Statistical Computing*, 9(5):829–838, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [RS84] Lars Petter Røed and Ole Martin Smedstad. Open boundary conditions for forced waves in a

**Roulier:1980:CI****Rivest:1988:NSS****Rowe:1988:ABM****Rees:1991:MPP****Ren:1992:MMT****Roe:1992:SFF****Reusch:1988:DPA****Rossow:1985:BME****Roed:1984:OBC**

- rotating fluid. *SIAM Journal on Scientific and Statistical Computing*, 5(2):414–426, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [RS85] D. A. Reinelt and P. G. Saffman. The penetration of a finger into a viscous fluid in a channel and tube. *SIAM Journal on Scientific and Statistical Computing*, 6(3):542–561, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [RS87] Y. R. Rubinstein and G. Samorodnitsky. A modified version of Handscomb’s antithetic variates theorem. *SIAM Journal on Scientific and Statistical Computing*, 8(1):82–98, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [RS89] T. G. Robertazzi and S. C. Schwartz. An accelerated sequential algorithm for producing  $D$ -optimal designs. *SIAM Journal on Scientific and Statistical Computing*, 10(2):341–358, March 1989. CODEN SIJCD4. ISSN 0196-5204.
- [RST92] Robert D. Russell, David M. Sloan, and Manfred R. Trummer. On the structure of Jacobians for spectral methods for nonlinear partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 13(2):541–549, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [RT91] Nils Henrik Risebro and Aslak Tveito. Front tracking applied to a non-strictly hyperbolic system of conservation laws. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1401–1419, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Rüd92] U. Råde. The hierarchical basis extrapolation method. *SIAM Journal on Scientific and Statistical Computing*, 13(1):307–318, January 1992. CODEN SIJCD4. ISSN 0196-5204. Proceedings of the First Copper Mountain Conference on Iterative Methods, April 1-5, 1990, T. Manteuffel ed.
- [Ruh80] Axel Ruhe. Fitting empirical data by positive sums of exponentials. *SIAM Journal on Scientific and Statistical Computing*, 1(4):481–498, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [RW90] Philip J. Rasch and David L. Williamson. On shape-preserving interpolation and semi-Lagrangian transport. *SIAM Journal on Scientific and Statistical Computing*, 11(4):656–687, July 1990. CODEN SIJCD4. ISSN 0196-5204.

**Reinelt:1985:PFV****Risebro:1991:FTA****Rubinstein:1987:MVH****Rude:1992:HBE****Robertazzi:1989:ASA****Ruhe:1980:FED****Russell:1992:SJS****Rasch:1990:SPI**

- [SA89] **Skelboe:1989:SPB**  
 Stig Skelboe and Per Ulfkjaer Andersen. Stability properties of backward Euler multirate formulas. *SIAM Journal on Scientific and Statistical Computing*, 10(5):1000–1009, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Saa84] **Saad:1984:PUS**  
 Youcef Saad. Practical use of some Krylov subspace methods for solving indefinite and non-symmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 5(1):203–228, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Saa85] **Saad:1985:PUP**  
 Youcef Saad. Practical use of polynomial preconditionings for the conjugate gradient method. *SIAM Journal on Scientific and Statistical Computing*, 6(4):865–881, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Saa89] **Saad:1989:KSM**  
 Youcef Saad. Krylov subspace methods on supercomputers. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1200–1232, November 1989. CODEN SIJCD4. ISSN 0196-5204. Sparse matrix algorithms on supercomputers.
- [Sal87] **Salane:1987:CAS**  
 Douglas E. Salane. A continuation approach for solving large-residual nonlinear least squares problems. *SIAM Journal on Scientific and Statistical Computing*, 8(4):655–671, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Sal90] **Saltz:1990:AMS**  
 Joel H. Saltz. Aggregation methods for solving sparse triangular systems on multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 11(1):123–144, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [SAW85] **Solomon:1985:NSB**  
 A. D. Solomon, V. Alexiades, and D. G. Wilson. A numerical simulation of a binary alloy solidification process. *SIAM Journal on Scientific and Statistical Computing*, 6(4):911–922, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Say80] **Saylor:1980:USV**  
 Paul E. Saylor. Use of the singular value decomposition with the Manteuffel algorithm for non-symmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 1(2):210–222, June 1980. CODEN SIJCD4. ISSN 0196-5204.
- [SB80] **Serbin:1980:ACM**  
 Steven M. Serbin and Sybil A. Blalock. An algorithm for computing the matrix cosine. *SIAM Journal on Scientific and Statistical Computing*, 1(2):198–204, June 1980. CODEN SIJCD4. ISSN 0196-5204.

- [SB85] **Shampine:1985:GEE**  
L. F. Shampine and L. S. Baca. Global error estimates for ODEs based on extrapolation methods. *SIAM Journal on Scientific and Statistical Computing*, 6(1):1–14, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [SB87] **Shubin:1987:MEA**  
Gregory R. Shubin and John B. Bell. A modified equation approach to constructing fourth-order methods for acoustic wave propagation. *SIAM Journal on Scientific and Statistical Computing*, 8(2):135–151, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- [SB89] **Shampine:1989:ECS**  
L. F. Shampine and P. Bogacki. The effect of changing the stepsize in linear multistep codes. *SIAM Journal on Scientific and Statistical Computing*, 10(5):1010–1023, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [SB90] **Skeel:1990:MSD**  
Robert D. Skeel and Martin Berzins. A method for the spatial discretization of parabolic equations in one space variable. *SIAM Journal on Scientific and Statistical Computing*, 11(1):1–32, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [SBC91] **Saarinen:1991:NSN**  
Sirpa Saarinen, R. Bramley, and George Cybenko. The numerical solution of neural network training problems. *SIAM Journal on Scientific and Statistical Computing*, 1991. CODEN SIJCD4. ISSN 0196-5204. Submitted. Issued as CSRD Technical Report No. 1089.
- [SC80] **Steger:1980:GBF**  
Joseph L. Steger and Denny S. Chaussee. Generation of body-fitted coordinates using hyperbolic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 1(4):431–437, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [SC88] **Schulze:1988:NPE**  
Klaus Schulze and Colin W. Cryer. NAXPERT: a prototype expert system for numerical software. *SIAM Journal on Scientific and Statistical Computing*, 9(3):503–515, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [SC90] **Seager:1990:ADE**  
M. K. Seager and G. F. Carey. Adaptive domain extension and adaptive grids for unbounded spherical elliptic PDEs. *SIAM Journal on Scientific and Statistical Computing*, 11(1):92–111, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Sch84] **Schwandt:1984:IAA**  
Hartmut Schwandt. An interval arithmetic approach for the construction of an almost globally convergent method for the solution of the nonlinear Poisson equation on the unit square.

- [Sch92] *SIAM Journal on Scientific and Statistical Computing*, 5(2):427–452, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Sch85a] Eugene F. Schuster. On overwhelming numerical evidence in the settling of Kinney’s waiting-time conjecture. *SIAM Journal on Scientific and Statistical Computing*, 6(4):977–982, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Sch85b] Hartmut Schwandt. The solution of nonlinear elliptic Dirichlet problems on rectangles by almost globally convergent interval methods. *SIAM Journal on Scientific and Statistical Computing*, 6(3):617–638, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Sch86] Robert Schreiber. Solving eigenvalue and singular value problems on an undersized systolic array. *SIAM Journal on Scientific and Statistical Computing*, 7(2):441–451, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Sch91] Michael Schäfer. Parallel algorithms for the numerical solution of incompressible finite elasticity problems. *SIAM Journal on Scientific and Statistical Computing*, 12(2):247–259, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Schafer:1992:NST] Michael Schäfer. Numerical solution of the time-dependent axisymmetric Boussinesq equations on processor arrays. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1377–1393, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Scott:1982:AIO] D. S. Scott. The advantages of inverted operators in Rayleigh–Ritz approximations. *SIAM Journal on Scientific and Statistical Computing*, 3(1):68–75, March 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Sco84] David S. Scott. Computing a few eigenvalues and eigenvectors of a symmetric band matrix. *SIAM Journal on Scientific and Statistical Computing*, 5(3):658–666, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Schnabel:1990:NMC] Robert B. Schnabel and Elizabeth Eskow. A new modified Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1136–1158, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Seg82] A. Segal. Aspects of numerical methods for elliptic singular perturbation problems. *SIAM Journal on Scientific and Statistical Computing*, 3(3):327–349,

- September 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Ser85] Steven M. Serbin. Some cosine schemes for second-order systems of ODEs with time-varying coefficients. *SIAM Journal on Scientific and Statistical Computing*, 6(1):61–68, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Ser92] Steven M. Serbin. A scheme for parallelizing certain algorithms for the linear inhomogeneous heat equation. *SIAM Journal on Scientific and Statistical Computing*, 13(2):449–458, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [SF88] Steven M. Serbin and Alan Lamont Fisher. A post-processor for the cosine method. *SIAM Journal on Scientific and Statistical Computing*, 9(1):14–23, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [SG80] John Strikwerda and James Geer. A numerical method for computing the shape of a vertical slender jet. *SIAM Journal on Scientific and Statistical Computing*, 1(4):449–466, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [SGMS88] B. D. Sleeman, D. F. Griffiths, A. R. Mitchell, and P. D. Smith. Stable periodic solutions in nonlinear difference equations. *SIAM Journal on Scientific and Statistical Computing*, 9(3):543–557, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Sha80] L. F. Shampine. Implementation of implicit formulas for the solution of ODEs. *SIAM Journal on Scientific and Statistical Computing*, 1(1):103–118, March 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Sha83] Lawrence F. Shampine. Type-insensitive ODE codes based on extrapolation methods. *SIAM Journal on Scientific and Statistical Computing*, 4(4):635–644, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Sha91] Lawrence F. Shampine. Diagnosing stiffness for Runge–Kutta methods. *SIAM Journal on Scientific and Statistical Computing*, 12(2):260–272, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Sho86] Haim Shore. Simple general approximations for a random variable and its inverse distribution function based on linear transformations of a nonskewed variate. *SIAM Journal on Scientific and Statistical Computing*, 7(1):1–23, January 1986. CODEN SIJCD4. ISSN 0196-5204.

- [Shu88] **Shu:1988:TVD**  
Chi-Wang Shu. Total-variation-diminishing time discretizations. *SIAM Journal on Scientific and Statistical Computing*, 9(6): 1073–1084, November 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Sim81] **Simpson:1981:TDM**  
R. B. Simpson. A two-dimensional mesh verification algorithm. *SIAM Journal on Scientific and Statistical Computing*, 2(4):455–473, December 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Sim89] **Simon:1989:BOV**  
Horst D. Simon. Bisection is not optimal on vector processors. *SIAM Journal on Scientific and Statistical Computing*, 10(1): 205–209, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [SK85a] **Seidl:1985:NCM**  
Albert Seidl and Helmut Klose. Numerical conformal mapping of a towel-shaped region onto a rectangle. *SIAM Journal on Scientific and Statistical Computing*, 6(4):833–842, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [SK85b] **Swarztrauber:1985:VHA**  
Paul N. Swarztrauber and Akira Kasahara. The vector harmonic analysis of Laplace’s tidal equations. *SIAM Journal on Scientific and Statistical Computing*, 6(2):464–491, April 1985. CODEN SIJCD4. ISSN 0196-5204.
- [SK86] **Smooke:1986:FAS**  
M. D. Smooke and M. L. Koszykowski. Fully adaptive solutions of one-dimensional mixed initial-boundary value problems with applications to unstable problems in combustion. *SIAM Journal on Scientific and Statistical Computing*, 7(1):301–321, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [SKA86] **Scandrett:1986:ALA**  
C. L. Scandrett, G. A. Kriegsmann, and J. D. Achenbach. Application of the limiting amplitude principle to elastodynamic scattering problems. *SIAM Journal on Scientific and Statistical Computing*, 7(2):571–590, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Ske89] **Skeel:1989:WIS**  
Robert D. Skeel. Waveform iteration and the shifted Picard splitting. *SIAM Journal on Scientific and Statistical Computing*, 10(4): 756–776, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Smi92] **Smith:1992:ODD**  
Barry F. Smith. An optimal domain decomposition preconditioner for the finite element solution of linear elasticity problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1): 364–378, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Smo82] **Smooke:1982:PAP**  
Mitchell D. Smooke. Piecewise analytical perturbation series so-

- lutions of the radial Schrödinger equation: one-dimensional case. *SIAM Journal on Scientific and Statistical Computing*, 3(2):195–222, June 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Sni84] Arthur David Snider. Least squares estimation with quantized integrated samples. *SIAM Journal on Scientific and Statistical Computing*, 5(4):937–945, December 1984. CODEN SIJCD4. ISSN 0196-5204.
- [SNN87] Joel H. Saltz, Vijay K. Naik, and David M. Nicol. Reduction of the effects of the communication delays in scientific algorithms on message passing MIMD architectures. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S118–S134, January 1987. CODEN SIJCD4. ISSN 0196-5204.
- [SO85] Andrew F. Siegel and Fanny O’Brien. Unbiased Monte Carlo integration methods with exactness for low order polynomials. *SIAM Journal on Scientific and Statistical Computing*, 6(1):169–181, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Son89] Peter Sonneveld. CGS, a fast Lanczos-type solver for nonsymmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 10(1):36–52, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [SP86] Arthur S. Sherman and Charles S. Peskin. A Monte Carlo method for scalar reaction diffusion equations. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1360–1372, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [SP88] Arthur S. Sherman and Charles S. Peskin. Solving the Hodgkin–Huxley equations by a random walk method. *SIAM Journal on Scientific and Statistical Computing*, 9(1):170–190, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [SP90] James Sneyd and Charles S. Peskin. Computation of geodesic trajectories on tubular surfaces. *SIAM Journal on Scientific and Statistical Computing*, 11(2):230–241, March 1990. CODEN SIJCD4. ISSN 0196-5204.
- [SP91] A. M. Stuart and A. T. Pellow. The dynamics of the theta method. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1351–1372, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [SR86] David F. Shanno and David M. Rocke. Numerical methods for

**Sherman:1986:MCM****Sherman:1988:SHH****Sneyd:1990:CGT****Stuart:1991:DTM****Shanno:1986:NMR**



- robust regression: linear models. *SIAM Journal on Scientific and Statistical Computing*, 7(1): 86–97, January 1986. CODEN SIJCD4. ISSN 0196-5204. [SS86b]
- [SS81a] P. G. Saffman and J. C. Schatzman. Properties of a vortex street of finite vortices. *SIAM Journal on Scientific and Statistical Computing*, 2(3):285–295, September 1981. CODEN SIJCD4. ISSN 0196-5204. **Saffman:1981:PVS**
- [SS81b] A. B. Stephens and G. R. Shubin. Multiple solutions and bifurcation of finite difference approximations to some steady problems of fluid dynamics. *SIAM Journal on Scientific and Statistical Computing*, 2(4):404–415, December 1981. CODEN SIJCD4. ISSN 0196-5204. **Stephens:1981:MSB**
- [SS85] J. M. Sanz-Serna. Studies in numerical nonlinear instability. I. why do leapfrog schemes go unstable? *SIAM Journal on Scientific and Statistical Computing*, 6(4):923–938, October 1985. CODEN SIJCD4. ISSN 0196-5204. **Sanz-Serna:1985:SNN**
- [SS86a] Youcef Saad and Martin H. Schultz. GMRES: a generalized minimal residual algorithm for solving nonsymmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 7(3):856–869, July 1986. CODEN SIJCD4. ISSN 0196-5204. **Saad:1986:GGM**
- Fadil Santosa and William W. Symes. Linear inversion of band-limited reflection seismograms. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1307–1330, October 1986. CODEN SIJCD4. ISSN 0196-5204. **Santosa:1986:LIB**
- [SS87] Paul Sacks and Fadil Santosa. A simple computational scheme for determining the sound speed of an acoustic medium from its surface impulse response. *SIAM Journal on Scientific and Statistical Computing*, 8(4):501–520, July 1987. CODEN SIJCD4. ISSN 0196-5204. **Sacks:1987:SCS**
- [SS91] Robin Sibson and G. Stone. Computation of thin-plate splines. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1304–1313, November 1991. CODEN SIJCD4. ISSN 0196-5204. **Sibson:1991:CTP**
- [SSG<sup>+</sup>82] G. R. Shubin, A. B. Stephens, H. M. Glaz, A. B. Wardlaw, and L. B. Hackerman. Steady shock tracking, Newton’s method, and the supersonic blunt body problem. *SIAM Journal on Scientific and Statistical Computing*, 3(2):127–144, June 1982. CODEN SIJCD4. ISSN 0196-5204. **Shubin:1982:SST**
- [SSJ88] Paul E. Saylor, Dennis C. Smolarski, and S. J. Computing the **Saylor:1988:CRC**

- roots of complex orthogonal and kernel polynomials. *SIAM Journal on Scientific and Statistical Computing*, 9(1):1–13, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [SSS85] Y. Saad, A. Sameh, and P. Saylor. Solving elliptic difference equations on a linear array of processors. *SIAM Journal on Scientific and Statistical Computing*, 6(4):1049–1063, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [ST80] B. W. Silverman and D. M. Titterton. Minimum covering ellipses. *SIAM Journal on Scientific and Statistical Computing*, 1(4):401–409, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [ST89] Hubert Schwetlick and Volker Tiller. Nonstandard scaling matrices for trust region Gauss–Newton methods. *SIAM Journal on Scientific and Statistical Computing*, 10(4):654–670, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Ste81] G. W. Stewart. On the implicit deflation of nearly singular systems of linear equations. *SIAM Journal on Scientific and Statistical Computing*, 2(2):136–140, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [Ste84] G. W. Stewart. Rank degeneracy. *SIAM Journal on Scientific and Statistical Computing*, 5(2):403–413, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Ste85] G. W. Stewart. A Jacobi-like algorithm for computing the Schur decomposition of a nonHermitian matrix. *SIAM Journal on Scientific and Statistical Computing*, 6(4):853–864, October 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Str80] John Strikwerda. Iterative methods for the numerical solution of second order elliptic equations with large first order terms. *SIAM Journal on Scientific and Statistical Computing*, 1(1):119–130, March 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Str84] John C. Strikwerda. Finite difference methods for the Stokes and Navier–Stokes equations. *SIAM Journal on Scientific and Statistical Computing*, 5(1):56–68, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Str86] Roy L. Streit. Solution of systems of complex linear equations in the  $\ell_\infty$  norm with constraints on the unknowns. *SIAM Journal on Scientific and Statistical Computing*, 7(1):132–149, January 1986. CODEN SIJCD4. ISSN 0196-5204.

- [Str91] **Strain:1991:FGT**  
John Strain. The fast Gauss transform with variable scales. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1131–1139, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [SU88] **Schumaker:1988:APC**  
Larry L. Schumaker and Florencio Utreras. Asymptotic properties of complete smoothing splines and applications. *SIAM Journal on Scientific and Statistical Computing*, 9(1):24–38, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [SU90] **Schumaker:1990:GCV**  
Larry L. Schumaker and Florencio I. Utreras. On generalized cross validation for tensor smoothing splines. *SIAM Journal on Scientific and Statistical Computing*, 11(4):713–731, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [SV89] **Schreiber:1989:SER**  
Robert Schreiber and Charles Van Loan. A storage-efficient WY representation for products of Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 10(1):53–57, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [SW82] **Scott:1982:SSD**  
David S. Scott and Robert C. Ward. Solving symmetric-definite quadratic  $\lambda$ -matrix problems without factorization. *SIAM Journal on Scientific and Statistical Computing*, 3(1):58–67, March 1982. CODEN SIJCD4. ISSN 0196-5204.
- [SW86] **Shearer:1986:NAA**  
J. M. Shearer and M. A. Wolfe. A note on the algorithm of Alefeld and Platzöder for systems of nonlinear equations. *SIAM Journal on Scientific and Statistical Computing*, 7(2):362–369, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [SW90] **Smith:1990:DDA**  
Barry F. Smith and Olof B. Widlund. A domain decomposition algorithm using a hierarchical basis. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1212–1220, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [SW92] **Smith:1992:SMH**  
Richard A. Smith and Alan Weiser. Semicoarsening multigrid on a hypercube. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1314–1329, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Swa87a] **Swartz:1987:CLC**  
Blair Swartz. Courant-like conditions limit reasonable mesh refinement to order  $h^2$ . *SIAM Journal on Scientific and Statistical Computing*, 8(6):924–933, November 1987. CODEN SIJCD4. ISSN 0196-5204.

- [Swa87b] **Swarztrauber:1987:ACR**  
Paul N. Swarztrauber. Approximate cyclic reduction for solving Poisson's equation. *SIAM Journal on Scientific and Statistical Computing*, 8(3):199–209, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Swa87c] **Swayne:1987:TDB**  
D. A. Swayne. Time-dependent boundary and interior forcing in locally one-dimensional schemes. *SIAM Journal on Scientific and Statistical Computing*, 8(5):755–767, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Swe88] **Sweet:1988:PVV**  
Roland A. Sweet. A parallel and vector variant of the cyclic reduction algorithm. *SIAM Journal on Scientific and Statistical Computing*, 9(4):761–765, July 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Ta'90a] **Taasan:1990:MML**  
Shlomo Ta'asan. Multigrid methods for locating singularities in bifurcation problems. *SIAM Journal on Scientific and Statistical Computing*, 11(1):51–62, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [TA90b] **Thomas-Agnan:1990:SPC**  
Christine Thomas-Agnan. Smoothing periodic curves by a method of regularization. *SIAM Journal on Scientific and Statistical Computing*, 11(3):482–502, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Tam92a] **Tam:1992:OSP**  
H. W. Tam. One-stage parallel methods for the numerical solution of ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1039–1061, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Tam92b] **Tam:1992:TSP**  
H. W. Tam. Two-stage parallel methods for the numerical solution of ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1062–1084, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Tan88] **Tan:1988:ITA**  
Roger C. E. Tan. Implementation of the topological  $\epsilon$ -algorithm. *SIAM Journal on Scientific and Statistical Computing*, 9(5):839–848, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [TB89] **Trangenstein:1989:MSC**  
John A. Trangenstein and John B. Bell. Mathematical structure of compositional reservoir simulation. *SIAM Journal on Scientific and Statistical Computing*, 10(5):817–845, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [TCK91] **Tong:1991:DDP**  
Charles H. Tong, Tony F. Chan, and C. C. Jay Kuo. A domain decomposition preconditioner based on a change to a

- multilevel nodal basis. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1486–1495, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [TCK92] Charles H. Tong, Tony F. Chan, and C. C. Jay Kuo. Multilevel filtering preconditioners: Extensions to more general elliptic problems. *SIAM Journal on Scientific and Statistical Computing*, 13(1):227–242, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [TE91] Hillel Tal-Ezer. High degree polynomial interpolation in Newton form. *SIAM Journal on Scientific and Statistical Computing*, 12(3):648–667, 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Tem91] Clive Temperton. Self-sorting in-place fast Fourier transforms. *SIAM Journal on Scientific and Statistical Computing*, 12(4):808–823, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Tem92] Clive Temperton. A generalized prime factor FFT algorithm for any  $N = 2^p 3^q 5^r$ . *SIAM Journal on Scientific and Statistical Computing*, 13(3):676–686, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [ten88] J. H. M. ten Thije Boonkkamp. The odd–even hopscotch pressure correction scheme for the incompressible Navier–Stokes equations. *SIAM Journal on Scientific and Statistical Computing*, 9(2):252–270, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Thu86] Michael Thuné. Automatic GKS stability analysis. *SIAM Journal on Scientific and Statistical Computing*, 7(3):959–977, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [Thu90] Michael Thuné. A numerical algorithm for stability analysis of difference methods for hyperbolic systems. *SIAM Journal on Scientific and Statistical Computing*, 11(1):63–81, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Tie83] Luke Tierney. A space-efficient recursive procedure for estimating a quantile of an unknown distribution. *SIAM Journal on Scientific and Statistical Computing*, 4(4):706–711, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Tis89] Peter Tischer. A new order selection strategy for ordinary differential equation solvers. *SIAM*

- Journal on Scientific and Statistical Computing*, 10(5):1024–1037, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Toi87] Ph. L. Toint. On large scale nonlinear least squares calculations. *SIAM Journal on Scientific and Statistical Computing*, 8(3):416–435, May 1987. CODEN SIJCD4. ISSN 0196-5204.
- [Tor90] Michael Tortorella. Closed Newton–Cotes quadrature rules for Stieltjes integrals and numerical convolution of life distributions. *SIAM Journal on Scientific and Statistical Computing*, 11(4):732–748, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [TP91] John A. Trangenstein and Richard B. Pember. The Riemann problem for longitudinal motion in an elastic-plastic bar. *SIAM Journal on Scientific and Statistical Computing*, 12(1):180–207, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Tre80a] Lloyd N. Trefethen. Erratum: “Numerical computation of the Schwarz–Christoffel transformation”. *SIAM Journal on Scientific and Statistical Computing*, 1(2):302, June 1980. CODEN SIJCD4. ISSN 0196-5204. See [Tre80b].
- [Tre80b] Lloyd N. Trefethen. Numerical computation of the Schwarz–Christoffel transformation. *SIAM Journal on Scientific and Statistical Computing*, 1(1):82–102, March 1980. CODEN SIJCD4. ISSN 0196-5204. See erratum [Tre80a].
- [TSD83] P. Tischer and R. Sacks-Davis. A new class of cyclic multistep formulae for stiff systems. *SIAM Journal on Scientific and Statistical Computing*, 4(4):733–747, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Tum92] Ray S. Tuminaro. A highly parallel multigrid-like method for the solution of the Euler equations. *SIAM Journal on Scientific and Statistical Computing*, 13(1):88–100, January 1992. CODEN SIJCD4. ISSN 0196-5204.
- [TW80] Marietta J. Tretter and G. W. Walster. Analytic subtraction applied to the incomplete gamma and beta functions. *SIAM Journal on Scientific and Statistical Computing*, 1(3):321–326, September 1980. CODEN SIJCD4. ISSN 0196-5204.
- [TW92] Kathryn Turner and Homer F. Walker. Efficient high accuracy solutions with GMRES( $m$ ). *SIAM Journal on Scientific and*

- Statistical Computing*, 13(3): 815–825, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- Tyler:1988:SRE**
- [Ty188] David E. Tyler. Some results on the existence, uniqueness, and computation of the  $M$ -estimates of multivariate location and scatter. *SIAM Journal on Scientific and Statistical Computing*, 9(2): 354–362, March 1988. CODEN SIJCD4. ISSN 0196-5204.
- Utreras:1981:CRS**
- [Utr81a] Florencio I. Utreras. On computing robust splines and applications. *SIAM Journal on Scientific and Statistical Computing*, 2(2):153–163, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- UtrerasD:1981:OSN**
- [Utr81b] Florencio Utreras D. Optimal smoothing of noisy data using spline functions. *SIAM Journal on Scientific and Statistical Computing*, 2(3):349–362, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- Utreras:1987:GCV**
- [Utr87] Florencio I. Utreras. On generalized cross-validation for multivariate smoothing spline functions. *SIAM Journal on Scientific and Statistical Computing*, 8(4):630–643, July 1987. CODEN SIJCD4. ISSN 0196-5204.
- Ulrich:1987:MCG**
- [UW87] Gary Ulrich and Layne T. Watson. A method for computer generation of variates from arbitrary continuous distributions. *SIAM Journal on Scientific and Statistical Computing*, 8(2):185–197, March 1987. CODEN SIJCD4. ISSN 0196-5204.
- VanDooren:1981:GEA**
- [Van81] P. Van Dooren. A generalized eigenvalue approach for solving Riccati equations. *SIAM Journal on Scientific and Statistical Computing*, 2(2):121–135, June 1981. CODEN SIJCD4. ISSN 0196-5204. See erratum [Van83].
- vanderVorst:1982:VVS**
- [van82] Henk A. van der Vorst. A vectorizable variant of some ICGG methods. *SIAM Journal on Scientific and Statistical Computing*, 3(3):350–356, September 1982. CODEN SIJCD4. ISSN 0196-5204.
- VanDooren:1983:EGE**
- [Van83] P. Van Dooren. Erratum: “A generalized eigenvalue approach for solving Riccati equations” [SIAM J. Sci. Statist. Comput. 2 (1981), no. 2, 121–135, MR 83h:65052]. *SIAM Journal on Scientific and Statistical Computing*, 4(4):787, December 1983. CODEN SIJCD4. ISSN 0196-5204. See [Van81].
- vanLeer:1984:RBU**
- [van84] Bram van Leer. On the relation between the upwind-differencing schemes of Godunov, Engquist–Osher and Roe. *SIAM Journal on Scientific and Statistical Computing*, 5(1):1–20, March

1984. CODEN SIJCD4. ISSN 0196-5204.
- [van86] J. van Kan. A second-order-accurate pressure-correction scheme for viscous incompressible flow. *SIAM Journal on Scientific and Statistical Computing*, 7(3):870–891, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [van87] M. van Veldhuizen. A new algorithm for the numerical approximation of an invariant curve. *SIAM Journal on Scientific and Statistical Computing*, 8(6):951–962, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- [van89] Henk A. van der Vorst. High performance preconditioning. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1174–1185, November 1989. CODEN SIJCD4. ISSN 0196-5204. Sparse matrix algorithms on supercomputers.
- [van92a] H. A. van der Vorst. BICGSTAB: A fast and smoothly converging variant of BI-CG for the solution of nonsymmetric linear systems. *SIAM Journal on Scientific and Statistical Computing*, 13(2):631–644, March 1992. CODEN SIJCD4. ISSN 0196-5204.
- [van92b] **vanKan:1986:SOA**
- [Var82] J. M. Varah. A spline least squares method for numerical parameter estimation in differential equations. *SIAM Journal on Scientific and Statistical Computing*, 3(1):28–46, March 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Var83] J. M. Varah. Pitfalls in the numerical solution of linear ill-posed problems. *SIAM Journal on Scientific and Statistical Computing*, 4(2):164–176, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Var85] J. M. Varah. On fitting exponentials by nonlinear least squares. *SIAM Journal on Scientific and Statistical Computing*, 6(1):30–44, January 1985. CODEN SIJCD4. ISSN 0196-5204.
- [Var86] J. M. Varah. A generalization of the Frank matrix. *SIAM Journal on Scientific and Statistical Computing*, 7(3):835–839, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- vanVeldhuizen:1992:AIM**
- M. van Veldhuizen. Approximation of the invariant manifold in the Josephson equation. *SIAM Journal on Scientific and Statistical Computing*, 13(3):666–675, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- Varah:1982:SLS**
- Varah:1983:PNS**
- Varah:1985:FEN**
- Varah:1986:GFM**
- vanderVorst:1989:HPP**
- vanderVorst:1992:BCF**



- [Var90] **Varah:1990:RSH**  
 J. M. Varah. Relative sizes of the Hessian terms in nonlinear parameter estimation. *SIAM Journal on Scientific and Statistical Computing*, 11(1):174–179, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Vav91] **Vavasis:1991:ADP**  
 Stephen A. Vavasis. Automatic domain partitioning in three dimensions. *SIAM Journal on Scientific and Statistical Computing*, 12(4):950–970, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [VBH92] **Vermeulen:1992:IPB**  
 A. H. Vermeulen, R. H. Bartels, and G. R. Heppler. Integrating products of B-splines. *SIAM Journal on Scientific and Statistical Computing*, 13(4):1025–1038, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [VC89] **Voss:1989:ESL**  
 David A. Voss and Mark J. Casper. Efficient split linear multistep methods for stiff ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 10(5):990–999, September 1989. CODEN SIJCD4. ISSN 0196-5204.
- [vd82] **vanderHouwen:1982:PCG**  
 P. J. van der Houwen and H. B. de Vries. Preconditioning and coarse grid corrections in the solution of the initial value problem for nonlinear partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 3(4):473–485, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [Vd85] **Verwer:1985:GEF**  
 J. G. Verwer and H. B. de Vries. Global extrapolation of a first order splitting method. *SIAM Journal on Scientific and Statistical Computing*, 6(3):771–780, July 1985. CODEN SIJCD4. ISSN 0196-5204.
- [vD89] **vanderVorst:1989:VLR**  
 H. A. van der Vorst and K. Dekker. Vectorization of linear recurrence relations. *SIAM Journal on Scientific and Statistical Computing*, 10(1):27–35, January 1989. CODEN SIJCD4. ISSN 0196-5204.
- [vdHS91] **vanderHouwen:1991:IRK**  
 P. J. van der Houwen and B. P. Sommeijer. Iterated Runge–Kutta methods on parallel computers. *SIAM Journal on Scientific and Statistical Computing*, 12(5):1000–1028, September 1991. CODEN SIJCD4. ISSN 0196-5204.
- [VE92] **Vassilevski:1992:CCS**  
 Panayot S. Vassilevski and Maya H. Etova. Computation of constants in the strengthened Cauchy inequality for elliptic bilinear forms with anisotropy. *SIAM Journal on Scientific and Statistical Computing*, 13(3):655–665, May 1992. CODEN SIJCD4. ISSN 0196-5204.

- [Vel90] Arthur E. P. Veldman. “missing” boundary conditions? Discretize first, substitute next, and combine later. *SIAM Journal on Scientific and Statistical Computing*, 11(1):82–91, January 1990. CODEN SIJCD4. ISSN 0196-5204.
- [VPL92] P. S. Vassilevski, S. I. Petrova, and R. D. Lazarov. Finite difference schemes on triangular cell-centered grids with local refinement. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1287–1313, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [Ves91] Vítězslav Veselý. Fast cell-structured algorithm for digit reversal of arbitrary length. *SIAM Journal on Scientific and Statistical Computing*, 12(2):298–310, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [VG83] William M. Visscher and Aaron S. Goldman. Estimating the distribution of spherical particles from plane sections: an optimal algorithm for solution of the Abel integral equation. *SIAM Journal on Scientific and Statistical Computing*, 4(2):280–290, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [VP92] Stefan Vandewalle and Robert Piessens. Efficient parallel algorithms for solving initial-boundary value and time-periodic parabolic partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 13(6):1330–1346, November 1992. CODEN SIJCD4. ISSN 0196-5204.
- [VW88] Paul Van Dooren and Michel Verhaegen. Condensed forms for efficient time-invariant Kalman filtering. *SIAM Journal on Scientific and Statistical Computing*, 9(3):516–530, May 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Wah81] Grace Wahba. Spline interpolation and smoothing on the sphere. *SIAM Journal on Scientific and Statistical Computing*, 2(1):5–16, March 1981. CODEN SIJCD4. ISSN 0196-5204. See erratum [Wah82].
- [Wah82] Grace Wahba. Erratum: “Spline interpolation and smoothing on the sphere”. *SIAM Journal on Scientific and Statistical Computing*, 3(3):385–386, September 1982. CODEN SIJCD4. ISSN 0196-5204. See [Wah81].
- [Wal88] Homer F. Walker. Implementation of the GMRES method

- using Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 9(1):152–163, January 1988. CODEN SIJCD4. ISSN 0196-5204.
- [Wal91] Noel J. Walkington. Axially symmetric acoustic wave propagation through flows with vorticity. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1438–1456, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Ward81] Robert C. Ward. Balancing the generalized eigenvalue problem. *SIAM Journal on Scientific and Statistical Computing*, 2(2):141–152, June 1981. CODEN SIJCD4. ISSN 0196-5204.
- [War84] Robert C. Ward. Sparse Matrix Symposium. *SIAM Journal on Scientific and Statistical Computing*, 5(3):497–743, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Wat80] Layne T. Watson. Solving finite difference approximations to nonlinear two-point boundary value problems by a homotopy method. *SIAM Journal on Scientific and Statistical Computing*, 1(4):467–480, December 1980. CODEN SIJCD4. ISSN 0196-5204.
- [Wat83a] David S. Watkins. An initialization program for separably stiff systems. *SIAM Journal on Scientific and Statistical Computing*, 4(2):188–196, June 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Wat83b] G. A. Watson. An algorithm for the single facility location problem using the Jaccard metric. *SIAM Journal on Scientific and Statistical Computing*, 4(4):748–756, December 1983. CODEN SIJCD4. ISSN 0196-5204.
- [Web84] H. Weber. An efficient technique for the computation of stable bifurcation branches. *SIAM Journal on Scientific and Statistical Computing*, 5(2):332–348, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [Web92] Michael Weba. Simulation and approximation of stochastic processes by spline functions. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1085–1096, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [wEC90] King wah Eric Chu. Bordered matrices, singular systems, and ergodic Markov chains. *SIAM Journal on Scientific and Statistical Computing*, 11(4):688–701, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Wei92] Pai Tang Wei. Generalized Schwarz splittings. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1085–1096, September 1992. CODEN SIJCD4. ISSN 0196-5204.

- nal on Scientific and Statistical Computing*, 13(2):573–595, March 1992. CODEN SIJCD4. ISSN 0196-5204. [WH87]
- Wesseling:1982:TPA**
- [Wes82] P. Wesseling. Theoretical and practical aspects of a multi-grid method. *SIAM Journal on Scientific and Statistical Computing*, 3(4):387–407, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- Westbrook:1984:MVI**
- [Wes84] D. R. Westbrook. A mixed variational inequality boundary iteration method for some free boundary problems. *SIAM Journal on Scientific and Statistical Computing*, 5(1):192–202, March 1984. CODEN SIJCD4. ISSN 0196-5204.
- Wang:1983:NMS**
- [WG83] J. Y. Wang and B. S. Garbow. A numerical method for solving inverse real symmetric eigenvalue problems. *SIAM Journal on Scientific and Statistical Computing*, 4(1):45–51, March 1983. CODEN SIJCD4. ISSN 0196-5204.
- Wright:1985:ANL**
- [WH85] S. J. Wright and J. N. Holt. Algorithms for nonlinear least squares with linear inequality constraints. *SIAM Journal on Scientific and Statistical Computing*, 6(4):1033–1048, October 1985. CODEN SIJCD4. ISSN 0196-5204. [Wor90]
- Weideman:1987:RSA**
- J. A. C. Weideman and B. M. Herbst. Recurrence in semidiscrete approximations of the nonlinear Schrödinger equation. *SIAM Journal on Scientific and Statistical Computing*, 8(6):988–1004, November 1987. CODEN SIJCD4. ISSN 0196-5204.
- Wittum:1989:RIS**
- [Wit89] Gabriel Wittum. On the robustness of *ILU* smoothing. *SIAM Journal on Scientific and Statistical Computing*, 10(4):699–717, July 1989. CODEN SIJCD4. ISSN 0196-5204.
- Womersley:1986:CDL**
- [Wom86] R. S. Womersley. Censored discrete linear  $\ell_1$  approximation. *SIAM Journal on Scientific and Statistical Computing*, 7(1):105–122, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- Womble:1990:TSA**
- [Wom90] David E. Womble. A time-stepping algorithm for parallel computers. *SIAM Journal on Scientific and Statistical Computing*, 11(5):824–837, September 1990. CODEN SIJCD4. ISSN 0196-5204.
- Worley:1990:ETC**
- Patrick H. Worley. The effect of time constraints on scaled speedup. *SIAM Journal on Scientific and Statistical Computing*, 11(5):838–858, September 1990. CODEN SIJCD4. ISSN 0196-5204.

- [Wor91] Patrick H. Worley. Limits on parallelism in the numerical solution of linear partial differential equations. *SIAM Journal on Scientific and Statistical Computing*, 12(1):1–35, January 1991. CODEN SIJCD4. ISSN 0196-5204.
- [WP90] S. J. Wright and V. Pereyra. Adaptation of a two-point boundary value problem solver to a vector-multiprocessor environment. *SIAM Journal on Scientific and Statistical Computing*, 11(3):425–449, May 1990. CODEN SIJCD4. ISSN 0196-5204.
- [Wri91] Stephen J. Wright. Parallel algorithms for banded linear systems. *SIAM Journal on Scientific and Statistical Computing*, 12(4):824–842, July 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Wri92] Stephen J. Wright. Stable parallel algorithms for two-point boundary value problems. *SIAM Journal on Scientific and Statistical Computing*, 13(3):742–764, May 1992. CODEN SIJCD4. ISSN 0196-5204.
- [WRWD84] S. Wold, A. Ruhe, H. Wold, and W. J. Dunn III. The collinearity problem in linear regression. the partial least squares (PLS) approach to generalized inverses. *SIAM Journal on Scientific and Statistical Computing*, 5(3):735–743, September 1984. CODEN SIJCD4. ISSN 0196-5204.
- [WS83] Daniel S. Watanabe and Sumantri Slamet. Numerical simulation of hot-electron phenomena. *SIAM Journal on Scientific and Statistical Computing*, 4(3):436–451, September 1983. CODEN SIJCD4. ISSN 0196-5204.
- [WS84] Daniel S. Watanabe and Qasim M. Sheikh. One-leg formulas for stiff ordinary differential equations. *SIAM Journal on Scientific and Statistical Computing*, 5(2):489–496, June 1984. CODEN SIJCD4. ISSN 0196-5204.
- [WS86] H. A. Watts and L. F. Shampine. Smoother interpolants for Adams codes. *SIAM Journal on Scientific and Statistical Computing*, 7(1):334–345, January 1986. CODEN SIJCD4. ISSN 0196-5204.
- [WS87] Layne T. Watson and L. Ridgway Scott. Solving Galerkin approximations to nonlinear two-point boundary value problems by a globally convergent homotopy method. *SIAM Journal on Scientific and Statistical Computing*, 8(5):768–789, September 1987. CODEN SIJCD4. ISSN 0196-5204.
- [WS88] R. Wolke and H. Schwetlick. Iteratively reweighted least squares:

- algorithms, convergence analysis, and numerical comparisons. *SIAM Journal on Scientific and Statistical Computing*, 9(5):907–921, September 1988. CODEN SIJCD4. ISSN 0196-5204.
- [WS91] J. Kenneth Wolfenbarger and John H. Seinfeld. Regularized solutions to the aerosol data inversion problem. *SIAM Journal on Scientific and Statistical Computing*, 12(2):342–361, March 1991. CODEN SIJCD4. ISSN 0196-5204.
- [WW90] M. A. Williams and D. G. Wilson. Iterative solution of a nonlinear system arising in phase-change problems. *SIAM Journal on Scientific and Statistical Computing*, 11(6):1087–1101, November 1990. CODEN SIJCD4. ISSN 0196-5204.
- [YFI89] Eiki Yamakawa, Masao Fukushima, and Toshihide Ibaraki. An efficient trust region algorithm for minimizing nondifferentiable composite functions. *SIAM Journal on Scientific and Statistical Computing*, 10(3):562–580, May 1989. CODEN SIJCD4. ISSN 0196-5204.
- [Yip86] E. L. Yip. A note on the stability of solving a rank- $p$  modification of a linear system by the Sherman–Morrison–Woodbury formula. *SIAM Journal on Scientific and Statistical Computing*, 7(2):507–513, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [YK86] Zhong Hua Yang and H. B. Keller. A direct method for computing higher order folds. *SIAM Journal on Scientific and Statistical Computing*, 7(2):351–361, April 1986. CODEN SIJCD4. ISSN 0196-5204.
- [YL90] S. Yakowitz and E. Lugosi. Random search in the presence of noise, with application to machine learning. *SIAM Journal on Scientific and Statistical Computing*, 11(4):702–712, July 1990. CODEN SIJCD4. ISSN 0196-5204.
- [YMJ+89] David P. Young, Robin G. Melvin, Forrester T. Johnson, John E. Bussioletti, Laurence B. Wigton, and Satish S. Samant. Application of sparse matrix solvers as effective preconditioners. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1186–1199, November 1989. CODEN SIJCD4. ISSN 0196-5204. Sparse matrix algorithms on supercomputers.
- [YWBJ86] David P. Young, Alex C. Woo, John E. Bussioletti, and Forrester T. Johnson. An exterior Poisson solver using fast direct methods and boundary integral

**Wolfenbarger:1991:RSA**

**Yang:1986:DMC**

**Williams:1990:ISN**

**Yakowitz:1990:RSP**

**Yamakawa:1989:ETR**

**Young:1989:ASM**

**Yip:1986:NSS**

**Young:1986:EPS**

- equations with applications to nonlinear potential flow. *SIAM Journal on Scientific and Statistical Computing*, 7(3):1009–1021, July 1986. CODEN SIJCD4. ISSN 0196-5204.
- [ZBS92] Xiaodong Zhang, Richard H. Byrd, and Robert B. Schnabel. Parallel methods for solving nonlinear block bordered systems of equations. *SIAM Journal on Scientific and Statistical Computing*, 13(4):841–859, July 1992. CODEN SIJCD4. ISSN 0196-5204.
- [ZJ91] Feng Zhao and S. Lennart Johnsson. The parallel multipole method on the Connection Machine. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1420–1437, November 1991. CODEN SIJCD4. ISSN 0196-5204.
- [Zla81] Zahari Zlatev. Modified diagonally implicit Runge-Kutta methods. *SIAM Journal on Scientific and Statistical Computing*, 2(3):321–334, September 1981. CODEN SIJCD4. ISSN 0196-5204.
- [ZP92] Stavros A. Zenios and Mustafa Ç. Pinar. Parallel block-partitioning of truncated Newton for nonlinear network optimization. *SIAM Journal on Scientific and Statistical Computing*, 13(5):1173–1193, September 1992. CODEN SIJCD4. ISSN 0196-5204.
- [ZWS82] Zahari Zlatev, Jerzy Wasniewski, and Kjeld Schaumburg. Comparison of two algorithms for solving large linear systems. *SIAM Journal on Scientific and Statistical Computing*, 3(4):486–501, December 1982. CODEN SIJCD4. ISSN 0196-5204.
- [ZWS86] Zahari Zlatev, Jerzy Wasniewski, and Kjeld Schaumburg. Condition number estimators in a sparse matrix software. *SIAM Journal on Scientific and Statistical Computing*, 7(4):1175–1189, October 1986. CODEN SIJCD4. ISSN 0196-5204.
- [ZY92] David W. Zingg and Maurice Yarrow. A method of smooth bivariate interpolation for data given on a generalized curvilinear grid. *SIAM Journal on Scientific and Statistical Computing*, 13(3):687–693, May 1992. CODEN SIJCD4. ISSN 0196-5204.

**Zlatev:1982:CTA**

**Zlatev:1986:CNE**

**Zingg:1992:MSB**

**Zhang:1992:PMS**

**Zhao:1991:PMM**

**Zlatev:1981:MDI**

**Zenios:1992:PBP**