

Cumulative Author–Title Index 1997–2002¹

A

- R. A. Abagyan and M. Totrov, *Ab Initio* Folding of Peptides by the Optimal-Bias Monte Carlo Minimization Procedure, **151**, 402–421, 1999.
- S. S. Abarbanel and A. E. Chertock, Strict Stability of High-Order Compact Implicit Finite-Difference Schemes: The Role of Boundary Conditions for Hyperbolic PDEs, I, **160**, 42–66, 2000.
- S. S. Abarbanel, A. E. Chertock, and A. Yefet, Strict Stability of High-Order Compact Implicit Finite-Difference Schemes: The Role of Boundary Conditions for Hyperbolic PDEs, II, **160**, 67–87, 2000.
- S. Abarbanel and A. Ditkowski, Asymptotically Stable Fourth-Order Accurate Schemes for the Diffusion Equation on Complex Shapes, **133**, 279–288, 1997.
- S. Abarbanel and D. Gottlieb, A Mathematical Analysis of the PML Method, **134**, 357–363, 1997.
- S. Abarbanel, D. Gottlieb, and J. S. Hesthaven, Well-posed Perfectly Matched Layers for Advective Acoustics, **154**, 266–283, 1999.
- T. Abe, Derivation of the Lattice Boltzmann Method by Means of the Discrete Ordinate Method for the Boltzmann Equation, **131**, 241–246, 1997.
- R. Abgrall, Toward the Ultimate Conservative Scheme: Following the Quest, **167**, 277–315, 2001.
- R. Abgrall and S. Karni, Computations of Compressible Multifluids, **169**, 594–623, 2001.
- M. J. Ablowitz, B. M. Herbst, and C. M. Schober, On the Numerical Solution of the Sine–Gordon Equation. II. Performance of Numerical Schemes, **131**, 354–367, 1997.
- K. J. Abraham and L. M. Haines, A New Technique for Sampling Multi-modal Distributions, **155**, 380–386, 1999.
- A. G. Abrashkevich, M. S. Kaschiev, and S. I. Vinitzky, A New Method for Solving an Eigenvalue Problem for a System of Three Coulomb Particles within the Hyperspherical Adiabatic Representation, **163**, 328–348, 2000.
- Y. Achdou, O. Pironneau, and F. Valentin, Effective Boundary Conditions for Laminar Flows over Periodic Rough Boundaries, **147**, 187–218, 1998.
- D. Adalsteinsson and J. A. Sethian, A Level Set Approach to a Unified Model for Etching, Deposition, and Lithography. III: Redeposition, Reemission, Surface Diffusion, and Complex Simulations, **138**, 193–223, 1997.
- D. Adalsteinsson and J. A. Sethian, The Fast Construction of Extension Velocities in Level Set Methods, **148**, 2–22, 1999.
- M. L. Adams and P. F. Nowak, Asymptotic Analysis of a Computational Method for Time- and Frequency-Dependent Radiative Transfer, **146**, 366–403, 1998.
- N. A. Adams and S. Stolz, A Subgrid-Scale Deconvolution Approach for Shock Capturing, **178**, 391–426, 2002.
- C. Adler, R. Kneusel, and W. Younger, Chaos, Number Theory, and Computers, **166**, 165–172, 2001.
- G. Agresar, J. J. Linderman, G. Tryggvason, and K. G. Powell, An Adaptive, Cartesian, Front-Tracking Method for the Motion, Deformation and Adhesion of Circulating Cells, **143**, 346–380, 1998.
- V. Ahuja and L. N. Long, A Parallel Finite-Volume Runge–Kutta Algorithm for Electromagnetic Scattering, **137**, 299–320, 1997.
- N. Akaiwa, K. Thornton, and P. W. Voorhees, Large-Scale Simulations of Microstructural Evolution in Elastically Stressed Solids, **173**, 61–86, 2001.
- V. Akcelik, B. Jaramaz, and O. Ghattas, Nearly Orthogonal Two-Dimensional Grid Generation with Aspect Ratio Control, **171**, 805–821, 2001.
- O. Aktas and N. R. Aluru, A Combined Continuum/DSMC Technique for Multiscale Analysis of Microfluidic Fillets, **178**, 342–372, 2002.
- R. Albanese, G. Rubinacci, and F. Villone, An Integral Computational Model for Crack Simulation and Detection via Eddy Currents, **152**, 736–755, 1999.
- M. Albers, A Local Mesh Refinement Multigrid Method for 3-D Convection Problems with Strongly Variable Viscosity, **160**, 126–150, 2000.
- A. Albrecht, S. K. Cheung, K. S. Leung, and C. K. Wong, Stochastic Simulations of Two-Dimensional Composite Packings, **136**, 559–579, 1997.
- S. A. Alexander and R. L. Coldwell, Atomic and Molecular Calculations Using Quasirandom Numbers, **172**, 908–916, 2001.
- F. J. Alexander, A. L. Garcia, and D. M. Tartakovsky, Algorithm Refinement for Stochastic Partial Differential Equations. I. Linear Diffusion, **182**, 47–66, 2002.
- G. Allaire, S. Clerc, and S. Kokh, A Five-Equation Model for the Simulation of Interfaces between Compressible Fluids, **181**, 577–616, 2002.

¹ Boldface numbers indicate appropriate volume; lightface numbers indicate pagination.



- A. Allievi and R. Bermejo, A Generalized Particle Search–Locate Algorithm for Arbitrary Grids, **132**, 157–166, 1997.
- A. S. Almgren, J. B. Bell, P. Colella, L. H. Howell, and M. L. Welcome, A Conservative Adaptive Projection Method for the Variable Density Incompressible Navier–Stokes Equations, **142**, 1–46, 1998.
- B. Alpert, G. Beylkin, D. Gines, and L. Vozovoi, Adaptive Solution of Partial Differential Equations in Multiwavelet Bases, **182**, 149–190, 2002.
- B. Alpert, L. Greengard, and T. Hagstrom, Nonreflecting Boundary Conditions for the Time-Dependent Wave Equation, **180**, 270–296, 2002.
- B. Alpert, L. Greengard, and T. Hagstrom, An Integral Evolution Formula for the Wave Equation, **162**, 536–543, 2000.
- A. Alvarez, C.-C. Wang, and Z. Ye, A Numerical Algorithm of the Multiple Scattering from an Ensemble of Arbitrary Scatterers, **154**, 231–236, 1999.
- N. Al-Rawahi and G. Tryggvason, Numerical Simulation of Dendritic Solidification with Convection: Two-Dimensional Geometry, **180**, 471–496, 2002.
- H. M. Al-Rizzo, J. M. Tranquilla, S. M. Al-Amri, and H. T. Alhafid, Application of the Generalized Multipole Technique (GMT) to High-Frequency Electromagnetic Scattering from Perfectly Conducting and Dielectric Bodies of Revolution, **136**, 1–18, 1997.
- D. Ambrosi and L. Quartapelle, A Taylor–Galerkin Method for Simulating Nonlinear Dispersive Water Waves, **146**, 546–569, 1998.
- F. Amdjadi, P. J. Aston, and P. Plecháč, Symmetry Breaking Hopf Bifurcations in Equations with $O(2)$ Symmetry with Application to the Kuramoto–Sivashinsky Equation, **131**, 181–192, 1997.
- D. Y. Anistratov, M. L. Adams, and E. W. Larsen, Acceleration of the Nonlinear Corner-Balance Scheme by the Averaged Flux Method, **135**, 66–75, 1997.
- D. Y. Anistratov and E. W. Larsen, Nonlinear and Linear α -Weighted Methods for Particle Transport Problems, **173**, 664–684, 2001.
- S. Antonov, F.-J. Pfreundt, and J. Struckmeier, Adaptive Load Balance Techniques in Parallel Rarefied Gas Simulations, **138**, 400–418, 1997.
- A. Arakawa, Computational Design for Long-Term Numerical Integration of the Equations of Fluid Motion: Two-Dimensional Incompressible Flow. Part I, **135**, 103–114, 1997.
- T. D. Arber, A. W. Longbottom, C. L. Gerrard, and A. M. Milne, A Staggered Grid, Lagrangian–Eulerian Remap Code for 3-D MHD Simulations, **171**, 151–181, 2001.
- T. D. Arber and R. G. L. Vann, A Critical Comparison of Eulerian-Grid-Based Vlasov Solvers, **180**, 339–357, 2002.
- E. Arge and A. Kunoth, An Efficient ADI-Solver for Scattered Data Problems with Global Smoothing, **139**, 343–358, 1998.
- E. Arian, On the Coupling of Aerodynamic and Structural Design, **135**, 83–96, 1997.
- S. Armfield and R. Street, The Fractional-Step Method for the Navier–Stokes Equations on Staggered Grids: The Accuracy of Three Variations, **153**, 660–665, 1999.
- A. Arnold and M. Ehrhardt, Discrete Transparent Boundary Conditions for Wide Angle Parabolic Equations in Underwater Acoustics, **145**, 611–638, 1998.
- M. Arora and P. L. Roe, On Postshock Oscillations Due to Shock Capturing Schemes in Unsteady Flows, **130**, 25–40, 1997.
- M. Arora and P. L. Roe, A Well-Behaved TVD Limiter for High-Resolution Calculations of Unsteady Flow, **132**, 3–11, 1997.
- K. M. Arthurs, L. C. Moore, C. S. Peskin, E. B. Pitman, and H. E. Layton, Modeling Arteriolar Flow and Mass Transport Using the Immersed Boundary Method, **147**, 402–440, 1998.
- T. D. Aslam, A Level-Set Algorithm for Tracking Discontinuities in Hyperbolic Conservation Laws. I. Scalar Equations, **167**, 413–438, 2001.
- N. Aslan, MHD-A: A Fluctuation Splitting Wave Model for Planar Magnetohydrodynamics, **153**, 437–466, 1999.
- N. Aslan and T. Kammash, Developing Numerical Fluxes with New Sonic Fix for MHD Equations, **133**, 43–55, 1997.
- A. Aslanyan and E. B. Davies, Separation of Variables in Deformed Cylinders, **174**, 327–344, 2001.
- F. Assous, P. Ciarlet, Jr., and J. Segré, Numerical Solution to the Time-Dependent Maxwell Equations in Two-Dimensional Singular Domains: The Singular Complement Method, **161**, 218–249, 2000.
- F. Assous, P. Degond, and J. Segré, A New Scheme to Treat the Numerical Tcherenkov Instability for Electromagnetic Particle Simulations, **138**, 171–192, 1997.
- S. Asvadurov, V. Druskin, and L. Knizhnerman, Application of the Difference Gaussian Rules to Solution of Hyperbolic Problems, **158**, 116–135, 2000.
- S. Asvadurov, V. Druskin, and L. Knizhnerman, Application of the Difference Gaussian Rules to Solution of Hyperbolic Problems. II. Global Expansion, **175**, 24–49, 2002.
- F. Auteri, J.-L. Guermont, and N. Parolini, Role of the LBB Condition in Weak Spectral Projection Methods, **174**, 405–420, 2001.
- F. Auteri and N. Parolini, A Mixed-Basis Spectral Projection Method, **175**, 1–23, 2002.
- F. Auteri, N. Parolini, and L. Quartapelle, Numerical Investigation on the Stability of Singular Driven Cavity Flow, **183**, 1–25, 2002.
- F. Auteri and L. Quartapelle, Galerkin Spectral Method for the Vorticity and Stream Function Equations, **149**, 306–332, 1999.
- F. Auteri, L. Quartapelle, and L. Vigeveno, Accurate ω - ψ Spectral Solution of the Singular Driven Cavity Problem, **180**, 597–615, 2002.
- F. Auteri and L. Quartapelle, Galerkin–Legendre Spectral Method for the 3D Helmholtz Equation, **161**, 454–483, 2000.
- A. Averbuch, M. Israeli, I. Ravve, and I. Yavneh, Computation for Electromigration in Interconnects of Micro-electronic Devices, **167**, 316–371, 2001.
- A. Averbuch, M. Israeli, and L. Vozovoi, Solution of Time-Dependent Diffusion Equations with Variable Coefficients Using Multiwavelets, **150**, 394–424, 1999.

- W. Axmann and P. Kuchment, An Efficient Finite Element Method for Computing Spectra of Photonic and Acoustic Band-Gap Materials. I. Scalar Case, **150**, 468–481, 1999.
- Y. Y. Azmy, Iterative Convergence Acceleration of Neutral Particle Transport Methods via Adjacent-Cell Preconditioners, **152**, 359–384, 1999.
- ## B
- E. Y. Backhaus, J. Fajans, and J. S. Wurtele, Application of Contour Dynamics to Systems with Cylindrical Boundaries, **145**, 462–468, 1998.
- S.-H. Bae and R. T. Lahey, Jr., On the Use of Nonlinear Filtering, Artificial Viscosity, and Artificial Heat Transfer for Strong Shock Computations, **153**, 575–595, 1999.
- T. Bagdonat and U. Motschmann, 3D Hybrid Simulation Code Using Curvilinear Coordinates, **183**, 470–485, 2002.
- J. Baglama, D. Calvetti, L. Reichel, and A. Ruttan, Computation of a Few Small Eigenvalues of a Large Matrix with Application to Liquid Crystal Modeling, **146**, 203–226, 1998.
- M. J. Baines, Introduction to “Approximate Riemann Solvers, Parameter Vectors, and Difference Schemes,” **135**, 249, 1997.
- G. Bal, Particle Transport through Scattering Regions with Clear Layers and Inclusions, **180**, 659–685, 2002.
- K. Balakrishnan and P. A. Ramachandran, A Particular Solution Trefftz Method for Non-linear Poisson Problems in Heat and Mass Transfer, **150**, 239–267, 1999.
- K. Balakrishnan and P. A. Ramachandran, Osculatory Interpolation in the Method of Fundamental Solution for Nonlinear Poisson Problems, **172**, 1–18, 2001.
- C. Baldwin, P. N. Brown, R. Falgout, F. Graziani, and J. Jones, Iterative Linear Solvers in a 2D Radiation–Hydrodynamics Code: Methods and Performance, **154**, 1–40, 1999.
- G. T. Balls and P. Colella, A Finite Difference Domain Decomposition Method Using Local Corrections for the Solution of Poisson’s Equation, **180**, 25–53, 2002.
- D. S. Balsara, Divergence-Free Adaptive Mesh Refinement for Magnetohydrodynamics, **174**, 614–648, 2001.
- D. S. Balsara and C.-W. Shu, Monotonicity Preserving Weighted Essentially Non-oscillatory Schemes with Increasingly High Order of Accuracy, **160**, 405–452, 2000.
- D. S. Balsara and D. Spicer, Maintaining Pressure Positivity in Magnetohydrodynamic Simulations, **148**, 133–148, 1999.
- D. S. Balsara and D. S. Spicer, A Staggered Mesh Algorithm Using High Order Godunov Fluxes to Ensure Solenoidal Magnetic Fields in Magnetohydrodynamic Simulations, **149**, 270–292, 1999.
- W. Bao and S. Jin, The Random Projection Method for Hyperbolic Conservation Laws with Stiff Reaction Terms, **163**, 216–248, 2000.
- W. Bao and S. Jin, The Random Projection Method for Stiff Multispecies Detonation Capturing, **178**, 37–57, 2002.
- W. Bao, S. Jin, and P. A. Markowich, On Time-Splitting Spectral Approximations for the Schrödinger Equation in the Semiclassical Regime, **175**, 487–524, 2002.
- G. Bao and T. Van, Modeling of Evanescent Energy in Optical Fibers, **161**, 700–717, 2000.
- S. G. Bardenhagen, Energy Conservation Error in the Material Point Method for Solid Mechanics, **180**, 383–403, 2002.
- L. B. Barichello and C. E. Siewert, The Searchlight Problem for Radiative Transfer in a Finite Slab, **157**, 707–726, 2000.
- S. R. M. Barros and J. W. Cárdenas, A Nonlinear Galerkin Method for the Shallow-Water Equations on Periodic Domains, **172**, 592–608, 2001.
- P. Bartello, A Comparison of Time Discretization Schemes for Two-Timescale Problems in Geophysical Fluid Dynamics, **179**, 268–285, 2002.
- T. J. Barth and J. A. Sethian, Numerical Schemes for the Hamilton–Jacobi and Level Set Equations on Triangulated Domains, **145**, 1–40, 1998.
- F. Bassi and S. Rebay, A High-Order Accurate Discontinuous Finite Element Method for the Numerical Solution of the Compressible Navier–Stokes Equations, **131**, 267–279, 1997.
- F. Bassi and S. Rebay, High-Order Accurate Discontinuous Finite Element Solution of the 2D Euler Equations, **138**, 251–285, 1997.
- W. J. D. Bateman, C. Swan, and P. H. Taylor, On the Efficient Numerical Simulation of Directionally Spread Surface Water Waves, **174**, 277–305, 2001.
- J. W. Bates, D. A. Knoll, W. J. Rider, R. B. Lowrie, and V. A. Mousseau, On Consistent Time-Integration Methods for Radiation Hydrodynamics in the Equilibrium Diffusion Limit: Low-Energy-Density Regime, **167**, 99–130, 2001.
- W. B. Bateson and D. W. Hewett, Grid and Particle Hydrodynamics: Beyond Hydrodynamics via Fluid Element Particle-in-Cell, **144**, 358–378, 1998.
- P. Batten, M. A. Leschziner, and U. C. Goldberg, Average-State Jacobians and Implicit-Methods for Compressible Viscous and Turbulent Flows, **137**, 38–78, 1997.
- R. B. Bauer, A Hybrid Adaptive ENO Scheme, **136**, 180–196, 1997.
- J. B. Bdzil, D. S. Stewart, and T. L. Jackson, Program Burn Algorithms Based on Detonation Shock Dynamics: Discrete Approximations of Detonation Flows with Discontinuous Front Models, **174**, 870–902, 2001.
- U. Becciani, V. Antonuccio-Delogu, and M. Gambera, A Modified Parallel Tree Code for N-Body Simulation of the Large-Scale Structure of the Universe, **163**, 118–132, 2000.
- J. C. Beck and A. P. Watkins, On the Development of Spray Submodels Based on Droplet Size Moments, **182**, 586–621, 2002.
- C. Beckermann, H.-J. Diepers, I. Steinbach, A. Karma, and X. Tong, Modeling Melt Convection in Phase-Field Simulations of Solidification, **154**, 468–496, 1999.
- G. Beckett, J. A. Mackenzie, A. Ramage, and D. M. Sloan, On The Numerical Solution of One-Dimensional PDEs Using Adaptive Methods Based on Equidistribution, **167**, 372–392, 2001.

- G. Beckett, J. A. Mackenzie, A. Ramage, and D. M. Sloan, Computational Solution of Two-Dimensional Unsteady PDEs Using Moving Mesh Methods, **182**, 478–495, 2002.
- G. Beckett, J. A. Mackenzie, and M. L. Robertson, A Moving Mesh Finite Element Method for the Solution of Two-Dimensional Stefan Problems, **168**, 500–518, 2001.
- M. L. Bégué, A. Ghizzo, and P. Bertrand, Two-Dimensional Vlasov Simulation of Raman Scattering and Plasma Beatwave Acceleration on Parallel Computers, **151**, 458–478, 1999.
- I. Beichl and F. Sullivan, Approximating the Permanent via Importance Sampling with Application to the Dimer Covering Problem, **149**, 128–147, 1999.
- A. J. C. Beliën, M. A. Botchev, J. P. Goedbloed, B. van der Holst, and R. Keppens, FINESSE: Axisymmetric MHD Equilibria with Flow, **182**, 91–117, 2002.
- P. M. Bellan, An Effective Numerical Method for Linear Model Conversion Problems, **136**, 654–659, 1997.
- E. V. Belova, R. E. Denton, and A. A. Chan, Hybrid Simulations of the Effects of Energetic Particles on Low-Frequency MHD Waves, **136**, 324–336, 1997.
- J.-D. Benamou and B. Després, A Domain Decomposition Method for the Helmholtz Equation and Related Optimal Control Problems, **136**, 68–82, 1997.
- J.-D. Benamou and I. Sollic, An Eulerian Method for Capturing Caustics, **162**, 132–163, 2000.
- A. F. Bennett and B. S. Chua, Open Boundary Conditions for Lagrangian Geophysical Fluid Dynamics, **153**, 418–436, 1999.
- B. A. V. Bennett and M. D. Smooke, Local Rectangular Refinement with Application to Nonreacting and Reacting Fluid Flow Problems, **151**, 684–727, 1999.
- M. Benzi, Preconditioning Techniques for Large Linear Systems: A Survey, **182**, 418–477, 2002.
- A. Berezovski and G. A. Maugin, Simulation of Thermoelastic Wave Propagation by Means of a Composite Wave-Propagation Algorithm, **168**, 249–264, 2001.
- F. Bertagnolio and O. Daube, Solution of the Div-curl Problem in Generalized Curvilinear Coordinates, **138**, 121–152, 1997.
- M. Bertagnolli, M. Marchese, G. Jacucci, I. St. Doltsinis, and S. Noelting, Thermomechanical Simulation of the Splashing of Ceramic Droplets on a Rigid Substrate, **133**, 205–221, 1997.
- M. Bertalmío, L.-T. Cheng, S. Osher, and G. Sapiro, Variational Problems and Partial Differential Equations on Implicit Surfaces, **174**, 759–780, 2001.
- E. Bertolazzi and G. Manzini, A Triangle-Based Unstructured Finite-Volume Method for Chemically Reactive Hypersonic Flows, **166**, 84–115, 2001.
- F. Bertrand and P. A. Tanguy, Krylov-Based Uzawa Algorithms for the Solution of the Stokes Equations Using Discontinuous-Pressure Tetrahedral Finite Elements, **181**, 617–638, 2002.
- A. Beskok and T. C. Warburton, An Unstructured *hp* Finite-Element Scheme for Fluid Flow and Heat Transfer in Moving Domains, **174**, 492–509, 2001.
- N. M. Bessonov and D. J. Song, Application of Vector Calculus to Numerical Simulation of Continuum Mechanics Problems, **167**, 22–38, 2001.
- P. Betsch and P. Steinmann, Inherently Energy Conserving Time Finite Elements for Classical Mechanics, **160**, 88–116, 2000.
- F. Beux, A. Iollo, M. V. Salvetti, and A. Soldati, Approximation and Reconstruction of the Electrostatic Field in Wire-Plate Precipitators by a Low-Order Model, **170**, 893–916, 2001.
- G. Beylkin, N. Coult, and M. J. Mohlenkamp, Fast Spectral Projection Algorithms for Density-Matrix Computations, **152**, 32–54, 1999.
- G. Beylkin and J. M. Keiser, On the Adaptive Numerical Solution of Nonlinear Partial Differential Equations in Wavelet Bases, **132**, 233–259, 1997.
- G. Beylkin, J. M. Keiser, and L. Vozovoi, A New Class of Time Discretization Schemes for the Solution of Nonlinear PDEs, **147**, 362–387, 1998.
- F. Bezdard and B. Després, An Entropic Solver for Ideal Lagrangian Magnetohydrodynamics, **154**, 65–89, 1999.
- K. Bhaganagar, D. Rempfer, and J. Lumley, Direct Numerical Simulation of Spatial Transition to Turbulence Using Fourth-Order Vertical Velocity Second-Order Vertical Vorticity Formulation, **180**, 200–228, 2002.
- M. Biava, D. Modugno, L. Quartapelle, and M. Stoppelli, Weak ψ - ω Formulation for Unsteady Flows in 2D Multiply Connected Domains, **177**, 209–232, 2002.
- B. Bidégaray, A. Bourgeade, and D. Reignier, Introducing Physical Relaxation Terms in Bloch Equations, **170**, 603–613, 2001.
- B. L. Bihari and D. Schwendeman, Multiresolution Schemes for the Reactive Euler Equations, **154**, 197–230, 1999.
- H. Bijl, M. H. Carpenter, V. N. Vatsa, and C. A. Kennedy, Implicit Time Integration Schemes for the Unsteady Compressible Navier–Stokes Equations: Laminar Flow, **179**, 313–329, 2002.
- H. Bijl and P. Wesseling, A Unified Method for Computing Incompressible and Compressible Flows in Boundary-Fitted Coordinates, **141**, 153–173, 1998.
- G. Billet and O. Luedin, Adaptive Limiters for Improving the Accuracy of the MUSCL Approach for Unsteady Flows, **170**, 161–183, 2001.
- S. J. Billett and E. F. Toro, On WAF-Type Schemes for Multidimensional Hyperbolic Conservation Laws, **130**, 1–24, 1997.
- S. J. Billett and E. F. Toro, On the Accuracy and Stability of Explicit Schemes for Multidimensional Linear Homogeneous Advection Equations, **131**, 247–250, 1997.
- C. K. Birdsall and D. Fuss, Clouds-in-Clouds, Clouds-in-Cells Physics for Many-Body Plasma Simulation, **135**, 141–148, 1997.
- E. G. Birgin, I. Chambouleyron, and J. M. Martínez, Estimation of the Optical Constants and the Thickness of Thin Films Using Unconstrained Optimization, **151**, 862–880, 1999.
- N. T. Bishop, R. Gómez, P. R. Holvorcem, R. A. Matzner, P. Papadopoulos, and J. Winicour, Cauchy–Characteristic Evolution and Wave-Forms, **136**, 140–167, 1997.
- S. Blanes and P. C. Moan, Splitting Methods for Non-autonomous Hamiltonian Equations, **170**, 205–230, 2001.
- E. Blayo, Compact Finite Difference Schemes for Ocean Models. 1. Ocean Waves, **164**, 241–257, 2000.

- J. A. Board, Jr., Introduction to “A Fast Algorithm for Particle Simulations,” **135**, 279, 1997.
- L. Bonaventura, A Semi-implicit Semi-Lagrangian Scheme Using the Height Coordinate for a Nonhydrostatic and Fully Elastic Model of Atmospheric Flows, **158**, 186–213, 2000.
- S. D. Bond, B. J. Leimkuhler, and B. B. Laird, The Nosé–Poincaré Method for Constant Temperature Molecular Dynamics, **151**, 114–134, 1999.
- F. D. R. Bonnet, D. B. Leinweber, and A. G. Williams, General Algorithm for Improved Lattice Actions on Parallel Computing Architectures, **170**, 1–17, 2001.
- P. A. M. Boomkamp, B. J. Boersma, R. H. M. Miesen, and G. V. Beijnon, A Chebyshev Collocation Method for Solving Two-Phase Flow Stability Problems, **132**, 191–200, 1997.
- D. Borba and W. Kerner, CASTOR-K: Stability Analysis of Alfvén Eigenmodes in the Presence of Energetic Ions in Tokamaks, **153**, 101–138, 1999.
- C. Börgers, A Fast Iterative Method for Computing Particle Beams Penetrating Matter, **133**, 323–339, 1997.
- L. Borges and P. Daripa, A Fast Parallel Algorithm for the Poisson Equation on a Disk, **169**, 151–192, 2001.
- L. Borges and S. Oliveira, A Parallel Davidson-Type Algorithm for Several Eigenvalues, **144**, 727–748, 1998.
- J. Borggaard and J. Burns, A PDE Sensitivity Equation Method for Optimal Aerodynamic Design, **136**, 366–384, 1997.
- A. Boriçi, A Lanczos Approach to the Inverse Square Root of a Large and Sparse Matrix, **162**, 123–131, 2000.
- J. P. Boris and D. L. Book, Flux-Corrected Transport. I. SHASTA, a Fluid Transport Algorithm that Works, **135**, 172–186, 1997.
- A. H. Boschitsch, M. O. Fenley, and W. K. Olson, A Fast Adaptive Multipole Algorithm for Calculating Screened-Coulomb (Yukawa) Interactions, **151**, 212–241, 1999.
- F. Bosisio, S. Micheletti, and R. Sacco, A Discretization Scheme for an Extended Drift-Diffusion Model Including Trap-Assisted Phenomena, **159**, 197–212, 2000.
- D. C. Bottino, Modeling Viscoelastic Networks and Cell Deformation in the Context of the Immersed Boundary Method, **147**, 86–113, 1998.
- M. Bouzidi, D. d’Humières, P. Lallemand, and L.-S. Luo, Lattice Boltzmann Equation on a Two-Dimensional Rectangular Grid, **172**, 704–717, 2001.
- K. J. Bowers, Accelerating a Particle-in-Cell Simulation Using a Hybrid Counting Sort, **173**, 393–411, 2001.
- J. C. Bowman, A. Zeiler, and D. Biskamp, A Multigrid Algorithm for Nonlocal Collisional Electrostatic Drift-Wave Turbulence, **158**, 239–261, 2000.
- T. L. Boyadjiev, M. D. Todorov, P. P. Fiziev, and S. S. Yazadjiev, Mathematical Modeling of Boson–Fermion Stars in the Generalized Scalar–Tensor Theories of Gravity, **166**, 253–270, 2001.
- J. P. Boyd, Pseudospectral/Delves–Freeman Computations of the Radiation Coefficient for Weakly Nonlocal Solitary Waves of the Third-Order Nonlinear Schrödinger Equation and their Relation to Hyperasymptotic Perturbation Theory, **138**, 665–694, 1997.
- J. P. Boyd, Two Comments on Filtering (Artificial Viscosity) for Chebyshev and Legendre Spectral and Spectral Element Methods: Preserving Boundary Conditions and Interpretation of the Filter as a Diffusion, **143**, 283–288, 1998.
- J. P. Boyd, A Comparison of Numerical Algorithms for Fourier Extension of the First, Second, and Third Kinds, **178**, 118–160, 2002.
- J. P. Boyd, Deleted Residuals, the QR-Factored Newton Iteration, and Other Methods for Formally Overdetermined Determinate Discretizations of Nonlinear Eigenproblems for Solitary, Cnoidal, and Shock Waves, **179**, 216–237, 2002.
- P. Boyle, A Novel Gauge Invariant Multistate Smearing Technique, **179**, 349–370, 2002.
- M. Brady, A. Leonard, and D. I. Pullin, Regularized Vortex Sheet Evolution in Three Dimensions, **146**, 520–545, 1998.
- F. Brau and C. Semay, The Three-Dimensional Fourier Grid Hamiltonian Method, **139**, 127–136, 1998.
- E. Braverman, M. Israeli, A. Averbuch, and L. Vozvoi, A Fast 3D Poisson Solver of Arbitrary Order Accuracy, **144**, 109–136, 1998.
- L. Brieger and G. Lecca, Parallel Multigrid Preconditioning of the Conjugate Gradient Method for Systems of Subsurface Hydrology, **142**, 148–162, 1998.
- M. Brio, A. R. Zakharian, and G. M. Webb, Two-Dimensional Riemann Solver for Euler Equations of Gas Dynamics, **167**, 177–195, 2001.
- M. O. Bristeau, R. Glowinski, and J. Périaux, Controllability Methods for the Computation of Time-Periodic Solutions: Application to Scattering, **147**, 265–292, 1998.
- D. L. Brown, R. Cortez, and M. L. Minion, Accurate Projection Methods for the Incompressible Navier–Stokes Equations, **168**, 464–499, 2001.
- D. J. Brown and R. M. Stringfield, Iterative Methods Applied to Matrix Equations Found in Calculating Spheroidal Functions, **159**, 329–343, 2000.
- S. Broyde and B. E. Hingerty, Effective Computational Strategies for Determining Structures of Carcinogen-Damaged DNA, **151**, 313–332, 1999.
- G. Brun, J.-M. Hérard, D. Jeandel, and M. Uhlmann, An Approximate Riemann Solver for Second-Moment Closures, **151**, 990–996, 1999.
- O. P. Bruno and L. A. Kunyansky, A Fast, High-Order Algorithm for the Solution of Surface Scattering Problems: Basic Implementation, Tests, and Applications, **169**, 80–110, 2001.
- K. Bryan, A Numerical Method for the Study of the Circulation of the World Ocean, **135**, 154–169, 1997.
- D. Brydon, J. Pearson, and M. Marder, Solving Stiff Differential Equations with the Method of Patches, **144**, 280–298, 1998.
- C. J. Budd, S. Chen, and R. D. Russell, New Self-Similar Solutions of the Nonlinear Schrödinger Equation with Moving Mesh Computations, **152**, 756–789, 1999.
- C. Buet and S. Cordier, Conservative and Entropy Decaying Numerical Scheme for the Isotropic Fokker–Planck–Landau Equation, **145**, 228–245, 1998.
- C. Buet and S. Cordier, Numerical Analysis of the Isotropic Fokker–Planck–Landau Equation, **179**, 43–67, 2002.
- C. Buet, S. Cordier, P. Degond, and M. Lemou, Fast Algorithms for Numerical, Conservative, and Entropy

- Approximations of the Fokker–Planck–Landau Equation, **133**, 310–322, 1997.
- A. Burbeau, P. Sagaut, and C.-H. Bruneau, A Problem-Independent Limiter for High-Order Runge–Kutta Discontinuous Galerkin Methods, **169**, 111–150, 2001.
- P. Burchard, L.-T. Cheng, B. Merriman, and S. Osher, Motion of Curves in Three Spatial Dimensions Using a Level Set Approach, **170**, 720–741, 2001.
- T. M. Burton and J. K. Eaton, Analysis of a Fractional-Step Method on Overset Grids, **177**, 336–364, 2002.
- S. Burtsev, R. Camassa, and I. Timofeyev, Numerical Algorithms for the Direct Spectral Transform with Applications to Nonlinear Schrödinger Type Systems, **147**, 166–186, 1998.
- S. R. Buss, Accurate and Efficient Simulation of Rigid-Body Rotations, **164**, 377–406, 2000.
- D. M. Bylander and L. Kleinman, White and Bird’s Formulation of Gradient-Corrected Exchange-Correlation Potentials Applied to Atoms, **136**, 599–602, 1997.
- C**
- X. Cai, H. P. Langtangen, B. F. Nielsen, and A. Tveito, A Finite Element Method for Fully Nonlinear Water Waves, **143**, 544–568, 1998.
- W. Cai and T. Yu, Fast Calculations of Dyadic Green’s Functions for Electromagnetic Scattering in a Multilayered Medium, **165**, 1–21, 2000.
- W. Cai and W. Zhang, An Adaptive Spline Wavelet ADI (SW-ADI) Method for Two-Dimensional Reaction–Diffusion Equations, **139**, 92–126, 1998.
- R. Caiden, R. P. Fedkiw, and C. Anderson, A Numerical Method for Two-Phase Flow Consisting of Separate Compressible and Incompressible Regions, **166**, 1–27, 2001.
- D. Calhoun, A Cartesian Grid Method for Solving the Two-Dimensional Streamfunction–Vorticity Equations in Irregular Regions, **176**, 231–275, 2002.
- D. Calhoun and R. J. LeVeque, A Cartesian Grid Finite-Volume Method for the Advection–Diffusion Equation in Irregular Geometries, **157**, 143–180, 2000.
- F. Callino, P. Joly, and F. Millot, Fictitious Domain Method for Unsteady Problems: Application to Electromagnetic Scattering, **138**, 907–938, 1997.
- J. C. Campbell and M. J. Shashkov, A Tensor Artificial Viscosity Using a Mimetic Finite Difference Algorithm, **172**, 739–765, 2001.
- R. G. Campos and L. O. Pimentel, Hydrogen Atom in a Finite Linear Space, **160**, 179–194, 2000.
- L. F. Canino, J. J. Ottusch, M. A. Stalzer, J. L. Visher, and S. M. Wandzura, Numerical Solution of the Helmholtz Equation in 2D and 3D Using a High-Order Nyström Discretization, **146**, 627–663, 1998.
- A. Canning, L. W. Wang, A. Williamson, and A. Zunger, Parallel Empirical Pseudopotential Electronic Structure Calculations for Million Atom Systems, **160**, 29–41, 2000.
- B. Cano and A. M. Stuart, Underresolved Simulations of Heat Baths, **169**, 193–214, 2001.
- W. Cao, W. Huang, and R. D. Russell, An r -Adaptive Finite Element Method Based upon Moving Mesh PDEs, **149**, 221–244, 1999.
- W. Cao, W. Huang, and R. D. Russell, An Error Indicator Monitor Function for an r -Adaptive Finite-Element Method, **170**, 871–892, 2001.
- R. Capuzzo-Dolcetta and P. Micocchi, A Comparison between the Fast Multipole Algorithm and the Tree-Code to Evaluate Gravitational Forces in 3-D, **143**, 29–48, 1998.
- E. J. Caramana, Timestep Relaxation with Symmetry Preservation on High Aspect-Ratio Angular or Tapered Grids, **166**, 173–185, 2001.
- E. J. Caramana, D. E. Burton, M. J. Shashkov, and P. P. Whalen, The Construction of Compatible Hydrodynamics Algorithms Utilizing Conservation of Total Energy, **146**, 227–262, 1998.
- E. J. Caramana, C. L. Rousculp, and D. E. Burton, A Compatible, Energy and Symmetry Preserving Lagrangian Hydrodynamics Algorithm in Three-Dimensional Cartesian Geometry, **157**, 89–119, 2000.
- E. J. Caramana and M. J. Shashkov, Elimination of Artificial Grid Distortion and Hourglass-Type Motions by Means of Lagrangian Subzonal Masses and Pressures, **142**, 521–561, 1998.
- E. J. Caramana, M. J. Shashkov, and P. P. Whalen, Formulations of Artificial Viscosity for Multi-dimensional Shock Wave Computations, **144**, 70–97, 1998.
- E. J. Caramana and P. P. Whalen, Numerical Preservation of Symmetry Properties of Continuum Problems, **141**, 174–198, 1998.
- J. M. Carcione and H. B. Helle, Numerical Solution of the Poroviscoelastic Wave Equation on a Staggered Mesh, **154**, 520–527, 1999.
- J. M. Carcione and G. Seriani, Wave Simulation in Frozen Porous Media, **170**, 676–695, 2001.
- P. Cargo and G. Gallice, Roe Matrices for Ideal MHD and Systematic Construction of Roe Matrices for Systems of Conservation Laws, **136**, 446–466, 1997.
- M. Carley, A Triangulated Vortex Method for the Axisymmetric Euler Equations, **180**, 616–641, 2002.
- M. H. Carpenter, J. Nordström and D. Gottlieb, A Stable and Conservative Interface Treatment of Arbitrary Spatial Accuracy, **148**, 341–365, 1999.
- P. Čárský and M. Poláček, Incomplete Gamma $F_m(x)$ Functions for Real Negative and Complex Arguments, **143**, 259–265, 1998.
- P. Čárský and M. Poláček, Evaluation of Molecular Integrals in a Mixed Gaussian and Plane-Wave Basis by Rys Quadrature, **143**, 266–277, 1998.
- K. L. Cartwright, J. P. Verboncoeur, and C. K. Birdsall, Loading and Injection of Maxwellian Distributions in Particle Simulations, **162**, 483–513, 2000.
- M. S. Carvalho and L. E. Scriven, Flows in Forward Deformable Roll Coating Gaps: Comparison Between Spring and Plane-Strain Models of Roll Cover, **138**, 449–479, 1997.
- M. S. Carvalho and L. E. Scriven, Three-Dimensional Stability Analysis of Free Surface Flows: Application to Forward Deformable Roll Coating, **151**, 534–562, 1999.
- H. D. Cenicerros and T. Y. Hou, An Efficient Dynamically Adaptive Mesh for Potentially Singular Solutions, **172**, 609–639, 2001.

- H. D. Ceniceros and H. Si, Computation of Axisymmetric Suction Flow through Porous Media in the Presence of Surface Tension, **165**, 237–260, 2000.
- G. Černe, S. Petelin, and I. Tiselj, Coupling of the Interface Tracking and the Two-Fluid Models for the Simulation of Incompressible Two-Phase Flow, **171**, 776–804, 2001.
- L. Chacón, D. C. Barnes, D. A. Knoll, and G. H. Miley, An Implicit Energy-Conservative 2D Fokker-Planck Algorithm. I. Difference Scheme, **157**, 618–653, 2000.
- L. Chacón, D. C. Barnes, D. A. Knoll, and G. H. Miley, An Implicit Energy-Conservative 2D Fokker-Planck Algorithm. II. Jacobian-Free Newton-Krylov Solver, **157**, 654–682, 2000.
- L. Chacón, D. A. Knoll, and J. M. Finn, An Implicit, Nonlinear Reduced Resistive MHD Solver, **178**, 15–36, 2002.
- D. Chae, C. Kim, and O.-H. Rho, Development of an Improved Gas-Kinetic BGK Scheme for Inviscid and Viscous Flows, **158**, 1–27, 2000.
- D. Chae, C. Kim, and O. H. Rho, Reply to *Comment on "Development of an Improved Gas-Kinetic BGK Scheme for Inviscid and Viscous Flows"*, **171**, 848–850, 2001.
- C. Chalons and P. G. LeFloch, High-Order Entropy-Conservative Schemes and Kinetic Relations for van der Waals Fluids, **168**, 184–206, 2001.
- N. J. Champagne II, J. G. Berryman, and H. M. Buettner, FDFD: A 3D Finite-Difference Frequency-Domain Code for Electromagnetic Induction Tomography, **170**, 830–848, 2001.
- W. Chang, F. Giraldo, and B. Perot, Analysis of an Exact Fractional Step Method, **180**, 183–199, 2002.
- Q. Chang, E. Jia, and W. Sun, Difference Schemes for Solving the Generalized Nonlinear Schrödinger Equation, **148**, 397–415, 1999.
- S.-C. Chang, X.-Y. Wang, and C.-Y. Chow, The Space-Time Conservation Element and Solution Element Method: A New High-Resolution and Genuinely Multidimensional Paradigm for Solving Conservation Laws, **156**, 89–136, 1999.
- S.-C. Chang, X.-Y. Wang, and W.-M. To, Application of the Space-Time Conservation Element and Solution Element Method to One-Dimensional Convection-Diffusion Problems, **165**, 189–215, 2000.
- A. K. Chaniotis, D. Poulikakos, and P. Koumoutsakos, Remeshed Smoothed Particle Hydrodynamics for the Simulation of Viscous and Heat Conducting Flows, **182**, 67–90, 2002.
- A. A. Charakh'yan and S. A. Ivanenko, A Variational Form of the Winslow Grid Generator, **136**, 385–398, 1997.
- X. Chen and Y. M. Chen, Efficient Algorithm for Solving Inverse Source Problems of a Nonlinear Diffusion Equation in Microwave Heating, **132**, 374–383, 1997.
- Z. Chen and R. E. Ewing, Comparison of Various Formulations of Three-Phase Flow in Porous Media, **132**, 362–373, 1997.
- R. Chen and H. Guo, Determination of Eigen-States via Lanczos-Based Forward Substitution and Filter-Diagonalization, **136**, 494–502, 1997.
- H. Chen and J. S. Marshall, A Lagrangian Vorticity Method for Two-Phase Particulate Flows with Two-Way Phase Coupling, **148**, 169–198, 1999.
- S. Chen, B. Merriman, M. Kang, R. E. Caflisch, C. Ratsch, L.-T. Cheng, M. Gyure, R. P. Fedkiw, C. Anderson, and S. Osher, A Level Set Method for Thin Film Epitaxial Growth, **167**, 475–500, 2001.
- S. Chen, B. Merriman, S. Osher, and P. Smereka, A Simple Level Set Method for Solving Stefan Problems, **135**, 8–29, 1997.
- H. Chen, Y. Su, and B. D. Shizgal, A Direct Spectral Collocation Poisson Solver in Polar and Cylindrical Coordinates, **160**, 453–469, 2000.
- W. Chen, T. Zhong, and C. Shu, A Lyapunov Formulation for Efficient Solution of the Poisson and Convection-Diffusion Equations by the Differential Quadrature Method, **141**, 78–84, 1998.
- L.-T. Cheng, P. Burchard, B. Merriman, and S. Osher, Motion of Curves Constrained on Surfaces Using a Level-Set Approach, **175**, 604–644, 2002.
- H. Cheng and L. Greengard, On the Numerical Evaluation of Electrostatic Fields in Dense Random Dispersions of Cylinders, **136**, 629–639, 1997.
- H. Cheng, L. Greengard, and V. Rokhlin, A Fast Adaptive Multipole Algorithm in Three Dimensions, **155**, 468–498, 1999.
- H.-B. Cheong, Double Fourier Series on a Sphere: Applications to Elliptic and Vorticity Equations, **157**, 327–349, 2000.
- H.-B. Cheong, Application of Double Fourier Series to the Shallow-Water Equations on a Sphere, **165**, 261–287, 2000.
- C. Cheong and S. Lee, Grid-Optimized Dispersion-Relation-Preserving Schemes on General Geometries for Computational Aeroacoustics, **174**, 248–276, 2001.
- H.-B. Cheong, I.-H. Kwon, T.-Y. Goo, and M.-J. Lee, High-Order Harmonic Spectral Filter with the Double Fourier Series on a Sphere, **177**, 313–335, 2002.
- A. Chertock and D. Levy, Particle Methods for Dispersive Equations, **171**, 708–730, 2001.
- H.-H. Choe, N. S. Yoon, S. S. Kim, and D.-I. Choi, A New Unconditionally Stable Algorithm for Steady-State Fluid Simulation of High Density Plasma Discharge, **170**, 550–561, 2001.
- H. Choi and J.-G. Liu, The Reconstruction of Upwind Fluxes for Conservation Laws: Its Behavior in Dynamic and Steady State Calculations, **144**, 237–256, 1998.
- D. L. Chopp, A Level-Set Method for Simulating Island Coarsening, **162**, 104–122, 2000.
- A. J. Chorin, A Numerical Method for Solving Incompressible Viscous Flow Problems, **135**, 118–125, 1997.
- A. J. Chorin, R. Kupferman, and D. Levy, Optimal Prediction for Hamiltonian Partial Differential Equations, **162**, 267–297, 2000.
- S. Y. Chou and D. Baganoff, Kinetic Flux-Vector Splitting for the Navier-Stokes Equations, **130**, 217–230, 1997.
- E. Chow and J. J. Monaghan, Ultrarelativistic SPH, **134**, 296–305, 1997.
- J. P. Christiansen, Numerical Simulation of Hydrodynamics by the Method of Point Vortices, **135**, 189–197, 1997.
- P. L. Christiansen, A. V. Savin, and A. V. Zolotaryuk, Soliton Analysis in Complex Molecular Systems: A Zig-Zag Chain, **134**, 108–121, 1997.

- I. Christopher, G. Knorr, M. Shoucri, and P. Bertrand, Solution of the Poisson Equation in an Annulus, **131**, 323–326, 1997.
- P. C. Chu and C. Fan, A Three-Point Combined Compact Difference Scheme, **140**, 370–399, 1998.
- P. C. Chu and C. Fan, A Three-Point Sixth-Order Nonuniform Combined Compact Difference Scheme, **148**, 663–674, 1999.
- K.-W. Chu, Y. Deng, and J. Reinitz, Parallel Simulated Annealing by Mixing of States, **148**, 646–662, 1999.
- G. Chukkapalli, S. R. Karpik, and C. R. Ethier, A Scheme for Generating Unstructured Grids on Spheres with Application to Parallel Computation, **149**, 114–127, 1999.
- G. A. Chumakov and S. G. Chumakov, A Method for the 2-D Quasi-isometric Regular Grid Generation, **143**, 1–28, 1998.
- P. W. Cleary and J. J. Monaghan, Conduction Modelling Using Smoothed Particle Hydrodynamics, **148**, 227–264, 1999.
- S. Clerc, Numerical Simulation of the Homogeneous Equilibrium Model for Two-Phase Flows, **161**, 354–375, 2000.
- H. J. H. Clercx, A Spectral Solver for the Navier–Stokes Equations in the Velocity–Vorticity Formulation for Flows with Two Nonperiodic Directions, **137**, 186–211, 1997.
- K. A. Cliffe, I. G. Graham, R. Scheichl, and L. Stals, Parallel Computation of Flow in Heterogeneous Media Modelled by Mixed Finite Elements, **164**, 258–282, 2000.
- K. A. Cliffe and S. J. Tavener, Marangoni–Bénard Convection with a Deformable Free Surface, **145**, 193–227, 1998.
- J.-P. Cocchi and R. Saurel, A Riemann Problem Based Method for the Resolution of Compressible Multimaterial Flows, **137**, 265–298, 1997.
- B. Cockburn and C.-W. Shu, The Runge–Kutta Discontinuous Galerkin Method for Conservation Laws V. Multi-dimensional Systems, **141**, 199–224, 1998.
- R. Codina, Numerical Solution of the Incompressible Navier–Stokes Equations with Coriolis Forces Based on the Discretization of the Total Time Derivative, **148**, 467–496, 1999.
- R. Codina, Pressure Stability in Fractional Step Finite Element Methods for Incompressible Flows, **170**, 112–140, 2001.
- P. J. Coelho, Bounded Skew High-Order Resolution Schemes for the Discrete Ordinates Method, **175**, 412–437, 2002.
- A. Cohen, N. Dyn, S. M. Kaber, and M. Postel, Multiresolution Schemes on Triangles for Scalar Conservation Laws, **161**, 264–286, 2000.
- P. Colella, M. R. Dorr, and D. D. Wake, A Conservative Finite Difference Method for the Numerical Solution of Plasma Fluid Equations, **149**, 168–193, 1999.
- P. Colella, M. R. Dorr, and D. D. Wake, Numerical Solution of Plasma Fluid Equations Using Locally Refined Grids, **152**, 550–583, 1999.
- P. Colella and K. Pao, A Projection Method for Low Speed Flows, **149**, 245–269, 1999.
- T. F. Coleman, F. Santosa, and A. Verma, Efficient Calculation of Jacobian and Adjoint Vector Products in the Wave Propagation Inverse Problem Using Automatic Differentiation, **157**, 234–255, 2000.
- O. Colin and M. Rudgyard, Development of High-Order Taylor–Galerkin Schemes for LES, **162**, 338–371, 2000.
- F. Collino, Perfectly Matched Absorbing Layers for the Paraxial Equations, **131**, 164–180, 1997.
- T. Colonius and H. Ran, A Super-Grid-Scale Model for Simulating Compressible Flow on Unbounded Domains, **182**, 191–212, 2002.
- A. W. Cook, A Consistent Approach to Large Eddy Simulation Using Adaptive Mesh Refinement, **154**, 117–133, 1999.
- S. J. Cooke and B. Levush, Eigenmode Solution of 2-D and 3-D Electromagnetic Cavities Containing Absorbing Materials Using the Jacobi–Davidson Algorithm, **157**, 350–370, 2000.
- G. S. Constantinescu and S. K. Lele, A Highly Accurate Technique for the Treatment of Flow Equations at the Polar Axis in Cylindrical Coordinates Using Series Expansions, **183**, 165–186, 2002.
- G. G. M. Coppa, F. Peano, and F. Peinetti, Image-Charge Method for Contour Dynamics in Systems with Cylindrical Boundaries, **182**, 392–417, 2002.
- G. Coppola, S. J. Sherwin, and J. Peiró, Nonlinear Particle Tracking for High-Order Elements, **172**, 356–386, 2001.
- F. Coquel, K. El Amine, E. Godlewski, B. Perthame, and P. Rasche, A Numerical Method Using Upwind Schemes for the Resolution of Two-Phase Flows, **136**, 272–288, 1997.
- J. Cortes, A. Debussche, and I. Toumi, A Density Perturbation Method to Study the Eigenstructure of Two-Phase Flow Equation Systems, **147**, 463–484, 1998.
- R. Cortez, A Vortex/Impulse Method for Immersed Boundary Motion in High Reynolds Number Flows, **160**, 385–400, 2000.
- R. Cortez and M. Minion, The Blob Projection Method for Immersed Boundary Problems, **161**, 428–453, 2000.
- R. Cortez and D. A. Varela, The Dynamics of an Elastic Membrane Using the Impulse Method, **138**, 224–247, 1997.
- C. Cosu and T. Loiseleux, On the Convective and Absolute Nature of Instabilities in Finite Difference Numerical Simulations of Open Flows, **144**, 98–108, 1998.
- B. Costa and L. Dettori, Fourier Collocation Splittings for Partial Differential Equations, **142**, 562–580, 1998.
- G.-H. Cottet, P. Koumoutsakos, and M. L. O. Salihi, Vortex Methods with Spatially Varying Cores, **162**, 164–185, 2000.
- G.-H. Cottet, B. Michaux, S. Ossia, and G. VanderLinden, A Comparison of Spectral and Vortex Methods in Three-Dimensional Incompressible Flows, **175**, 702–712, 2002.
- A. V. Coward, Y. Y. Renardy, M. Renardy, and J. R. Richards, Temporal Evolution of Periodic Disturbances in Two-Layer Couette Flow, **132**, 346–361, 1997.
- S. J. Cox and D. C. Dobson, Band Structure Optimization of Two-Dimensional Photonic Crystals in *H*-Polarization, **158**, 214–224, 2000.
- S. M. Cox and P. C. Matthews, Exponential Time Differencing for Stiff Systems, **176**, 430–455, 2002.
- V. Cristini, J. Bławdziewicz, and M. Loewenberg, An Adaptive Mesh Algorithm for Evolving Surfaces:

- Simulations of Drop Breakup and Coalescence, **168**, 445–463, 2001.
- Á. Csik, M. Ricchiuto, and H. Deconinck, A Conservative Formulation of the Multidimensional Upwind Residual Distribution Schemes for General Nonlinear Conservation Laws, **179**, 286–312, 2002.
- B. Cuenot, C. Angelberger, and J.-P. Legier, Convergence Acceleration for Steady Flame Computations, **161**, 718–722, 2000.
- J. Cullen, Photon Transport through Plasmas with Density and Velocity Structure, **173**, 175–186, 2001.
- S. J. Cummins and J. U. Brackbill, An Implicit Particle-in-Cell Method for Granular Materials, **180**, 506–548, 2002.
- S. J. Cummins and M. Rudman, An SPH Projection Method, **152**, 584–607, 1999.
- ## D
- D. Daescu, G. R. Carmichael, and A. Sandu, Adjoint Implementation of Rosenbrock Methods Applied to Variational Data Assimilation Problems, **165**, 496–510, 2000.
- W. Dai and P. R. Woodward, A Second-Order Unsplit Godunov Scheme for Two- and Three-Dimensional Euler Equations, **134**, 261–281, 1997.
- W. Dai and P. R. Woodward, Numerical Simulations for Nonlinear Heat Transfer in a System of Multimaterials, **139**, 58–78, 1998.
- W. Dai and P. R. Woodward, Numerical Simulations for Radiation Hydrodynamics. I. Diffusion Limit, **142**, 182–207, 1998.
- W. Dai and P. R. Woodward, A Simple Finite Difference Scheme for Multidimensional Magnetohydrodynamical Equations, **142**, 331–369, 1998.
- W. W. Dai and P. R. Woodward, Numerical Simulations for Radiation Hydrodynamics. II. Transport Limit, **157**, 199–233, 2000.
- M. P. Dainton, M. H. Goldwater, and N. K. Nichols, Direct Computation of Stochastic Flow in Reservoirs with Uncertain Parameters, **130**, 203–216, 1997.
- P. Daripa, A Computational Study of Rising Plane Taylor Bubbles, **157**, 120–142, 2000.
- D. L. Darmofal, P. Moinier, and M. B. Giles, Eigenmode Analysis of Boundary Conditions for the One-Dimensional Preconditioned Euler Equations, **160**, 369–384, 2000.
- D. L. Darmofal and K. Siu, A Robust Multigrid Algorithm for the Euler Equations with Local Preconditioning and Semi-coarsening, **151**, 728–756, 1999.
- E. Darrigrand, Coupling of Fast Multipole Method and Microlocal Discretization for the 3-D Helmholtz Equation, **181**, 126–154, 2002.
- E. Darve, The Fast Multipole Method: Numerical Implementation, **160**, 195–240, 2000.
- L. F. F. da Silva, J. L. F. Azevedo, and H. Korzenowski, Unstructured Adaptive Grid Flow Simulations of Inert and Reactive Gas Mixtures, **160**, 522–540, 2000.
- S. Datta and D. Sahdev, Fast Algorithms for Triangular Josephson Junction Arrays, **132**, 276–284, 1997.
- P. Dauber-Osguthorpe, D. J. Osguthorpe, P. S. Stern, and J. Moul, Low Frequency Motion in Proteins. Comparison of Normal Mode and Molecular Dynamics of Streptomyces Griseus Protease A, **151**, 169–189, 1999.
- C. Davies and P. W. Carpenter, A Novel Velocity–Vorticity Formulation of the Navier–Stokes Equations with Applications to Boundary Layer Disturbance Evolution, **172**, 119–165, 2001.
- P. J. Davies, D. B. Duncan, and S. A. Funken, Accurate and Efficient Algorithms for Frequency Domain Scattering from a Thin Wire, **168**, 155–183, 2001.
- P. T. Dawkins, S. R. Dunbar, and R. W. Douglass, The Origin and Nature of Spurious Eigenvalues in the Spectral Tau Method, **147**, 441–462, 1998.
- T. W. Dawson, J. D. Moerlose, and M. A. Stuchly, Hybrid Finite-Difference Method for High-Resolution Modelling of Low-Frequency Electric Induction in Humans, **136**, 640–653, 1997.
- J. Deang, Q. Du, and M. D. Gunzburger, Modeling and Computation of Random Thermal Fluctuations and Material Defects in the Ginzburg–Landau Model for Superconductivity, **181**, 45–67, 2002.
- L. Debreu and E. Blayo, On the Schwarz Alternating Method for Oceanic Models on Parallel Computers, **141**, 93–111, 1998.
- A. Dedner, F. Kemm, D. Kröner, C.-D. Munz, T. Schnitzer, and M. Wesenberg, Hyperbolic Divergence Cleaning for the MHD Equations, **175**, 645–673, 2002.
- A. Dedner, D. Kröner, I. L. Sofronov, and M. Wesenberg, Transparent Boundary Conditions for MHD Simulations in Stratified Atmospheres, **171**, 448–478, 2001.
- A. Dedner and P. Vollmöller, An Adaptive Higher Order Method for Solving the Radiation Transport Equation on Unstructured Grids, **178**, 263–289, 2002.
- E. Deeba, S. A. Khuri, and S. Xie, An Algorithm for Solving Boundary Value Problems, **159**, 125–138, 2000.
- P. Degond and A. El Ayadi, A Coupled Schrödinger Drift-Diffusion Model for Quantum Semiconductor Device Simulations, **181**, 222–259, 2002.
- W. Dehnen, A Hierarchical $\mathcal{O}(N)$ Force Calculation Algorithm, **179**, 27–42, 2002.
- A. de La Bourdonnaye, High-Order Scheme for a Nonlinear Maxwell System Modelling Kerr Effect, **160**, 500–521, 2000.
- C. de la F. Marcos, P. Barge, and R. de la F. Marcos, Dust Dynamics in Protoplanetary Disks: Parallel Computing with PVM, **176**, 276–294, 2002.
- P. J. Dellar, A Note on Magnetic Monopoles and the One-Dimensional MHD Riemann Problem, **172**, 392–398, 2001.
- P. J. Dellar, Lattice Kinetic Schemes for Magnetohydrodynamics, **179**, 95–126, 2002.
- A. S. de Markus, Chaotic Algorithms: A Numerical Exploration of the Dynamics of a Stiff Photoconductor Model, **132**, 409–411, 1997.
- J. C. deMello, Highly Convergent Simulations of Transport Dynamics in Organic Light-Emitting Diodes, **181**, 564–576, 2002.
- E. D. Dendy, N. T. Padial-Collins, and W. B. VanderHeyden, A General-Purpose Finite-Volume Advection Scheme

- for Continuous and Discontinuous Fields on Unstructured Grids, **180**, 559–583, 2002.
- X. Deng and H. Maekawa, Compact High-Order Accurate Nonlinear Schemes, **130**, 77–91, 1997.
- Y. Deng, R. F. Peierls, and C. Rivera, An Adaptive Load Balancing Method for Parallel Molecular Dynamics Simulations, **161**, 250–263, 2000.
- X. Deng and H. Zhang, Developing High-Order Weighted Compact Nonlinear Schemes, **165**, 22–44, 2000.
- R. G. Derickson and R. A. Pielke, Sr., A Preliminary Study of the Burgers Equation with Symbolic Computation, **162**, 219–244, 2000.
- H. De Sterck, A. Csík, D. Vanden Abeele, S. Poedts, and H. Deconinck, Stationary Two-Dimensional Magnetohydrodynamic Flows with Shocks: Characteristic Analysis and Grid Convergence Study, **166**, 28–62, 2001.
- J. A. Diez and L. Kondic, Computing Three-Dimensional Thin Film Flows Including Contact Lines, **183**, 274–306, 2002.
- H. A. Dijkstra, H. Oksuzoglu, F. W. Wubs, and E. F. F. Botta, A Fully Implicit Model of the Three-Dimensional Thermohaline Ocean Circulation, **173**, 685–715, 2001.
- A. A. Dimas and L. T. Fialkowski, Large-Wave Simulation (LWS) of Free-Surface Flows Developing Weak Spilling Breaking Waves, **159**, 172–196, 2000.
- C. D. Dimitropoulos and A. N. Beris, An Efficient and Robust Spectral Solver for Nonseparable Elliptic Equations, **133**, 186–191, 1997.
- C. D. Dimitropoulos, B. J. Edwards, K.-S. Chae, and A. N. Beris, Efficient Pseudospectral Flow Simulations in Moderately Complex Geometries, **144**, 517–549, 1998.
- Y. Ding and M. Kawahara, Linear Stability of Incompressible Flow Using a Mixed Finite Element Method, **139**, 243–273, 1998.
- A. Ditkowski, K. Dridi, and J. S. Hesthaven, Convergent Cartesian Grid Methods for Maxwell’s Equations in Complex Geometries, **170**, 39–80, 2001.
- R. Djellouli, C. Farhat, and R. Tezaur, A Fast Method for Solving Acoustic Scattering Problems in Frequency Bands, **168**, 412–432, 2001.
- D. C. Dobson, An Efficient Method for Band Structure Calculations in 2D Photonic Crystals, **149**, 363–376, 1999.
- D. C. Dobson, J. Gopalakrishnan, and J. E. Pasciak, An Efficient Method for Band Structure Calculations in 3D Photonic Crystals, **161**, 668–679, 2000.
- R. C. Dolcetta, N. Pucello, V. Rosato, and F. Saraceni, On the Use of a Heterogeneous MIMD–SIMD Platform to Simulate the Dynamics of Globular Clusters with a Central Massive Object, **174**, 208–225, 2001.
- K. Domelevo and L. Sainsaulieu, A Numerical Method for the Computation of the Dispersion of a Cloud of Particles by a Turbulent Gas Flow Field, **133**, 256–278, 1997.
- G. Domokos, I. Szeberényi, and P. H. Steen, Simultaneously Resolved Bifurcation Diagrams: A Novel Global Approach Applied to Liquid Figures of Equilibrium, **159**, 38–57, 2000.
- R. Donat, J. A. Font, J. M^a Ibáñez, and A. Marquina, A Flux-Split Algorithm Applied to Relativistic Flows, **146**, 58–81, 1998.
- E. Dormy, An Accurate Compact Treatment of Pressure for Colocated Variables, **151**, 676–683, 1999.
- M. R. Dorr, F. X. Garaizar, and J. A. F. Hittinger, Simulation of Laser Plasma Filamentation Using Adaptive Mesh Refinement, **177**, 233–263, 2002.
- D. Drikakis and P. K. Smolarkiewicz, On Spurious Vortical Structures, **172**, 309–325, 2001.
- T. A. Driscoll, A Composite Runge–Kutta Method for the Spectral Solution of Semilinear PDEs, **182**, 357–367, 2002.
- T. A. Driscoll and B. Fornberg, Note on Nonsymmetric Finite Differences for Maxwell’s Equations, **161**, 723–727, 2000.
- D. Drikakis, O. P. Iliev, and D. P. Vassileva, A Nonlinear Multigrid Method for the Three-Dimensional Incompressible Navier–Stokes Equations, **146**, 301–321, 1998.
- D. Drikakis, O. P. Iliev, and D. P. Vassileva, Acceleration of Multigrid Flow Computations through Dynamic Adaptation of the Smoothing Procedure, **165**, 566–591, 2000.
- T. A. Driscoll and B. Fornberg, A Block Pseudospectral Method for Maxwell’s Equations. I. One-Dimensional Case, **140**, 47–65, 1998.
- T. A. Driscoll and B. Fornberg, Note on Nonsymmetric Finite Differences for Maxwell’s Equations, **161**, 723–727, 2000.
- D. G. Dritschel, Introduction to “Contour Dynamics for the Euler Equations in Two Dimensions,” **135**, 217–219, 1997.
- K. Drukker, Basics of Surface Hopping in Mixed Quantum/Classical Simulations, **153**, 225–272, 1999.
- O. A. Druzhinin and S. E. Elghobashi, A Lagrangian–Eulerian Mapping Solver for Direct Numerical Simulation of Bubble-Laden Turbulent Shear Flows Using the Two-Fluid Formulation, **154**, 174–196, 1999.
- B. Dubroca and A. Klar, Half-Moment Closure for Radiative Transfer Equations, **180**, 584–596, 2002.
- F. Ducros, V. Ferrand, F. Nicoud, C. Weber, D. Darraçq, C. Gacherieu, and T. Poinsot, Large-Eddy Simulation of the Shock/Turbulence Interaction, **152**, 517–549, 1999.
- F. Ducros, F. Laporte, T. Soulères, V. Guinot, P. Moinat, and B. Caruelle, High-Order Fluxes for Conservative Skew-Symmetric-like Schemes in Structured Meshes: Application to Compressible Flows, **161**, 114–139, 2000.
- J. K. Dukowicz and J. R. Baumgardner, Incremental Remapping as a Transport/Advection Algorithm, **160**, 318–335, 2000.
- T. H. Duong, E. L. Mehler, and H. Weinstein, Molecular Dynamics Simulation of Membranes and a Transmembrane Helix, **151**, 358–387, 1999.
- A. Dupuis and B. Chopard, Lattice Gas Modeling of Scour Formation under Submarine Pipelines, **178**, 161–174, 2002.
- P. A. Durbin and G. Iaccarino, An Approach to Local Refinement of Structured Grids, **181**, 639–653, 2002.
- D. R. Durran, Wave Propagation in Quadratic-Finite-Element Approximations to Hyperbolic Equations, **159**, 448–455, 2000.
- P. Dyshlovenko, Adaptive Mesh Enrichment for the Poisson–Boltzmann Equation, **172**, 198–208, 2001.

E

- W. E and J.-G. Liu, Finite Difference Methods for 3D Viscous Incompressible Flows in the Vorticity–Vector Potential Formulation on Nonstaggered Grids, **138**, 57–82, 1997.
- W. E and Z. Huang, A Dynamic Atomistic–Continuum Method for the Simulation of Crystalline Materials, **182**, 234–261, 2002.
- W. E and J.-G. Liu, Finite Difference Schemes for Incompressible Flows in the Velocity–Impulse Density Formulation, **130**, 67–76, 1997.
- C. Eck, P. Knabner, and S. Korotov, A Two-Scale Method for the Computation of Solid–Liquid Phase Transitions with Dendritic Microstructure, **178**, 58–80, 2002.
- A. L. Edelman and N. Agmon, Brownian Simulation of Many-Particle Binding to a Reversible Receptor Array, **132**, 260–275, 1997.
- Å. Edlund, I. Vorobeichik, and U. Peskin, High Order Perturbation Theory for Helmholtz–Schrödinger Equations via a Separable Pre-conditioner, **138**, 788–800, 1997.
- M. G. Edwards, M-Matrix Flux Splitting for General Full Tensor Discretization Operators on Structured and Unstructured Grids, **160**, 1–28, 2000.
- G. Efrainsson, A 2D Analysis of the Influence of Artificial Viscosity Terms on Solutions of the Euler Equations, **138**, 103–120, 1997.
- K. Ehrendorfer, F. Ottitsch, and H. Sockel, A Time-Domain Method for the Determination of Unsteady Pressure with a Tube of Constant Cross-Section, **142**, 67–79, 1998.
- J. A. Ekaterinaris, Implicit, High-Resolution, Compact Schemes for Gas Dynamics and Aeroacoustics, **156**, 272–299, 1999.
- J. D. Eldredge, T. Colonius, and A. Leonard, A Vortex Particle Method for Two-Dimensional Compressible Flow, **179**, 371–399, 2002.
- J. D. Eldredge, A. Leonard, and T. Colonius, A General Deterministic Treatment of Derivatives in Particle Methods, **180**, 686–709, 2002.
- M. Elghaoui and R. Pasquetti, Mixed Spectral-Boundary Element Embedding Algorithms for the Navier–Stokes Equations in the Vorticity-Stream Function Formulation, **153**, 82–100, 1999.
- B. Eliasson, Outflow Boundary Conditions for the Fourier Transformed Two-Dimensional Vlasov Equation, **181**, 98–125, 2002.
- F. W. Elliott, Jr., D. J. Hornthrop, and A. J. Majda, **132**, 384–408, 1997.
- H. C. Elman and D. P. O’Leary, Efficient Iterative Solution of the Three-Dimensional Helmholtz Equation, **142**, 163–181, 1998.
- J. Elschnner and G. Schmidt, Numerical Solution of Optimal Design Problems for Binary Gratings, **146**, 603–626, 1998.
- B. Engquist, O. Runborg, and A.-K. Tornberg, High-Frequency Wave Propagation by the Segment Projection Method, **178**, 373–390, 2002.
- D. Enright, R. Fedkiw, J. Ferziger, and I. Mitchell, A Hybrid Particle Level Set Method for Improved Interface Capturing, **183**, 83–116, 2002.
- B. Epstein, A. Averbuch, and I. Yavneh, An Accurate ENO Driven Multigrid Method Applied to 3D Turbulent Transonic Flows, **168**, 316–338, 2001.
- A. A. Ergin, B. Shanker, and E. Michielssen, Fast Evaluation of Three-Dimensional Transient Wave Fields Using Diagonal Translation Operators, **146**, 157–180, 1998.
- D. J. Estep, S. M. V. Lunel, and R. D. Williams, Analysis of Shear Layers in a Fluid with Temperature-Dependent Viscosity, **173**, 17–60, 2001.
- S. Evje and K. K. Fjelde, Hybrid Flux-Splitting Schemes for a Two-Phase Flow Model, **175**, 674–701, 2002.

F

- M. Fabbri and V. R. Voller, The Phase-Field Method in the Sharp-Interface Limit: A Comparison Between Model Potentials, **130**, 256–265, 1997.
- E. A. Fadlun, R. Verzicco, P. Orlandi, and J. Mohd-Yusof, Combined Immersed-Boundary Finite-Difference Methods for Three-Dimensional Complex Flow Simulations, **161**, 35–60, 2000.
- M. Falcone and R. Ferretti, Semi-Lagrangian Schemes for Hamilton–Jacobi Equations, Discrete Representation Formulae and Godunov Methods, **175**, 559–575, 2002.
- J. Falcovitz, G. Alfandary, and G. Hanoach, A Two-Dimensional Conservation Laws Scheme for Compressible Flows with Moving Boundaries, **138**, 83–102, 1997.
- J. Fan and C. Shen, Statistical Simulation of Low-Speed Rarefied Gas Flows, **167**, 393–412, 2001.
- H. Fangohr, A. R. Price, S. J. Cox, P. A. J. de Groot, G. J. Daniell, and K. S. Thomas, Efficient Methods for Handling Long-Range Forces in Particle–Particle Simulations, **162**, 372–384, 2000.
- C. Farhat, P. Geuzaine, and C. Grandmont, The Discrete Geometric Conservation Law and the Nonlinear Stability of ALE Schemes for the Solution of Flow Problems on Moving Grids, **174**, 669–694, 2001.
- G. Farin and B. Hamann, Current Trends in Geometric Modeling and Selected Computational Applications, **138**, 1–15, 1997.
- J.-L. Fattebert, Finite Difference Schemes and Block Rayleigh Quotient Iteration for Electronic Structure Calculations on Composite Grids, **149**, 75–94, 1999.
- I. Fedioun, N. Lardjane, and I. Gökalp, Revisiting Numerical Errors in Direct and Large Eddy Simulations of Turbulence: Physical and Spectral Spaces Analysis, **174**, 816–851, 2001.
- R. P. Fedkiw, Coupling an Eulerian Fluid Calculation to a Lagrangian Solid Calculation with the Ghost Fluid Method, **175**, 200–224, 2002.
- R. P. Fedkiw, T. Aslam, B. Merriman, and S. Osher, A Non-oscillatory Eulerian Approach to Interfaces in Multimaterial Flows (the Ghost Fluid Method), **152**, 457–492, 1999.
- R. P. Fedkiw, T. Aslam, and S. Xu, The Ghost Fluid Method for Deflagration and Detonation Discontinuities, **154**, 393–427, 1999.
- R. P. Fedkiw, A. Marquina, and B. Merriman, An Isobaric Fix for the Overheating Problem in Multimaterial Compressible Flows, **148**, 545–578, 1999.

- R. P. Fedkiw, B. Merriman, and S. Osher, High Accuracy Numerical Methods for Thermally Perfect Gas Flows with Chemistry, **132**, 175–190, 1997.
- R. P. Fedkiw, B. Merriman, and S. Osher, Efficient Characteristic Projection in Upwind Difference Schemes for Hyperbolic Systems. The Complementary Projection Method, **141**, 22–36, 1998.
- R. P. Fedkiw, B. Merriman, and S. Osher, Simplified Discretization of Systems of Hyperbolic Conservation Laws Containing Advection Equations, **157**, 302–326, 2000.
- A. I. Fedoseyev and J. I. D. Alexander, An Inverse Finite Element Method for Pure and Binary Solidification Problems, **130**, 243–255, 1997.
- J. Q. Feng, Application of Galerkin Finite-Element Method with Newton Iterations in Computing Steady-State Solutions of Unipolar Charge Currents in Corona Devices, **151**, 969–989, 1999.
- B.-F. Feng, T. Kawahara, and T. Mitsui, A Conservative Spectral Method for Several Two-Dimensional Nonlinear Wave Equations, **153**, 467–487, 1999.
- M. Fey, Multidimensional Upwinding. Part I. The Method of Transport for Solving the Euler Equations, **143**, 159–180, 1998.
- M. Fey, Multidimensional Upwinding. Part II. Decomposition of the Euler Equations into Advection Equations, **143**, 181–199, 1998.
- G. Fibich and S. Tsynkov, High-Order Two-Way Artificial Boundary Conditions for Nonlinear Wave Propagation with Backscattering, **171**, 632–677, 2001.
- B. Fidel, E. Heyman, R. Kastner, and R. W. Ziolkowski, Hybrid Ray-FDTD Moving Window Approach to Pulse Propagation, **138**, 480–500, 1997.
- A. Figotin and Y. A. Godin, The Computation of Spectra of some 2D Photonic Crystals, **136**, 585–598, 1997.
- A. Figotin and I. Khalfin, Bound States of a One-Band Model for 3D Periodic Medium, **138**, 153–170, 1997.
- H. Figua, F. Bouchut, M. R. Feix, and E. Fijalkow, Instability of the Filtering Method for Vlasov's Equation, **159**, 440–447, 2000.
- F. Filbet and L. Pareschi, A Numerical Method for the Accurate Solution of the Fokker-Planck-Landau Equation in the Nonhomogeneous Case, **179**, 1–26, 2002.
- F. Filbet, E. Sonnendrücker, and P. Bertrand, Conservative Numerical Schemes for the Vlasov Equation, **172**, 166–187, 2001.
- O. Filippova and D. Hänel, Grid Refinement for Lattice-BGK Models, **147**, 219–228, 1998.
- O. Filippova and D. Hänel, A Novel Lattice BGK Approach for Low Mach Number Combustion, **158**, 139–160, 2000.
- O. Filippova and D. Hänel, Acceleration of Lattice-BGK Schemes with Grid Refinement, **165**, 407–427, 2000.
- O. Filippova, S. Succi, F. Mazzocco, C. Arrighetti, G. Bella, and D. Hänel, Multiscale Lattice Boltzmann Schemes with Turbulence Modeling, **170**, 812–829, 2001.
- D. Finocchiaro, M. Pellegrini, and P. Bientinesi, On Numerical Approximation of Electrostatic Energy in 3D, **146**, 707–725, 1998.
- P. F. Fischer, An Overlapping Schwarz Method for Spectral Element Solution of the Incompressible Navier-Stokes Equations, **133**, 84–101, 1997.
- L. M. Frohn, J. H. Christensen, and J. Brandt, Development of a High-Resolution Nested Air Pollution Model. The Numerical Approach, **179**, 68–94, 2002.
- R. Florea and K. C. Hall, Eigenmode Analysis of Unsteady Flows about Airfoils, **147**, 568–593, 1998.
- B. Fornberg and T. A. Driscoll, A Fast Spectral Algorithm for Nonlinear Wave Equations with Linear Dispersion, **155**, 456–467, 1999.
- H. Forrer and R. Jeltsch, A Higher-Order Boundary Treatment for Cartesian-Grid Methods, **140**, 259–277, 1998.
- R. C. Forrey, Computing the Hypergeometric Function, **137**, 79–100, 1997.
- J. Frank, W. Huang, and B. Leimkuhler, Geometric Integrators for Classical Spin Systems, **133**, 160–172, 1997.
- J. Frank and S. Reich, A Particle-Mesh Method for the Shallow Water Equations Near Geostrophic Balance, **180**, 407–426, 2002.
- A. Franz and K. H. Hoffmann, Optimal Annealing Schedules for a Modified Tsallis Statistics, **176**, 196–204, 2002.
- J. B. Freund, A Simple Method for Computing Far-Field Sound in Aeroacoustic Computations, **157**, 796–800, 2000.
- H. Friedel, R. Grauer, and C. Marliani, Adaptive Mesh Refinement for Singular Current Sheets in Incompressible Magnetohydrodynamic Flows, **134**, 190–198, 1997.
- O. Friedrich, Weighted Essentially Non-oscillatory Schemes for the Interpolation of Mean Values on Unstructured Grids, **144**, 194–212, 1998.
- T. Frieze, F. Schmidt, and D. Yevick, Transparent Boundary Conditions for a Wide-Angle Approximation of the One-Way Helmholtz Equation, **165**, 645–659, 2000.
- L. J. D. Frink and A. G. Salinger, Two- and Three-Dimensional Nonlocal Density Functional Theory for Inhomogeneous Fluids. I. Algorithms and Parallelization, **159**, 407–424, 2000.
- L. J. D. Frink and A. G. Salinger, Two- and Three-Dimensional Nonlocal Density Functional Theory for Inhomogeneous Fluids. II. Solvated Polymers as a Benchmark Problem, **159**, 425–439, 2000.
- J. Fröhlich and K. Schneider, An Adaptive Wavelet-Vaguelette Algorithm for the Solution of PDEs, **130**, 174–190, 1997.
- C. Frontera, J. Goicoechea, J. Ortín, and E. Vives, Efficient Algorithm for Finding Ground-States in the Random Field Ising Model with an External Field, **160**, 117–125, 2000.
- C. Frontera and E. Vives, An Algorithm for Finding the First Excited State in the Random-Field Ising Model, **168**, 219–226, 2001.
- D. Fu and Y. Ma, A High Order Accurate Difference Scheme for Complex Flow Fields, **134**, 1–15, 1997.
- K. Fukagata and N. Kasagi, Highly Energy-Conservative Finite Difference Method for the Cylindrical Coordinate System, **181**, 478–498, 2002.
- C. Fureby and F. F. Grinstein, Large Eddy Simulation of High-Reynolds-Number Free and Wall-Bounded Flows, **181**, 68–97, 2002.

- D. Furihata, Finite Difference Schemes for $\frac{\partial u}{\partial t} = \left(\frac{\partial}{\partial x}\right)^\alpha \frac{\partial G}{\partial u}$ That Inherit Energy Conservation or Dissipation Property, **156**, 181–205, 1999.
- R. A. Fusina, A. L. Cooper, and S. R. Chubb, High Resolution Computations of Ocean Wave Spectral Modulations due to Two-Dimensional Wave-Current Interactions, **132**, 215–225, 1997.
- ## G
- F. Gagel, Finite-Temperature Evaluation of the Fermi Density Operator, **139**, 399–405, 1998.
- D. Gaitonde and J. S. Shang, Optimized Compact-Difference-Based Finite-Volume Schemes for Linear Wave Phenomena, **138**, 617–643, 1997.
- G. Gambolati and G. Pini, Complex Solution to Nonideal Contaminant Transport through Porous Media, **145**, 538–554, 1998.
- F. X. Garaizar and J. Trangenstein, Front Tracking for Shear Bands in an Antiplane Shear Model, **131**, 54–69, 1997.
- A. Garba, A Mixed Spectral/Wavelet Method for the Solution of the Stokes Problem, **145**, 297–315, 1998.
- M. Garbey and D. Tromeur-Dervout, A New Parallel Solver for the Nonperiodic Incompressible Navier-Stokes Equations with a Fourier Method: Application to Frontal Polymerization, **145**, 316–331, 1998.
- M. Garbey and D. Tromeur-Dervout, A Parallel Adaptive Coupling Algorithm for Systems of Differential Equations, **161**, 401–427, 2000.
- M. Garbey and D. Tromeur-Dervout, Parallel Algorithms with Local Fourier Basis, **173**, 575–599, 2001.
- A. L. Garcia and B. J. Alder, Generation of the Chapman-Enskog Distribution, **140**, 66–70, 1998.
- A. L. Garcia, J. B. Bell, W. Y. Crutchfield, and B. J. Alder, Adaptive Mesh and Algorithm Refinement Using Direct Simulation Monte Carlo, **154**, 134–155, 1999.
- J. Garcke and M. Griebel, On the Computation of the Eigenproblems of Hydrogen and Helium in Strong Magnetic and Electric Fields with the Sparse Grid Combination Technique, **165**, 694–716, 2000.
- K. Garikipati and V. S. Rao, Recent Advances in Models for Thermal Oxidation of Silicon, **174**, 138–170, 2001.
- E. Garnier, M. Mossi, P. Sagaut, P. Comte, and M. Deville, On the Use of Shock-Capturing Schemes for Large-Eddy Simulation, **153**, 273–311, 1999.
- E. Garnier, P. Sagaut, and M. Deville, A Class of Explicit ENO Filters with Application to Unsteady Flows, **170**, 184–204, 2001.
- L. Gascón and J. M. Corberán, Construction of Second-Order TVD Schemes for Nonhomogeneous Hyperbolic Conservation Laws, **172**, 261–297, 2001.
- S. Gavriluk and R. Saurel, Mathematical and Numerical Modeling of Two-Phase Compressible Flows with Micro-Inertia, **175**, 326–360, 2002.
- L. Ge and J. Zhang, High Accuracy Iterative Solution of Convection Diffusion Equation with Boundary Layers on Nonuniform Grids, **171**, 560–578, 2001.
- A. Gelb, D. Gottlieb, and N. Paldor, Wind Setdown Relaxation on a Sloping Beach, **138**, 644–664, 1997.
- F. Gelbard and K. J. Malloy, Modeling Quantum Structures with the Boundary Element Method, **172**, 19–39, 2001.
- A. Yu. Gelfgat, Different Modes of Rayleigh-Bénard Instability in Two- and Three-Dimensional Rectangular Enclosures, **156**, 300–324, 1999.
- N. A. Gentile, Implicit Monte Carlo Diffusion—An Acceleration Method for Monte Carlo Time-Dependent Radiative Transfer Simulations, **172**, 543–571, 2001.
- W. L. George and J. A. Warren, A Parallel 3D Dendritic Growth Simulator Using the Phase-Field Method, **177**, 264–283, 2002.
- G. E. Georghiou, R. Morrow, and A. C. Metaxas, An Improved Finite-Element Flux-Corrected Transport Algorithm, **148**, 605–620, 1999.
- P. Gerlinger, H. Möbus, and D. Brüggemann, An Implicit Multigrid Method for Turbulent Combustion, **167**, 247–276, 2001.
- P. Gerlinger, P. Stoll, and D. Brüggemann, An Implicit Multigrid Method for the Simulation of Chemically Reacting Flows, **146**, 322–345, 1998.
- M. Gerritsen and P. Olsson, Designing an Efficient Solution Strategy for Fluid Flows. II. Stable High-Order Central Finite Difference Schemes on Composite Adaptive Grids with Sharp Shock Resolution, **147**, 293–317, 1998.
- M. I. Gerritsma and T. N. Phillips, Spectral Element Methods for Axisymmetric Stokes Problems, **164**, 81–103, 2000.
- S. N. Ghadiali, D. Halpern, and D. P. Gaver III, A Dual-Reciprocity Boundary Element Method for Evaluating Bulk Convective Transport of Surfactant in Free-Surface Flows, **171**, 534–559, 2001.
- A. Gharakhani and A. F. Ghoniem, Three-Dimensional Vortex Simulation of Time Dependent Incompressible Internal Viscous Flows, **134**, 75–95, 1997.
- O. Ghattas and J.-H. Bark, Optimal Control of Two- and Three-Dimensional Incompressible Navier-Stokes Flows, **136**, 231–244, 1997.
- M. R. Gibbons and D. W. Hewett, Characterization of the Darwin Direct Implicit Particle-in-Cell Method and Resulting Guidelines for Operation, **130**, 54–66, 1997.
- F. Gibou, R. P. Fedkiw, L.-T. Cheng, and M. Kang, A Second-Order-Accurate Symmetric Discretization of the Poisson Equation on Irregular Domains, **176**, 205–227, 2002.
- G. Giese and M. Fey, A Genuinely Multidimensional High-Resolution Scheme for the Elastic-Plastic Wave Equation, **181**, 338–353, 2002.
- A. Gil, J. Segura, and N. M. Temme, Evaluation of the Modified Bessel Function of the Third Kind of Imaginary Orders, **175**, 398–411, 2002.
- E. Giladi and J. B. Keller, A Hybrid Numerical Asymptotic Method for Scattering Problems, **174**, 226–247, 2001.
- M. B. Giles, Stability Analysis of a Galerkin/Runge-Kutta Navier-Stokes Discretisation on Unstructured Tetrahedral Grids, **132**, 201–214, 1997.
- A. Gil, J. Segura, and N. M. Temme, Computing Toroidal Functions for Wide Ranges of the Parameters, **161**, 204–217, 2000.
- L. Gilles, S. C. Hagness, and L. Vázquez, Comparison between Staggered and Unstaggered Finite-Difference Time-Domain Grids for Few-Cycle Temporal Optical Soliton Propagation, **161**, 379–400, 2000.

- I. Ginzburg and G. Wittum, Two-Phase Flows on Interface Refined Grids Modeled with VOF, Staggered Finite Volumes, and Spline Interpolants, **166**, 302–335, 2001.
- M. Giona and S. Cerbelli, C^∞ -Interpolation of Discrete Fields on Regular and Irregular Grids, **176**, 145–169, 2002.
- F. X. Giraldo, Lagrange–Galerkin Methods on Spherical Geodesic Grids, **136**, 197–213, 1997.
- F. X. Giraldo, The Lagrange–Galerkin Spectral Element Method on Unstructured Quadrilateral Grids, **147**, 114–146, 1998.
- F. X. Giraldo, Lagrange–Galerkin Methods on Spherical Geodesic Grids: The Shallow Water Equations, **160**, 336–368, 2000.
- F. X. Giraldo, J. S. Hesthaven, and T. Warburton, Nodal High-Order Discontinuous Galerkin Methods for the Spherical Shallow Water Equations, **181**, 499–525, 2002.
- D. Givoli, High-Order Nonreflecting Boundary Conditions without High-Order Derivatives, **170**, 849–870, 2001.
- D. Givoli and I. Patlashenko, Finite-Element Solution of Nonlinear Time-Dependent Exterior Wave Problems, **143**, 241–258, 1998.
- K. Glasner, Nonlinear Preconditioning for Diffuse Interfaces, **174**, 695–711, 2001.
- J. Glimm, J. W. Grove, X. L. Li, W. Oh, and D. H. Sharp, A Critical Analysis of Rayleigh–Taylor Growth Rates, **169**, 652–677, 2001.
- R. Glowinski, T. W. Pan, T. I. Hesla, D. D. Joseph, and J. Périaux, A Fictitious Domain Approach to the Direct Numerical Simulation of Incompressible Viscous Flow past Moving Rigid Bodies: Application to Particulate Flow, **169**, 363–426, 2001.
- S. K. Godunov, Reminiscences about Difference Schemes, **153**, 6–25, 1999.
- J. P. Goedbloed, Expansion Functions for Two-Dimensional Incompressible Fluid Flow in Arbitrary Domains, **160**, 283–297, 2000.
- T. I. Gombosi, G. Tóth, D. L. De Zeeuw, K. C. Hansen, K. Kabin, and K. G. Powell, Semirelativistic Magnetohydrodynamics and Physics-Based Convergence Acceleration, **177**, 176–205, 2002.
- K. A. Gonthier and J. M. Powers, A High-Resolution Numerical Method for a Two-Phase Model of Deflagration-to-Detonation Transition, **163**, 376–433, 2000.
- R. A. Gonzales, J. Eisert, I. Koltracht, M. Neumann, and G. Rawitscher, Integral Equation Method for the Continuous Spectrum Radial Schrödinger Equation, **134**, 134–149, 1997.
- M. Goodson and M. Kraft, An Efficient Stochastic Algorithm for Simulating Nano-particle Dynamics, **183**, 210–232, 2002.
- R. A. Gonzales, S.-Y. Kang, I. Koltracht, and G. Rawitscher, Integral Equation Method for Coupled Schrödinger Equations, **153**, 160–202, 1999.
- P. Goswami, S. N. Bhattacharyya, and A. Sen, Spectrum of Electrostatic Modes in a Cylindrical Non-neutral Plasma of Arbitrary Density, **159**, 312–328, 2000.
- L. Gosse, Using K -Branch Entropy Solutions for Multivalued Geometric Optics Computations, **180**, 155–182, 2002.
- J. Göttelmann, A Spline Collocation Scheme for the Spherical Shallow Water Equations, **148**, 291–298, 1999.
- D. Gottlieb, E. Turkel, and S. Abarbanel, Analysis of the Error for Approximations to Systems of Hyperbolic Equations, **151**, 997–1007, 1999.
- G. Gozadinos, D. Vender, and M. M. Turner, Boundary Conditions and Particle Loading for the Modeling of a Semi-infinite Plasma, **172**, 348–355, 2001.
- P. Grandclément, S. Bonazzola, E.ourgoulhon, and J.-A. Marck, A Multidomain Spectral Method for Scalar and Vectorial Poisson Equations with Noncompact Sources, **170**, 231–260, 2001.
- J. Grandy, Conservative Remapping and Region Overlays by Intersecting Arbitrary Polyhedra, **148**, 433–466, 1999.
- A. Greenbaum and A. Mayo, Rapid Parallel Evaluation of Integrals in Potential Theory on General Three-Dimensional Regions, **145**, 731–742, 1998.
- L. F. Greengard and J. Huang, A New Version of the Fast Multipole Method for Screened Coulomb Interactions in Three Dimensions, **180**, 642–658, 2002.
- L. Greengard and V. Rokhlin, A Fast Algorithm for Particle Simulations, **135**, 280–292, 1997.
- J. C. Greer, Monte Carlo Configuration Interaction, **146**, 181–202, 1998.
- P. A. Gremaud and J. V. Matthews, On the Computation of Steady Hopper Flows. I. Stress Determination for Coulomb Materials, **166**, 63–83, 2001.
- J. Gressier, P. Villedieu, and J.-M. Moschetta, Positivity of Flux Vector Splitting Schemes, **155**, 199–220, 1999.
- R. Greve and R. Calov, Comparison of Numerical Schemes for the Solution of the Ice-Thickness Equation in a Dynamic/Thermodynamic Ice-Sheet Model, **179**, 649–664, 2002.
- M. J. Grote, Nonreflecting Boundary Conditions for Elastodynamic Scattering, **161**, 331–353, 2000.
- M. J. Grote and J. B. Keller, Nonreflecting Boundary Conditions for Maxwell’s Equations, **139**, 327–342, 1998.
- Y. A. Gryazin, M. V. Kliibanov, and T. R. Lucas, GMRES Computation of High Frequency Electrical Field Propagation in Land Mine Detection, **158**, 98–115, 2000.
- Y. Guangwu, A Lattice Boltzmann Equation for Waves, **161**, 61–69, 2000.
- A. Guardone and L. Vigevano, Roe Linearization for the van der Waals Gas, **175**, 50–78, 2002.
- J.-L. Guermond and L. Quartapelle, Calculation of Incompressible Viscous Flows by an Unconditionally Stable Projection FEM, **132**, 12–33, 1997.
- J.-L. Guermond and L. Quartapelle, A Projection FEM for Variable Density Incompressible Flows, **165**, 167–188, 2000.
- D. Gueyffier, J. Li, A. Nadin, R. Scardovelli, and S. Zaleski, Volume-of-Fluid Interface Tracking with Smoothed Surface Stress Methods for Three-Dimensional Flows, **152**, 423–456, 1999.
- V. Guinot, The Time-Line Interpolation Method for Large-Time-Step Godunov-Type Schemes, **177**, 394–417, 2002.
- J. R. Gullingsrud, R. Braun, and K. Schulten, Reconstructing Potentials of Mean Force through Time Series Analysis of Steered Molecular Dynamics Simulations, **151**, 190–211, 1999.

- Z. Guo, B. Shi, and N. Wang, Lattice BGK Model for Incompressible Navier–Stokes Equation, **165**, 288–306, 2000.
- M. M. Gupta, J. Kouatchou, and J. Zhang, A Compact Multi-grid Solver for Convection-Diffusion Equations, **132**, 123–129, 1997.
- M. M. Gupta, J. Kouatchou, and J. Zhang, Comparison of Second- and Fourth-Order Discretizations for Multi-grid Poisson Solvers, **132**, 226–232, 1997.
- I. I. Guseinov and B. A. Mamedov, Convergence of Translation Formulas for the Computation of Multicenter Integrals over Slater Orbitals, **174**, 428–437, 2001.
- R. Gutfraind and S. B. Savage, Smoothed Particle Hydrodynamics for the Simulation of Broken Ice Fields: Mohr–Coulomb-Type Rheology and Frictional Boundary Conditions, **134**, 203–215, 1997.
- S. Gutman, Identification of Multilayered Particles from Scattering Data by a Clustering Method, **163**, 529–546, 2000.
- ## H
- E. Haber, U. M. Ascher, D. A. Aruliah, and D. W. Oldenburg, Fast Simulation of 3D Electromagnetic Problems Using Potentials, **163**, 150–171, 2000.
- S. Hacquin, S. Heurax, M. Colin, and G. Leclert, Fast Computations of Wave Propagation in an Inhomogeneous Plasma by a Pulse Compression Method, **174**, 1–11, 2001.
- N. G. Hadjiconstantinou, Hybrid Atomistic–Continuum Formulations and the Moving Contact-Line Problem, **154**, 245–265, 1999.
- G. J. M. Hagelaar and G. M. W. Kroesen, Speeding Up Fluid Models for Gas Discharges by Implicit Treatment of the Electron Energy Source Term, **159**, 1–12, 2000.
- W. W. Hager, A Discrete Model for the Lightning Discharge, **144**, 137–150, 1998.
- S. Hahn and H. Choi, Unsteady Simulation of Jets in a Cross Flow, **134**, 342–356, 1997.
- R. Hallberg, Stable Split Time Stepping Schemes for Large-Scale Ocean Modeling, **135**, 54–65, 1997.
- F. E. Ham, F. S. Lien, and A. B. Strong, A Fully Conservative Second-Order Finite Difference Scheme for Incompressible Flow on Nonuniform Grids, **177**, 117–133, 2002.
- F. E. Ham, F. S. Lien, and A. B. Strong, A Cartesian Grid Method with Transient Anisotropic Adaptation, **179**, 469–494, 2002.
- M. S. Hamed and J. M. Floryan, Numerical Simulation of Unsteady Nonisothermal Capillary Interfaces, **145**, 110–140, 1998.
- E. P. Hammond, K. Mahesh, and P. Moin, A Numerical Method to Simulate Radio-Frequency Plasma Discharges, **176**, 402–429, 2002.
- D. K. Han and A. Prosperetti, A Shape Decomposition Technique in the Impedance Tomography, **155**, 75–95, 1999.
- R. K. S. Hankin, The Euler Equations for Multiphase Compressible Flow in Conservation Form. Simulation of Shock–Bubble Interactions, **172**, 808–826, 2001.
- P. Hansbo, A Crank–Nicolson Type Space–Time Finite Element Method for Computing on Moving Meshes, **159**, 274–289, 2000.
- I. Harari, L. P. Franca, and S. P. Oliveira, Streamline Design of Stability Parameters for Advection–Diffusion Problems, **171**, 115–131, 2001.
- I. Harari, I. Patlashenko, and D. Givoli, Dirichlet-to-Neumann Maps for Unbounded Wave Guides, **143**, 200–223, 1998.
- S. I. Hariharan, J. R. Scott, and K. L. Kreider, A Potential-Theoretic Method for Far-Field Sound Radiation Calculations, **164**, 143–164, 2000.
- A. Harten, B. Engquist, S. Osher, and S. R. Chakravarthy, Uniformly High Order Accurate Essentially Non-oscillatory Schemes, III, **131**, 3–47, 1997.
- R. Hartmann and P. Houston, Adaptive Discontinuous Galerkin Finite Element Methods for the Compressible Euler Equations, **183**, 508–532, 2002.
- A. Harten, High Resolution Schemes for Hyperbolic Conservation Laws, **135**, 260–278, 1997.
- D. J. E. Harvie and D. F. Fletcher, A New Volume of Fluid Advection Algorithm: The Stream Scheme, **162**, 1–32, 2000.
- H. Haschke and W. Heinrichs, Splitting Techniques with Staggered Grids for the Navier–Stokes Equations in the 2D Case, **168**, 131–154, 2001.
- X. He and G. Doolen, Lattice Boltzmann Method on Curvilinear Coordinates System: Flow Around a Circular Cylinder, **134**, 306–315, 1997.
- X. He, G. D. Doolen, and T. Clark, Comparison of the Lattice Boltzmann Method and the Artificial Compressibility Method for Navier–Stokes Equations, **179**, 439–451, 2002.
- X. He, S. Chen, and G. D. Doolen, A Novel Thermal Model for the Lattice Boltzmann Method in Incompressible Limit, **146**, 282–300, 1998.
- X. He, S. Chen, and R. Zhang, A Lattice Boltzmann Scheme for Incompressible Multiphase Flow and Its Application in Simulation of Rayleigh–Taylor Instability, **152**, 642–663, 1999.
- J.-W. He, R. Glowinski, R. Metcalfe, A. Nordlander, and J. Periaux, Active Control and Drag Optimization for Flow Past a Circular Cylinder. I. Oscillatory Cylinder Rotation, **163**, 83–117, 2000.
- M. W. Heemels, M. H. J. Hagen, and C. P. Lowe, Simulating Solid Colloidal Particles Using the Lattice-Boltzmann Method, **164**, 48–61, 2000.
- C. Heerlein and G. Zwicknagel, Nonlinear Landau Damping in Spherically Symmetric Vlasov Poisson Systems, **180**, 497–505, 2002.
- J. A. Heikinen, T. P. Kiviniemi, T. Kurki-Suonio, A. G. Peeters, and S. K. Sipilä, Particle Simulation of the Neoclassical Plasmas, **173**, 527–548, 2001.
- E. Heikkola, Y. A. Kuznetsov, P. Neittaanmäki, and J. Toivanen, Fictitious Domain Methods for the Numerical Solution of Two-Dimensional Scattering Problems, **145**, 89–109, 1998.
- W. Heinrichs, Spectral Collocation on Triangular Elements, **145**, 743–757, 1998.
- W. Heinrichs and B. I. Loch, Spectral Schemes on Triangular Elements, **173**, 279–301, 2001.

- B. T. Helenbrook, L. Martinelli, and C. K. Law, A Numerical Method for Solving Incompressible Flow Problems with a Surface of Discontinuity, **148**, 366–396, 1999.
- J. Helsing and A. Jonsson, Stress Calculations on Multiply Connected Domains, **176**, 456–482, 2002.
- M. Hénon and J.-M. Petit, Good Rotations, **146**, 420–435, 1998.
- M. O. Henriksen and J. Holmen, Algebraic Splitting for Incompressible Navier–Stokes Equations, **175**, 438–453, 2002.
- F. Hermeline, A Finite Volume Method for the Approximation of Diffusion Operators on Distorted Meshes, **160**, 481–499, 2000.
- J. S. Hesthaven, On the Analysis and Construction of Perfectly Matched Layers for the Linearized Euler Equations, **142**, 129–147, 1998.
- J. S. Hesthaven, P. G. Dinesen, and J. P. Lynov, Spectral Collocation Time-Domain Modeling of Diffractive Optical Elements, **155**, 287–306, 1999.
- J. S. Hesthaven and L. M. Jameson, A Wavelet Optimized Adaptive Multi-domain Method, **145**, 280–296, 1998.
- J. S. Hesthaven and T. Warburton, Nodal High-Order Methods on Unstructured Grids. I. Time-Domain Solution of Maxwell’s Equations, **181**, 186–221, 2002.
- D. W. Hewett, The Embedded Curved Boundary Method for Orthogonal Simulation Meshes, **138**, 585–616, 1997.
- R. L. Higdon, Implementation of a Barotropic–Baroclinic Time Splitting for Isopycnic Coordinate Ocean Modeling, **148**, 579–604, 1999.
- R. L. Higdon, A Two-Level Time-Stepping Method for Layered Ocean Circulation Models, **177**, 59–94, 2002.
- R. L. Higdon and R. A. de Szoeke, Barotropic–Baroclinic Time Splitting for Ocean Circulation Modeling, **135**, 30–53, 1997.
- C. V. Hile and G. A. Kriegsmann, A Hybrid Numerical Method for Loaded Highly Resonant Single Mode Cavities, **142**, 506–520, 1998.
- P. Hillion, Beware of Maxwell’s Divergence Equations, **132**, 154–155, 1997.
- A. C. Hindmarsh and M. D. Rotter, Using an ODE Solver for a Class of Integro-differential Systems, **168**, 267–285, 2001.
- Ch. Hirsch, Introduction to “Towards the Ultimate Conservative Difference Scheme. V. A Second-Order Sequel to Godunov’s Method,” **135**, 227–228, 1997.
- C. W. Hirt, A. A. Amsden, and J. L. Cook, An Arbitrary Lagrangian–Eulerian Computing Method for all Flow Speeds, **135**, 203–216, 1997.
- R. Hixon, Prefactored Small-Stencil Compact Schemes, **165**, 522–541, 2000.
- R. Hixon and E. Turkel, Compact Implicit MacCormack-Type Schemes with High Accuracy, **158**, 51–70, 2000.
- B. R. Hodges and R. L. Street, On Simulation of Turbulent Nonlinear Free-Surface Flows, **151**, 425–457, 1999.
- I. J. Hodgkinson, S. Kassam, and Q. H. Wu, Eigenequations and Compact Algorithms for Bulk and Layered Anisotropic Optical Media: Reflection and Refraction at a Crystal–Crystal Interface, **133**, 75–83, 1997.
- G. G. Hoffman, An integral for Second-Order Multiple Scattering Perturbation Theory, **130**, 129–135, 1997.
- L. M. Hofmann and T. Herbert, Reproducing the Flow Response to Actuator Motion, **142**, 264–268, 1998.
- H. Holden, K. H. Karlsen, and N. H. Risebro, Operator Splitting Methods for Generalized Korteweg–De Vries Equations, **153**, 203–222, 1999.
- T.-K. Hong and B. L. N. Kennett, On a Wavelet-Based Method for the Numerical Simulation of Wave Propagation, **183**, 577–622, 2002.
- H. Holden, K.-A. Lie, and N. H. Risebro, An Unconditionally Stable Method for the Euler Equations, **150**, 76–96, 1999.
- K. Horiuti and T. Itami, Truncation Error Analysis of the Rotational Form for the Convective Terms in the Navier–Stokes Equation, **145**, 671–692, 1998.
- M. S. Horritt, Stochastic Modelling of 1-D Shallow Water Flows over Uncertain Topography, **180**, 327–338, 2002.
- R. B. Horne and M. P. Freeman, A New Code for Electrostatic Simulation by Numerical Integration of the Vlasov and Ampère Equations Using MacCormack’s Method, **171**, 182–200, 2001.
- D. J. Horntrop, M. A. Katsoulakis, and D. G. Vlachos, Spectral Methods for Mesoscopic Models of Pattern Formation, **173**, 364–390, 2001.
- R. D. Hornung and J. A. Trangenstein, Adaptive Mesh Refinement and Multilevel Iteration for Flow in Porous Media, **136**, 522–545, 1997.
- T. Y. Hou, I. Klapper, and H. Si, Removing the Stiffness of Curvature in Computing 3-D Filaments, **143**, 628–664, 1998.
- T. Y. Hou, Z. Li, S. Osher, and H. Zhao, A Hybrid Method for Moving Interface Problems with Application to the Hele–Shaw Flow, **134**, 236–252, 1997.
- T. Y. Hou, J. S. Lowengrub, and M. J. Shelley, Boundary Integral Methods for Multicomponent Fluids and Multiphase Materials, **169**, 302–362, 2001.
- T. Y. Hou, P. Rosakis, and P. LeFloch, A Level-Set Approach to the Computation of Twinning and Phase-Transition Dynamics, **150**, 302–331, 1999.
- S. Hou, X. Shan, Q. Zou, G. D. Doolen, and W. E. Soll, Evaluation of Two Lattice Boltzmann Models for Multiphase Flows, **138**, 695–713, 1997.
- T. Y. Hou and X.-H. Wu, A Multiscale Finite Element Method for Elliptic Problems in Composite Materials and Porous Media, **134**, 169–189, 1997.
- B. P. Howell and G. J. Ball, A Free-Lagrange Augmented Godunov Method for the Simulation of Elastic–Plastic Solids, **175**, 128–167, 2002.
- C.-T. Hsiao, G. Chahine, and N. Gumerov, Application of a Hybrid Genetic/Powell Algorithm and a Boundary Element Method to Electrical Impedance Tomography, **173**, 433–454, 2001.
- F. Q. Hu, A Stable Perfectly Matched Layer for Linearized Euler Equations in Unsplit Physical Variables, **173**, 455–480, 2001.
- F. Q. Hu and H. L. Atkins, Eigensolution Analysis of the Discontinuous Galerkin Method with Nonuniform Grids. I. One Space Dimension, **182**, 516–545, 2002.
- F. Q. Hu, M. Y. Hussaini, and P. Rasetarinera, An Analysis of the Discontinuous Galerkin Method for Wave Propagation Problems, **151**, 921–946, 1999.

- H. H. Hu, N. A. Patankar, and M. Y. Zhu, Direct Numerical Simulations of Fluid–Solid Systems Using the Arbitrary Lagrangian–Eulerian Technique, **169**, 427–462, 2001.
- C. Hu and C.-W. Shu, Weighted Essentially Non-oscillatory Schemes on Triangular Meshes, **150**, 97–127, 1999.
- W. Huang, Practical Aspects of Formulation and Solution of Moving Mesh Partial Differential Equations, **171**, 753–775, 2001.
- W. Huang, Variational Mesh Adaptation: Isotropy and Equidistribution, **174**, 903–924, 2001.
- Y. Huang and A. Lerat, Second-Order Upwinding through a Characteristic Time-Step Matrix for Compressible Flow Calculations, **142**, 445–472, 1998.
- M. E. Hubbard, Multidimensional Slope Limiters for MUSCL-Type Finite Volume Schemes on Unstructured Grids, **155**, 54–74, 1999.
- M. E. Hubbard and M. J. Baines, Conservative Multidimensional Upwinding for the Steady Two-Dimensional Shallow Water Equations, **138**, 419–448, 1997.
- M. E. Hubbard and P. Garcia-Navarro, Flux Difference Splitting and the Balancing of Source Terms and Flux Gradients, **165**, 89–125, 2000.
- G. A. Huber and J. A. McCammon, OOMPAA—Object-Oriented Model for Probing Assemblages of Atoms, **151**, 264–282, 1999.
- T. J. R. Hughes, G. Engel, L. Mazzei, and M. G. Larson, The Continuous Galerkin Method Is Locally Conservative, **163**, 467–488, 2000.
- W. H. Hui and S. Kudriakov, A Unified Coordinate System for Solving the Three-Dimensional Euler Equations, **172**, 235–260, 2001.
- W. H. Hui, P. Y. Li, and Z. W. Li, A Unified Coordinate System for Solving the Two-Dimensional Euler Equations, **153**, 596–637, 1999.
- E. C. Hunke, Viscous–Plastic Sea Ice Dynamics with the EVP Model: Linearization Issues, **170**, 18–38, 2001.
- J. K. Hunter, Z. Li, and H. Zhao, Reactive Autophobic Spreading of Drops, **183**, 335–366, 2002.
- T. Huttunen, P. Monk, and J. P. Kaipio, Computational Aspects of the Ultra-Weak Variational Formulation, **182**, 27–46, 2002.
- C.-O. Hwang, J. A. Given, and M. Mascagni, The Simulation–Tabulation Method for Classical Diffusion Monte Carlo, **174**, 925–946, 2001.
- J. M. Hyman, S. Li, P. Knupp, and M. Shashkov, An Algorithm for Aligning a Quadrilateral Grid with Internal Boundaries, **163**, 133–149, 2000.
- J. M. Hyman and M. Shashkov, Mimetic Discretizations for Maxwell’s Equations, **151**, 881–909, 1999.
- J. Hyman, M. Shashkov, and S. Steinberg, The Numerical Solution of Diffusion Problems in Strongly Heterogeneous Non-isotropic Materials, **132**, 130–148, 1997.
- I
- T. Inamura, M. Yoshino, H. Inoue, R. Mizuno, and F. Ogino, A Lattice Boltzmann Method for a Binary Miscible Fluid Mixture and Its Application to a Heat-Transfer Problem, **179**, 201–215, 2002.
- S.-i. Inutsuka, Reformulation of Smoothed Particle Hydrodynamics with Riemann Solver, **179**, 238–267, 2002.
- M. S. Ingber and S. N. Kempka, A Galerkin Implementation of the Generalized Helmholtz Decomposition for Vorticity Formulations, **169**, 215–237, 2001.
- A. Iollo, M. Ferlauto, and L. Zannetti, An Aerodynamic Optimization Method Based on the Inverse Problem Adjoint Equations, **173**, 87–115, 2001.
- A. L. Islas, D. A. Karpeev, and C. M. Schober, Geometric Integrators for the Nonlinear Schrödinger Equation, **173**, 116–148, 2001.
- K. Ito and S. S. Ravindran, A Reduced-Order Method for Simulation and Control of Fluid Flows, **143**, 403–425, 1998.
- J
- D. J. Jacobs and B. Hendrickson, An Algorithm for Two-Dimensional Rigidity Percolation: The Pebble Game, **137**, 346–365, 1997.
- D. Jacqmin, Calculation of Two-Phase Navier–Stokes Flows Using Phase-Field Modeling, **155**, 96–127, 1999.
- M. Jaeger and M. Carin, The Front-Tracking ALE Method: Application to a Model of the Freezing of Cell Suspensions, **179**, 704–735, 2002.
- A. Jain, Compensating Mass Matrix Potential for Constrained Molecular Dynamics, **136**, 289–297, 1997.
- R. Jakob-Chien and B. K. Alpert, A Fast Spherical Filter with Uniform Resolution, **136**, 580–584, 1997.
- D. Jamet, O. Lebaigue, N. Coutris, and J. M. Delhayé, The Second Gradient Method for the Direct Numerical Simulation of Liquid–Vapor Flows with Phase Change, **169**, 624–651, 2001.
- D. Jamet, D. Torres, and J. U. Brackbill, On the Theory and Computation of Surface Tension: The Elimination of Parasitic Currents through Energy Conservation in the Second-Gradient Method, **182**, 262–276, 2002.
- M. J. Jamieson, On an Eighth Order Formula for Solving a Schrödinger Equation, **149**, 194–197, 1999.
- P. Janhunen, A Positive Conservative Method for Magneto-hydrodynamics Based on HLL and Roe Methods, **160**, 649–661, 2000.
- P. Jawahar and H. Kamath, A High-Resolution Procedure for Euler and Navier–Stokes Computations on Unstructured Grids, **164**, 165–203, 2000.
- B. Jayaram, K. J. McConnell, S. B. Dixit, and D. L. Beveridge, Free Energy Analysis of Protein–DNA Binding: The EcoRI Endonuclease–DNA Complex, **151**, 333–357, 1999.
- P. Jenny and B. Müller, Rankine–Hugoniot–Riemann Solver Considering Source Terms and Multidimensional Effects, **145**, 575–610, 1998.
- P. Jenny, B. Müller, and H. Thoman, Correction of Conservative Euler Solvers for Gas Mixtures, **132**, 91–107, 1997.
- P. Jenny, M. Muradoglu, K. Liu, S. B. Pope, and D. A. Caughey, PDF Simulations of a Bluff-Body Stabilized Flow, **169**, 1–23, 2001.
- P. Jenny, S. B. Pope, M. Muradoglu, and D. A. Caughey, A Hybrid Algorithm for the Joint PDF Equation of Turbulent Reactive Flows, **166**, 218–252, 2001.

- D. Jeon, Compact Finite Difference Method for Calculating Magnetic Field Components of Cyclotrons, **132**, 167–174, 1997.
- J. H. Jeong and I. S. Kang, Optimization of the Crystal Surface Temperature Distribution in the Single-Crystal Growth Process by the Czochralski Method, **177**, 284–312, 2002.
- J. P. Jessee, W. A. Fiveland, L. H. Howell, P. Colella, and R. B. Pember, An Adaptive Mesh Refinement Algorithm for the Radiative Transport Equation, **139**, 380–398, 1998.
- H. Jian, A. V. Vologodskii, and T. Schlick, A Combined Wormlike-Chain and Bead Model for Dynamic Simulations of Long Linear DNA, **136**, 168–179, 1997.
- Z. Jiang and K. Takayama, An Investigation into the Validation of Numerical Solutions of Complex Flowfields, **151**, 479–497, 1999.
- G.-S. Jiang and C.-c. Wu, A High-Order WENO Finite Difference Scheme for the Equations of Ideal Magnetohydrodynamics, **150**, 561–594, 1999.
- S. Jin and L. Pareschi, Discretization of the Multiscale Semiconductor Boltzmann Equation by Diffusive Relaxation Schemes, **161**, 312–330, 2000.
- S. Jin and X. Wang, Robust Numerical Simulation of Porosity Evolution in Chemical Vapor Infiltration. II. Two-Dimensional Anisotropic Fronts, **179**, 557–577, 2002.
- S. Jin, X. Wang, T. L. Starr, and X. Chen, Robust Numerical Simulation of Porosity Evolution in Chemical Vapor Infiltration I: Two Space Dimension, **162**, 467–482, 2000.
- H. Johansen and P. Colella, A Cartesian Grid Embedded Boundary Method for Poisson's Equation on Irregular Domains, **147**, 60–85, 1998.
- B. R. Johnson, J. L. Mackey, and J. L. Kinsey, Solution of Cartesian and Curvilinear Quantum Equations via Multiwavelets on the Interval, **168**, 356–383, 2001.
- H. Johnston and J.-G. Liu, Finite Difference Schemes for Incompressible Flow Based on Local Pressure Boundary Conditions, **180**, 120–154, 2002.
- D. A. Jones, L. G. Margolin, and A. C. Poje, Accuracy and Nonoscillatory Properties of Enslaved Difference Schemes, **181**, 705–728, 2002.
- W. P. Jones and K. R. Menzies, Analysis of the Cell-Centred Finite Volume Method for the Diffusion Equation, **165**, 45–68, 2000.
- O. S. Jones, U. Shumlak, and D. S. Eberhardt, An Implicit Scheme for Nonideal Magnetohydrodynamics, **130**, 231–242, 1997.
- S. A. Jordan, A Large-Eddy Simulation Methodology in Generalized Curvilinear Coordinates, **148**, 322–340, 1999.
- H.-J. Jou, P. H. Leo, and J. S. Lowengrub, Microstructural Evolution in Inhomogeneous Elastic Media, **131**, 109–148, 1997.
- G. Joyce, M. Lampe, S. P. Slinker, and W. M. Manheimer, Electrostatic Particle-in-Cell Simulation Technique for Quasineutral Plasma, **138**, 540–562, 1997.
- M. Junk and S. V. R. Rao, A New Discrete Velocity Method for Navier–Stokes Equations, **155**, 178–198, 1999.
- M. Junk, Kinetic Schemes in the Case of Low Mach Numbers, **151**, 947–968, 1999.
- K
- W. Kahan and R.-C. Li, Unconventional Schemes for a Class of Ordinary Differential Equations—with Applications to the Korteweg–de Vries Equation, **134**, 316–331, 1997.
- J. P. Kaipio and E. Somersalo, Estimating Anomalies from Indirect Observations, **181**, 398–406, 2002.
- L. Kalé, R. Skeel, M. Bhandarkar, R. Brunner, A. Gursoy, N. Krawetz, J. Phillips, A. Shinozaki, K. Varadarajan, and K. Schulten, NAMD2: Greater Scalability for Parallel Molecular Dynamics, **151**, 283–312, 1999.
- H.-J. Kaltenbach, Cell Aspect Ratio Dependence of Anisotropy Measures for Resolved and Subgrid Scale Stresses, **136**, 399–410, 1997.
- S. K. Kanaun, A Numerical Method for the Solution of Electromagnetic Wave Diffraction Problems on Perfectly Conducting Screens, **176**, 170–195, 2002.
- D. Kandhai, A. Koponen, A. Hoekstra, M. Kataja, J. Timonen, and P. M. A. Sloot, Implementation Aspects of 3D Lattice-BGK: Boundaries, Accuracy, and a New Fast Relaxation Method, **150**, 482–501, 1999.
- S.-Y. Kang and A. S. Sangani, An Efficient Method for Large-Scale Simulations of Bubbly Liquids, **179**, 330–345, 2002.
- K. C. Kannenberg and I. D. Boyd, Strategies for Efficient Particle Resolution in the Direct Simulation Monte Carlo Method, **157**, 727–745, 2000.
- G.-S. Karamanos and G. E. Karniadakis, A Spectral Vanishing Viscosity Method for Large-Eddy Simulations, **163**, 22–50, 2000.
- V. Karlin, Numerical Algorithms for Flows in the Nodes of 2D Models of Pipe Networks, **132**, 62–77, 1997.
- K. H. Karlsen, K.-A. Lie, J. R. Natvig, H. F. Nordhaug, and H. K. Dahle, Operator Splitting Methods for Systems of Convection–Diffusion Equations: Nonlinear Error Mechanisms and Correction Strategies, **173**, 636–663, 2001.
- K. H. Karlsen and N. H. Risebro, Unconditionally Stable Methods for Hamilton–Jacobi Equations, **180**, 710–735, 2002.
- S. Karni and S. Čanić, Computations of Slowly Moving Shocks, **136**, 132–139, 1997.
- S. Karni, A. Kurganov, and G. Petrova, A Smoothness Indicator for Adaptive Algorithms for Hyperbolic Systems, **178**, 323–341, 2002.
- M. Kawahara and Y. Ding, Bifurcation Analysis of Brown Tide by Reaction–Diffusion Equation Using Finite Element Method, **131**, 253–266, 1997.
- B. D. Keister and W. N. Polyzou, Useful Bases for Problems in Nuclear and Particle Physics, **134**, 231–235, 1997.
- F. J. Kelecy and R. H. Pletcher, The Development of a Free Surface Capturing Approach for Multidimensional Free Surface Flows in Closed Containers, **138**, 939–980, 1997.
- W. Kerner, J. P. Goedbloed, G. T. A. Huysmans, S. Poedts, and E. Schwarz, CASTOR: Normal-Mode Analysis of Resistive MHD Plasmas, **142**, 271–303, 1998.
- I. K. Khabibrakhmanov and G. V. Khazanov, The Spectral Collocation Method for the Kinetic Equation with the Nonlinear Two-Dimensional Coulomb Collisional Operator, **161**, 558–575, 2000.

- M. Khenner, A. Averbuch, M. Israeli, and M. Nathan, Numerical Simulation of Grain-Boundary Grooving by Level Set Method, **170**, 764–784, 2001.
- S. S. Khirwadkar, P. S. Pathak, S. Chaturvedi, and P. I. John, 2-D Guiding Centre Simulation of Toroidal Electron Clouds, **132**, 291–298, 1997.
- A. M. Khokhlov, Fully Threaded Tree Algorithms for Adaptive Refinement Fluid Dynamics Simulations, **143**, 519–543, 1998.
- D. Kim and H. Choi, A Second-Order Time-Accurate Finite Volume Method for Unsteady Incompressible Flow on Hybrid Unstructured Grids, **162**, 411–428, 2000.
- A. D. Kim and A. Ishimaru, A Chebyshev Spectral Method for Radiative Transfer Equations Applied to Electromagnetic Wave Propagation and Scattering in a Discrete Random Medium, **152**, 264–280, 1999.
- C. Kim and A. Jameson, A Robust and Accurate LED-BGK Solver on Unstructured Adaptive Meshes, **143**, 598–627, 1998.
- J. Kim, D. Kim, and H. Choi, An Immersed-Boundary Finite-Volume Method for Simulations of Flow in Complex Geometries, **171**, 132–150, 2001.
- K. H. Kim, C. Kim, and O.-H. Rho, Methods for the Accurate Computations of Hypersonic Flows. I. AUSMPW+ Scheme, **174**, 38–80, 2001.
- K. H. Kim, C. Kim, and O.-H. Rho, Methods for the Accurate Computations of Hypersonic Flows. II. Shock-Aligned Grid Technique, **174**, 81–119, 2001.
- J.-H. R. Kim, H. Maurer, Y. A. Astrov, M. Bode, and H.-G. Purwins, High-Speed Switch-On of a Semiconductor Gas Discharge Image Converter Using Optimal Control Methods, **170**, 395–414, 2001.
- C. C. Kim and S. E. Parker, Massively Parallel Three-Dimensional Toroidal Gyrokinetic Flux-Tube Turbulence Simulation, **161**, 589–604, 2000.
- A. Klar, Relaxation Scheme for a Lattice-Boltzmann-type Discrete Velocity Model and Numerical Navier–Stokes Limit, **148**, 416–432, 1999.
- L. Kleiser, C. Härtel, and T. Wintergerste, There Is No Error in the Kleiser–Schumann Influence Matrix Method, **141**, 85–87, 1998.
- P. Klouček and L. A. Melara, The Computational Modelling of Branching Fine Structures in Constrained Crystals, **183**, 623–651, 2002.
- P. Klouček and F. R. Toffoletto, The Three Dimensional Non-conforming Finite Element Solution of the Chapman–Ferraro Problem, **150**, 549–560, 1999.
- O. M. Knio and R. Klein, Improved Thin-Tube Models for Slender Vortex Simulations, **163**, 68–82, 2000.
- O. M. Knio, H. N. Najm, and P. S. Wyckoff, A Semi-implicit Numerical Scheme for Reacting Flow. II. Stiff, Operator-Split Formulation, **154**, 428–467, 1999.
- D. A. Knoll, An Improved Convection Scheme Applied to Recombining Divertor Plasma Flows, **142**, 473–488, 1998.
- D. A. Knoll, G. Lapenta, and J. U. Brackbill, A Multilevel Iterative Field Solver for Implicit, Kinetic, Plasma Simulation, **149**, 377–388, 1999.
- D. A. Knoll and V. A. Mousseau, On Newton–Krylov Multigrid Methods for the Incompressible Navier–Stokes Equations, **163**, 262–267, 2000.
- P. Knupp, L. G. Margolin, and M. Shashkov, Reference Jacobian Optimization-Based Rezone Strategies for Arbitrary Lagrangian Eulerian Methods, **176**, 93–128, 2002.
- M. H. Kobayashi, On a Class of Padé Finite Volume Methods, **156**, 137–180, 1999.
- M. H. Kobayashi, J. M. C. Pereira, and J. C. F. Pereira, A Conservative Finite-Volume Second-Order-Accurate Projection Method on Hybrid Unstructured Grids, **150**, 40–75, 1999.
- A. Kolesnikov and A. J. Baker, An Efficient High-Order Taylor Weak Statement Formulation for the Navier–Stokes Equations, **173**, 549–574, 2001.
- H. Kono, A. Kita, Y. Ohtsuki, and Y. Fujimura, An Efficient Quantum Mechanical Method for the Electronic Dynamics of the Three-Dimensional Hydrogen Atom Interacting with a Linearly Polarized Strong Laser Pulse, **130**, 148–159, 1997.
- D. A. Kopriva, A Staggered-Grid Multidomain Spectral Method for the Compressible Navier–Stokes Equations, **143**, 125–158, 1998.
- B. Koren, M. R. Lewis, E. H. van Brummelen, and B. van Leer, Riemann-Problem and Level-Set Approaches for Homentropic Two-Fluid Flow Computations, **181**, 654–674, 2002.
- G. Korniss, M. A. Novotny, and P. A. Rikvold, Parallelization of a Dynamic Monte Carlo Algorithm: A Partially Rejection-Free Conservative Approach, **153**, 488–508, 1999.
- P. J. Kostelec, D. K. Maslen, D. M. Healy, Jr., and D. N. Rockmore, Computational Harmonic Analysis for Tensor Fields on the Two-Sphere, **162**, 514–535, 2000.
- M. Košťun and J. Javanainen, An Alternative Numerical Method for Initial Value Problems Involving the Contact Nonlinear Hamiltonians, **172**, 298–308, 2001.
- A. D. Kotelnikov and D. C. Montgomery, A Kinetic Method for Computing Inhomogeneous Fluid Behavior, **134**, 364–388, 1997.
- P. Koumoutsakos, Inviscid Axisymmetrization of an Elliptical Vortex, **138**, 821–857, 1997.
- B. Krauskopf and H. Osinga, Growing 1D and Quasi-2D Unstable Manifolds of MAPS, **146**, 404–419, 1998.
- A. G. Kravchenko and P. Moin, On the Effect of Numerical Errors in Large Eddy Simulations of Turbulent Flows, **131**, 310–322, 1997.
- A. G. Kravchenko, P. Moin, and K. Sharif, B-Spline Method and Zonal Grids for Simulations of Complex Turbulent Flows, **151**, 757–789, 1999.
- S. Kreitmeyer, M. Wittkop, H. L. Trautenberg, T. Hölzl, and D. Göritz, Large-Scale Simulations on Polymer Melts, **133**, 181–185, 1997.
- K. Kremeyer, Cellular Automata Investigations of Binary Solidification, **142**, 243–263, 1998.
- J. H. Kristensen, G. L. Hoatson, and R. L. Vold, Design and Implementation of Runge–Kutta Methods for MAS NMR Lineshape Calculations, **170**, 415–447, 2001.
- M. C. A. Kropinski, An Efficient Numerical Method for Studying Interfacial Motion in Two-Dimensional Creeping Flows, **171**, 479–508, 2001.
- M. C. A. Kropinski, Numerical Methods for Multiple Inviscid Interfaces in Creeping Flows, **180**, 1–24, 2002.

- W. Kuang and J. Bloxham, Numerical Modeling of Magneto-hydrodynamic Convection in a Rapidly Rotating Spherical Shell: Weak and Strong Field Dynamo Action, **153**, 51–81, 1999.
- A. A. Kulikovskiy, Simple and Accurate Scheme for Nonlinear Convection–Diffusion Equation, **173**, 716–729, 2001.
- R. F. Kunz, W. K. Cope, and S. Venkateswaran, Development of an Implicit Method for Multi-fluid Flow Simulations, **152**, 78–101, 1999.
- R. Kupferman, Simulation of Viscoelastic Fluids: Couette–Taylor Flow, **147**, 22–59, 1998.
- A. Kuprat, A. Khamayseh, D. George, and L. Larkey, Volume Conserving Smoothing for Piecewise Linear Curves, Surfaces, and Triple Lines, **172**, 99–118, 2001.
- A. Kurganov and E. Tadmor, New High-Resolution Central Schemes for Nonlinear Conservation Laws and Convection–Diffusion Equations, **160**, 241–282, 2000.
- A. Kurganov and E. Tadmor, New High-Resolution Semi-discrete Central Schemes for Hamilton–Jacobi Equations, **160**, 720–742, 2000.
- D. Kuzmin and S. Turek, Flux Correction Tools for Finite Elements, **175**, 525–558, 2002.
- S. Kwak and C. Pozrikidis, Adaptive Triangulation of Evolving, Closed, or Open Surfaces by the Advancing-Front Method, **145**, 61–88, 1998.
- W. Y. Kwok, R. D. Moser, and J. Jiménez, A Critical Evaluation of the Resolution Properties of B-Spline and Compact Finite Difference Methods, **174**, 510–551, 2001.
- L
- G. Labonia, F. Stella, E. Leonardi, and G. Guj, A Numerical Study of the Effect of Free Surface Deformation on Buoyancy and Thermocapillary Convection, **132**, 34–50, 1997.
- E. Labourasse and P. Sagaut, Reconstruction of Turbulent Fluctuations Using a Hybrid RANS/LES Approach, **182**, 301–336, 2002.
- M.-C. Lai, A Simple Compact Fourth-Order Poisson Solver on Polar Geometry, **182**, 337–345, 2002.
- M.-C. Lai and C. S. Peskin, An Immersed Boundary Method with Formal Second-Order Accuracy and Reduced Numerical Viscosity, **160**, 705–719, 2000.
- C. W. Lan and M. C. Liang, Multigrid Methods for Incompressible Heat Flow Problems with an Unknown Interface, **152**, 55–77, 1999.
- C. W. Lan, C. C. Liu, and C. M. Hsu, An Adaptive Finite Volume Method for Incompressible Heat Flow Problems in Solidification, **178**, 464–497, 2002.
- A. B. Langdon, Introduction to “Clouds-in-Clouds, Clouds-in-Cells Physics for Many-Body Simulation,” **135**, 139–140, 1997.
- U. Lange, K. Nandakumar, and H. Raszillier, Symbolic Computation as a Tool for High-Order Long-Wave Stability Analysis of Thin Film Flows with Coupled Transport Processes, **150**, 1–16, 1999.
- J. O. Langseth and R. J. LeVeque, A Wave Propagation Method for Three-Dimensional Hyperbolic Conservation Laws, **165**, 126–166, 2000.
- D. Lanser, J. G. Blom, and J. G. Verwer, Spatial Discretization of the Shallow Water Equations in Spherical Geometry Using Osher’s Scheme, **165**, 542–565, 2000.
- D. Lanser, J. G. Blom, and J. G. Verwer, Time Integration of the Shallow Water Equations in Spherical Geometry, **171**, 373–393, 2001.
- E. W. Larsen, G. Thömmes, A. Klar, M. Seaid, and T. Götz, Simplified P_N Approximations to the Equations of Radiative Heat Transfer and Applications, **183**, 652–675, 2002.
- G. Lapenta, Particle Rezoning for Multidimensional Kinetic Particle-In-Cell Simulations, **181**, 317–337, 2002.
- I. J. Laurenzi, J. D. Bartels, and S. L. Diamond, A General Algorithm for Exact Simulation of Multicomponent Aggregation Processes, **177**, 418–449, 2002.
- M. Lappa and R. Savino, 3D Analysis of Crystal/Melt Interface Shape and Marangoni Flow Instability in Solidifying Liquid Bridges, **180**, 751–774, 2002.
- P. D. Lax, Introduction to “High Resolution Schemes for Hyperbolic Conservation Laws,” **135**, 259, 1997.
- A. T. Layton, Cubic Spline Collocation Method for the Shallow Water Equations on the Sphere, **179**, 578–592, 2002.
- L. Leboucher, Monotone Scheme and Boundary Conditions for Finite Volume Simulation of Magneto-hydrodynamic Internal Flows at High Hartmann Number, **150**, 181–198, 1999.
- D. Lee, Design Criteria for Local Euler Preconditioning, **144**, 423–459, 1998.
- D. Lee, The Design of Local Navier–Stokes Preconditioning for Compressible Flow, **144**, 460–483, 1998.
- T. Lee and C.-L. Lin, A Characteristic Galerkin Method for Discrete Boltzmann Equation, **171**, 336–356, 2001.
- M. J. Lee, B. D. Oh, and Y. B. Kim, Canonical Fractional-Step Methods and Consistent Boundary Conditions for the Incompressible Navier–Stokes Equations, **168**, 73–100, 2001.
- C. Lee and Y. Seo, A New Compact Spectral Scheme for Turbulence Simulations, **183**, 438–469, 2002.
- W. R. Lee, S. Wang, and K. L. Teo, An Optimization Approach to a Finite Dimensional Parameter Estimation Problem in Semiconductor Device Design, **156**, 241–256, 1999.
- O. Legrand, F. Mortessagne, P. Sebbah, and C. Vanneste, A Wave Automaton for Wave Propagation in Inhomogeneous Anisotropic Media, **160**, 541–563, 2000.
- L. Lehner, A Dissipative Algorithm for Wave-like Equations in the Characteristic Formulation, **149**, 59–74, 1999.
- B. Leimkuhler and S. Reich, A Reversible Averaging Integrator for Multiple Time-Scale Dynamics, **171**, 95–114, 2001.
- O. P. Le Maître, O. M. Knio, H. N. Najm, and R. G. Ghanem, A Stochastic Projection Method for Fluid Flow. I. Basic Formulation, **173**, 481–511, 2001.
- O. Le Maître, J. Levin, M. Iskandarani, and O. M. Knio, A Multiscale Pressure Splitting of the Shallow-Water Equations. I. Formulation and 1D Tests, **166**, 116–151, 2001.
- O. P. Le Maître, M. T. Reagan, H. N. Najm, R. G. Ghanem, and O. M. Knio, A Stochastic Projection Method for Fluid Flow. II. Random Process, **181**, 9–44, 2002.

- M. Lemou, Numerical Algorithms for Axisymmetric Fokker–Planck–Landau Operators, **157**, 762–786, 2000.
- P. H. Leo, J. S. Lowengrub, and Q. Nie, Microstructural Evolution in Orthotropic Elastic Media, **157**, 44–88, 2000.
- A. Lerat and C. Corre, A Residual-Based Compact Scheme for the Compressible Navier–Stokes Equations, **170**, 642–675, 2001.
- R. J. LeVeque, Wave Propagation Algorithms for Multidimensional Hyperbolic Systems, **131**, 327–353, 1997.
- R. J. LeVeque, Balancing Source Terms and Flux Gradients in High-Resolution Godunov Methods: The Quasi-steady Wave-Propagation Algorithm, **146**, 346–365, 1998.
- R. J. LeVeque and M. Pelanti, A Class of Approximate Riemann Solvers and Their Relation to Relaxation Schemes, **172**, 572–591, 2001.
- J. G. Levin, M. Iskandarani, and D. B. Haidvogel, A Spectral Filtering Procedure for Eddy-Resolving Simulations with a Spectral Element Ocean Model, **137**, 130–154, 1997.
- J. P. Lewis, S. Liu, T.-S. Lee, and W. Yang, A Linear-Scaling Quantum Mechanical Investigation of Cytidine Deaminase, **151**, 242–263, 1999.
- Y. Li, Wavenumber-Extended High-Order Upwind-Biased Finite-Difference Schemes for Convective Scalar Transport, **133**, 235–255, 1997.
- T.-L. Li, Simulation of the Postexposure Bake Process of Chemically Amplified Resists by Reaction–Diffusion Equations, **173**, 348–363, 2001.
- Z. Li and M.-C. Lai, The Immersed Interface Method for the Navier–Stokes Equations with Singular Forces, **171**, 822–842, 2001.
- G. Li and M. F. Modest, An Effective Particle Tracing Scheme on Structured/Unstructured Grids in Hybrid Finite Volume/PDF Monte Carlo Methods, **173**, 187–207, 2001.
- S. Li and L. Petzold, Moving Mesh Methods With Upwinding Schemes for Time-Dependent PDEs, **131**, 368–377, 1997.
- R. Li, T. Tang, and P. Zhang, Moving Mesh Methods in Multiple Dimensions Based on Harmonic Maps, **170**, 562–588, 2001.
- R. Li, T. Tang, and P. Zhang, A Moving Mesh Finite Element Algorithm for Singular Problems in Two and Three Space Dimensions, **177**, 365–393, 2002.
- Z. Li, H. Zhao, and H. Gao, A Numerical Study of Electromigration Voiding by Evolving Level Set Functions on a Fixed Cartesian Grid, **152**, 281–304, 1999.
- Y. S. Lian and K. Xu, A Gas-Kinetic Scheme for Multimaterial Flows and Its Application in Chemical Reactions, **163**, 349–375, 2000.
- G. Liao, F. Liu, G. C. de la Pena, D. Peng, and S. Osher, Level-Set-Based Deformation Methods for Adaptive Grids, **159**, 103–122, 2000.
- D. K. Lilly, Introduction to “Computational Design for Long-Term Numerical Integration of the Equations of Fluid Motion: Two-Dimensional incompressible flow. Part I,” **135**, 101–102, 1997.
- K. K. Lin, Numerical Study of Quantum Resonances in Chaotic Scattering, **176**, 295–329, 2002.
- Y.-H. Lin and R. A. Adomaitis, Simulation and Model Reduction Methods for an RF Plasma Glow Discharge, **171**, 731–752, 2001.
- C.-L. Lin, T. Chai, and J. Sun, On the Smoothness Constraints for Four-Dimensional Data Assimilation, **181**, 430–453, 2002.
- T. Linde and P. Roe, On a Mistaken Notion of “Proper Upwinding,” **142**, 611–614, 1998.
- K. Lindsay and R. Krasny, A Particle Method and Adaptive Treecode for Vortex Sheet Motion in Three-Dimensional Flow, **172**, 879–907, 2001.
- H. Y. Ling, Solution of Generalized Optical Bloch Equations by the Method of Matrix Continued Fraction, **171**, 264–271, 2001.
- R. Lionello, Z. Mikić, and J. A. Linker, Stability of Algorithms for Waves with Large Flows, **152**, 346–358, 1999.
- R. Lionello, Z. Mikić, and D. D. Schnack, Magnetohydrodynamics of Solar Coronal Plasmas in Cylindrical Geometry, **140**, 172–201, 1998.
- M.-S. Liou, Mass Flux Schemes and Connection to Shock Instability, **160**, 623–648, 2000.
- R. A. Lippert, T. A. Arias, and A. Edelman, Multiscale Computation with Interpolating Wavelets, **140**, 278–310, 1998.
- R. Liska and B. Wendroff, Analysis and Computation with Stratified Fluid Models, **137**, 212–244, 1997.
- X.-D. Liu, R. P. Fedkiw, and M. Kang, A Boundary Condition Capturing Method for Poisson’s Equation on Irregular Domains, **160**, 151–178, 2000.
- H. Liu and K. Kawachi, A Numerical Study of Insect Flight, **146**, 124–156, 1998.
- H. Liu and K. Kawachi, A Numerical Study of Undulatory Swimming, **155**, 223–247, 1999.
- X.-D. Liu and S. Osher, Convex ENO High Order Multidimensional Schemes without Field by Field Decomposition or Staggered Grids, **142**, 304–330, 1998.
- J.-G. Liu and C.-W. Shu, A High-Order Discontinuous Galerkin Method for 2D Incompressible Flows, **160**, 577–596, 2000.
- J.-G. Liu and W.-C. Wang, An Energy-Preserving MAC–Yee Scheme for the Incompressible MHD Equation, **174**, 12–37, 2001.
- C. Liu, X. Zheng, and C. H. Sung, Preconditioned Multigrid Methods for Unsteady Incompressible Flows, **139**, 35–57, 1998.
- Y. Liu and M. Vinokur, Exact Integrations of Polynomials and Symmetric Quadrature Formulas over Arbitrary Polyhedral Grids, **140**, 122–147, 1998.
- J. C. Lombardi, Jr., A. Sills, F. A. Rasio, and S. L. Shapiro, Tests of Spurious Transport in Smoothed Particle Hydrodynamics, **152**, 687–735, 1999.
- I. Lomtev, R. M. Kirby, and G. E. Karniadakis, A Discontinuous Galerkin ALE Method for Compressible Viscous Flows in Moving Domains, **155**, 128–159, 1999.
- I. Lomtev, C. B. Quillen, and G. E. Karniadakis, Spectral/hp Methods for Viscous Compressible Flows on Unstructured 2D Meshes, **144**, 325–357, 1998.
- A. S. Lopes and J. M. L. M. Palma, Numerical Simulation of Isotropic Turbulence Using a Collocated Approach and a Nonorthogonal Grid System, **175**, 713–738, 2002.

- J. M. Lopez, F. Marques, and J. Shen, An Efficient Spectral-Projection Method for the Navier–Stokes Equations in Cylindrical Geometries. II. Three-Dimensional Cases, **176**, 384–401, 2002.
- J. M. Lopez and J. Shen, An Efficient Spectral-Projection Method for the Navier–Stokes Equations in Cylindrical Geometries. I. Axisymmetric Cases, **139**, 308–326, 1998.
- D. A. Lott, S. S. Antman, and W. G. Szymczak, The Quasi-linear Wave Equation for Antiplane Shearing of Non-linearly Elastic Bodies, **171**, 201–226, 2001.
- L. Lou, Exploring Sparsity in Three-Dimensional Integration for Density-Functional Calculations, **157**, 404–416, 2000.
- T. Lou, D. C. Dahlby, and D. Baganoff, A Numerical Study Comparing Kinetic Flux–Vector Splitting for the Navier–Stokes Equations with a Particle Method, **145**, 489–510, 1998.
- M. F. Lough, S. H. Lee, and J. Kamath, An Efficient Boundary Integral Formulation for Flow Through Fractured Porous Media, **143**, 462–483, 1998.
- Y. Y. Lu, One-Way Large Range Step Methods for Helmholtz Waveguides, **152**, 231–250, 1999.
- Z. Lu, Y. Liao, D. Qian, J. B. McLaughlin, J. J. Derksen, and K. Kontomaris, Large Eddy Simulations of a Stirred Tank Using the Lattice Boltzmann Method on a Nonuniform Grid, **181**, 675–704, 2002.
- H.-I. Lu and F. R. Robertson, Retrieving the Balanced Winds on the Globe as a Generalized Inverse Problem, **170**, 299–319, 2001.
- M. Lu, J. Wang, A. A. Ergin, and E. Michielssen, Fast Evaluation of Two-Dimensional Transient Wave Fields, **158**, 161–185, 2000.
- M. Lukáčová-Medvid'ová, J. Saibertová, and G. Warnecke, Finite Volume Evolution Galerkin Methods for Nonlinear Hyperbolic Systems, **183**, 533–562, 2002.
- J. H. C. Luke, A Finite Difference Method for Dispersive Linear Waves with Applications to Simulating Microwave Pulses in Water, **148**, 199–226, 1999.
- T. S. Lund, X. Wu, and K. D. Squires, Generation of Turbulent Inflow Data for Spatially-Developing Boundary Layer Simulations, **140**, 233–258, 1998.
- H. Luo, J. D. Baum, and R. Löhner, A Fast, Matrix-Free Implicit Method for Compressible Flows on Unstructured Grids, **146**, 664–690, 1998.
- H. V. Ly, F. Reitich, M. R. Jolly, H. T. Banks, and K. Ito, Simulations of Particle Dynamics in Magnetorheological Fluids, **155**, 160–177, 1999.
- F. H. Lyard, Data Assimilation in a Wave Equation: A Variational Representer Approach for the Grenoble Tidal Model, **149**, 1–31, 1999.
- G. C. Lynch, J. S. Perkyns, and B. Montgomery Pettitt, Kirkwood–Buff Thermodynamics Derived from Grand Canonical Molecular Dynamics and DRISM Calculations, **151**, 135–145, 1999.
- mittance Data: Critique of Earlier Work, **157**, 280–301, 2000.
- L. Machiels and M. O. Deville, Numerical Simulation of Randomly Forced Turbulent Flows, **145**, 246–279, 1998.
- L. Machiels, J. Peraire, and A. T. Patera, *A Posteriori* Finite-Element Output Bounds for the Incompressible Navier–Stokes Equations: Application to a Natural Convection Problem, **172**, 401–425, 2001.
- J. A. Mackenzie and M. L. Robertson, The Numerical Solution of One-Dimensional Phase Change Problems Using an Adaptive Moving Mesh Method, **161**, 537–557, 2000.
- J. A. Mackenzie and M. L. Robertson, A Moving Mesh Method for the Solution of the One-Dimensional Phase-Field Equations, **181**, 526–544, 2002.
- M. N. Macrossan, *v*-DSMC: A Fast Simulation Method for Rarefied Flow, **173**, 600–619, 2001.
- A. Mahadevan and D. Archer, Modeling a Limited Region of the Ocean, **145**, 555–574, 1998.
- K. Mahesh, A Family of High Order Finite Difference Schemes with Good Spectral Resolution, **145**, 332–358, 1998.
- G. B. Mainland, Logarithmic Singularities in Two-Body, Bound-State Integral Equations, **174**, 852–869, 2001.
- A. Majorana and R. M. Pidotella, A Finite Difference Scheme Solving the Boltzmann–Poisson System for Semiconductor Devices, **174**, 649–668, 2001.
- J. Makino, Yet Another Fast Multipole Method without Multipoles—Pseudoparticle Multipole Method, **151**, 910–920, 1999.
- N. A. Malamataris and V. Bontozoglou, Computer Aided Analysis of Viscous Film Flow along an Inclined Wavy Wall, **154**, 372–392, 1999.
- A. Mangeney, F. Califano, C. Cavazzoni, and P. Travnicek, A Numerical Scheme for the Integration of the Vlasov–Maxwell System of Equations, **179**, 495–538, 2002.
- J. Malarkey and A. G. Davies, Use of Routh's Correction in the Cloud-in-Cell Discrete Vortex Method, **181**, 753–759, 2002.
- J. Mandel, An Iterative Substructuring Method for Coupled Fluid–Solid Acoustic Problems, **177**, 95–116, 2002.
- W. M. Manheimer, M. Lampe, and G. Joyce, Langevin Representation of Coulomb Collisions in PIC Simulations, **138**, 563–584, 1997.
- M. Manna and A. Vacca, An Efficient Method for the Solution of the Incompressible Navier–Stokes Equations in Cylindrical Geometries, **151**, 563–584, 1999.
- J. R. Mansfield, O. M. Knio, and C. Meneveau, A Dynamic LES Scheme for the Vorticity Transport Equation: Formulation and *a Priori* Tests, **145**, 693–730, 1998.
- J. R. Mansfield, O. M. Knio, and C. Meneveau, Dynamic LES of Colliding Vortex Rings Using a 3D Vortex Method, **152**, 305–345, 1999.
- J. R. Manson and S. G. Wallis, Accuracy Characteristics of Traditional Finite Volume Discretizations for Unsteady Computational Fluid Dynamics, **132**, 149–153, 1997.
- S. Marano, M. Medugno, and M. Longo, A Real-Time Parallel Application: The Detection of Gravitational Waves by a Network of Heterogeneous Workstations, **139**, 15–34, 1998.

- L. G. Margolin, Introduction to “An Arbitrary Lagrangian–Eulerian Computing Method for all Flow Speeds,” **135**, 198–202, 1997.
- L. Margolin and M. Shashkov, Using a Curvilinear Grid to Construct Symmetry-Preserving Discretizations for Lagrangian Gas Dynamics, **149**, 389–417, 1999.
- D. Marinescu, A. Espeset, and C. P. Grünfeld, Tests of a Simulation Method for Boltzmann-like Models with Chemical Reactions, **175**, 225–248, 2002.
- V. Maronnier, M. Picasso, and J. Rappaz, Numerical Simulation of Free Surface Flows, **155**, 439–455, 1999.
- A. Márquez and S. Meddahi, New Implementation Techniques for the Exterior Stokes Problem in the Plane, **172**, 685–703, 2001.
- A. L. Marsden, O. V. Vasilyev, and P. Moin, Construction of Commutative Filters for LES on Unstructured Meshes, **175**, 584–603, 2002.
- J. S. Marshall and J. R. Grant, A Lagrangian Vorticity Collocation Method for Viscous, Axisymmetric Flows with and Without Swirl, **138**, 302–330, 1997.
- J. S. Marshall, J. R. Grant, A. A. Gossler, and S. A. Huyer, Vorticity Transport on a Lagrangian Tetrahedral Mesh, **161**, 85–113, 2000.
- D. F. Martin and P. Colella, A Cell-Centered Adaptive Projection Method for the Incompressible Euler Equations, **163**, 271–312, 2000.
- J. A. Maruhn, T. Bürvenich, and D. G. Madland, Calculating the Fierz Transformation for Higher Orders, **169**, 238–245, 2001.
- T. Matsuo and D. Furihata, Dissipative or Conservative Finite-Difference Schemes for Complex-Valued Nonlinear Partial Differential Equations, **171**, 425–447, 2001.
- T. Matsushima and P. S. Marcus, A Spectral Method for Unbounded Domains, **137**, 321–345, 1997.
- C. Mattiussi, An Analysis of Finite Volume, Finite Element, and Finite Difference Methods Using Some Concepts from Algebraic Topology, **133**, 289–309, 1997.
- B. Maury, Direct Simulations of 2D Fluid-Particle Flows in Biperiodic Domains, **156**, 325–351, 1999.
- D. J. Mavriplis, Multigrid Strategies for Viscous Flow Solvers on Anisotropic Unstructured Meshes, **145**, 141–165, 1998.
- D. J. Mavriplis, An Assessment of Linear Versus Nonlinear Multigrid Methods for Unstructured Mesh Solvers, **175**, 302–325, 2002.
- S. Mazumder and S. A. Lowry, The Treatment of Reacting Surfaces for Finite-Volume Schemes on Unstructured Meshes, **173**, 512–526, 2001.
- A. K. Mazur, Common Molecular Dynamics Algorithms Revisited: Accuracy and Optimal Time Steps of Störmer–Leapfrog Integrators, **136**, 354–365, 1997.
- A. Mazzia, L. Bergamaschi, and M. Putti, A Time-Splitting Technique for the Advection-Dispersion Equation in Groundwater, **157**, 181–198, 2000.
- P. McCorquodale, P. Colella, and H. Johansen, A Cartesian Grid Embedded Boundary Method for the Heat Equation on Irregular Domains, **173**, 620–635, 2001.
- J. L. Mead and R. A. Renaut, Optimal Runge–Kutta Methods for First Order Pseudospectral Operators, **152**, 404–419, 1999.
- R. Mei, L.-S. Luo, and W. Shyy, An Accurate Curved Boundary Treatment in the Lattice Boltzmann Method, **155**, 307–330, 1999.
- R. Mei and W. Shyy, On the Finite Difference-Based Lattice Boltzmann Method in Curvilinear Coordinates, **143**, 426–448, 1998.
- R. Mei, W. Shyy, D. Yu, and L.-S. Luo, Lattice Boltzmann Method for 3-D Flows with Curved Boundary, **161**, 680–699, 2000.
- A. Meister, Comparison of Different Krylov Subspace Methods Embedded in an Implicit Finite Volume Scheme for the Computation of Viscous and Inviscid Flow Fields on Unstructured Grids, **140**, 311–345, 1998.
- H. L. Meitz and H. F. Fasel, A Compact-Difference Scheme for the Navier–Stokes Equations in Vorticity–Velocity Formulation, **157**, 371–403, 2000.
- F. Mémolli and G. Sapiro, Fast Computation of Weighted Distance Functions and Geodesics on Implicit Hyper-Surfaces, **173**, 730–764, 2001.
- R. M. H. Merks, A. G. Hoekstra, and P. M. A. Sloot, The Moment Propagation Method for Advection–Diffusion in the Lattice Boltzmann Method: Validation and Péclet Number Limits, **183**, 563–576, 2002.
- I. Men’shov and Y. Nakamura, Implementation of the Variational Riemann Problem Solution for Calculating Propagation of Sound Waves in Nonuniform Flow Fields, **182**, 118–148, 2002.
- A. M. Micu, B. Bagheri, A. V. Ilin, L. R. Scott, and B. M. Pettitt, Numerical Considerations in the Computation of the Electrostatic Free Energy of Interaction within the Poisson–Boltzmann Theory, **136**, 263–271, 1997.
- L. Mieussens, Discrete-Velocity Models and Numerical Schemes for the Boltzmann–BGK Equation in Plane and Axisymmetric Geometries, **162**, 429–466, 2000.
- M. Milano and P. Koumoutsakos, A Clustering Genetic Algorithm for Cylinder Drag Optimization, **175**, 79–107, 2002.
- M. Milano and P. Koumoutsakos, Neural Network Modeling for Near Wall Turbulent Flow, **182**, 1–26, 2002.
- G. H. Miller and P. Colella, A High-Order Eulerian Godunov Method for Elastic–Plastic Flow in Solids, **167**, 131–176, 2001.
- G. H. Miller and P. Colella, A Conservative Three-Dimensional Eulerian Method for Coupled Solid–Fluid Shock Capturing, **183**, 26–82, 2002.
- M. S. Min and C. H. Teng, The Instability of the Yee Scheme for the “Magic Time Step,” **166**, 418–424, 2001.
- M. L. Minion and D. L. Brown, Performance of Under-resolved Two-Dimensional Incompressible Flow Simulations, II, **138**, 734–765, 1997.
- A. V. Mitin, New Methods for Calculations of the Lowest Eigenvalues of the Real Symmetric Generalized Eigenvalue Problem, **161**, 653–667, 2000.
- P. Moeleker and A. Leonard, Lagrangian Methods for the Tensor-Diffusivity Subgrid Model, **167**, 1–21, 2001.
- L. Möhring and W. Möhring, On the Determination of a Velocity Field with Prescribed Vorticity, **147**, 229–235, 1998.
- K. Mohseni and T. Colonius, Numerical Treatment of Polar Coordinate Singularities, **157**, 787–795, 2000.

- P. Moinier and M. B. Giles, Stability Analysis of Preconditioned Approximations of the Euler Equations on Unstructured Meshes, **178**, 498–519, 2002.
- J. J. Monaghan, SPH and Riemann Solvers, **136**, 298–307, 1997.
- J. J. Monaghan, SPH without a Tensile Instability, **159**, 290–311, 2000.
- J. J. Monaghan, Implicit SPH Drag and Dusty Gas Dynamics, **138**, 801–820, 1997.
- P. Monk and K. Parrott, Phase-Accuracy Comparisons and Improved Far-Field Estimates for 3-D Edge Elements on Tetrahedral Meshes, **170**, 614–641, 2001.
- P. Montarnal and C.-W. Shu, Real Gas Computation Using an Energy Relaxation Method and High-Order WENO Schemes, **148**, 59–80, 1999.
- R. S. Montero, I. M. Llorente, and M. D. Salas, Robust Multigrid Algorithms for the Navier–Stokes Equations, **173**, 412–732, 2001.
- J. E. Morel, M. L. Hall, and M. J. Shashkov, A Local Support-Operators Diffusion Discretization Scheme for Hexahedral Meshes, **170**, 338–372, 2001.
- J. E. Morel, R. M. Roberts, and M. J. Shashkov, A Local Support-Operators Diffusion Discretization Scheme for Quadrilateral r - z Meshes, **144**, 17–51, 1998.
- C. Morey, J. Scales, and E. S. Van. Vleck, A Feedback Algorithm for Determining Search Parameters for Monte Carlo Optimization, **146**, 263–281, 1998.
- Y. Morinishi, T. S. Lund, O. V. Vasilyev, and P. Moin, Fully Conservative Higher Order Finite Difference Schemes for Incompressible Flow, **143**, 90–124, 1998.
- J. P. Morris, P. J. Fox, and Y. Zhu, Modeling Low Reynolds Number Incompressible Flows Using SPH, **136**, 214–226, 1997.
- J. P. Morris and J. J. Monaghan, A Switch to Reduce SPH Viscosity, **136**, 41–50, 1997.
- P. J. Morris, L. N. Long, A. Bangalore, and Q. Wang, A Parallel Three-Dimensional Computational Aeroacoustics Method Using Nonlinear Disturbance Equations, **133**, 56–74, 1997.
- J.-M. Moschetta and D. I. Pullin, A Robust Low Diffusive Kinetic Scheme for the Navier–Stokes/Euler Equations, **133**, 193–204, 1997.
- H. C. Motin, Solving Integral Equations by Reconstruction in Isomorphic Taylor Coefficient Spaces, **143**, 291–311, 1998.
- D. R. Mott, E. S. Oran, and B. van Leer, A Quasi-Steady-State Solver for the Stiff Ordinary Differential Equations of Reaction Kinetics, **164**, 407–428, 2000.
- L. Mottura, L. Vigevano, and M. Zaccanti, An Evaluation of Roe’s Scheme Generalizations for Equilibrium Real Gas Flows, **138**, 354–399, 1997.
- F. Moukalled and M. Darwish, A High-Resolution Pressure-Based Algorithm for Fluid Flow at All Speeds, **168**, 101–130, 2001.
- J. D. Moulton, J. E. Dendy Jr., and J. M. Hyman, The Black Box Multigrid Numerical Homogenization Algorithm, **142**, 80–108, 1998.
- V. A. Mousseau and D. A. Knoll, Fully Implicit Kinetic Solution of Collisional Plasmas, **136**, 308–323, 1997.
- V. A. Mousseau, D. A. Knoll, and W. J. Rider, Physics-Based Preconditioning and the Newton–Krylov Method for Non-equilibrium Radiation Diffusion, **160**, 743–765, 2000.
- M. Mu, A Multiple-Heaps Algorithm for Parallel Simulation of Collision Systems, **179**, 539–556, 2002.
- L. S. Mulholland, Y. Qui, and D. M. Sloan, Solution of Evolutionary Partial Differential Equations Using Adaptive Finite Differences with Pseudospectral Post-processing, **131**, 280–298, 1997.
- C.-D. Munz, P. Omnes, R. Schneider, E. Sonnendrücker, and U. Voß, Divergence Correction Techniques for Maxwell Solvers Based on a Hyperbolic Model, **161**, 484–511, 2000.
- M. Muradoglu, P. Jenny, S. B. Pope, and D. A. Caughey, A Consistent Hybrid Finite-Volume/Particle Method for the PDF Equations of Turbulent Reactive Flows, **154**, 342–371, 1999.
- M. Muradoglu, S. B. Pope, and D. A. Caughey, The Hybrid Method for the PDF Equations of Turbulent Reactive Flows: Consistency Conditions and Correction Algorithms, **172**, 841–878, 2001.
- R. J. Murray and C. J. C. Reason, A Curvilinear Version of the Bryan–Cox–Semtner Ocean Model and Its Representation of the Arctic Circulation, **171**, 1–46, 2001.
- S. Muzaferija and D. Gosman, Finite-Volume CFD Procedure and Adaptive Error Control Strategy for Grids of Arbitrary Topology, **138**, 766–787, 1997.
- R. S. Myong, A Computational Method for Eu’s Generalized Hydrodynamic Equations of Rarefied and Microscale Gasdynamics, **168**, 47–72, 2001.
- R. S. Myong and P. L. Roe, On Godunov-Type Schemes for Magnetohydrodynamics. I. A. Model System, **147**, 545–567, 1998.

N

- H. N. Najm, P. S. Wyckoff, and O. M. Knio, A Semi-implicit Numerical Scheme for Reacting Flow. I. Stiff Chemistry, **143**, 381–402, 1998.
- T. Nakamura, R. Tanaka, T. Yabe, and K. Takizawa, Exactly Conservative Semi-Lagrangian Scheme for Multi-dimensional Hyperbolic Equations with Directional Splitting Technique, **174**, 171–207, 2001.
- K. Nanbu and S. Yonemura, Weighted Particles in Coulomb Collision Simulations Based on the Theory of a Cumulative Scattering Angle, **145**, 639–654, 1998.
- P. L. Nash and L. Y. Chen, Efficient Finite Difference Solutions to the Time-Dependent Schrödinger Equation, **130**, 266–268, 1997.
- B. Neta, F. X. Giraldo, and I. M. Navon, Analysis of the Turkel–Zwas Scheme for the Two-Dimensional Shallow Water Equations in Spherical Coordinates, **133**, 102–112, 1997.
- D. Q. Nguyen, R. P. Fedkiw, and M. Kang, A Boundary Condition Capturing Method for Incompressible Flame Discontinuities, **172**, 71–98, 2001.
- D. P. Nicholls, Traveling Water Waves: Spectral Continuation Methods with Parallel Implementation, **143**, 224–240, 1998.

- D. P. Nicholls and F. Reitich, Stability of High-Order Perturbative Methods for the Computation of Dirichlet–Neumann Operators, **170**, 276–298, 2001.
- F. Nicoud, Defining Wave Amplitude in Characteristic Boundary Conditions, **149**, 418–422, 1999.
- F. Nicoud, Conservative High-Order Finite-Difference Schemes for Low-Mach Number Flows, **158**, 71–97, 2000.
- Q. Nie, The Nonlinear Evolution of Vortex Sheets with Surface Tension in Axisymmetric Flows, **174**, 438–459, 2001.
- Q. Nie and G. Baker, Application of Adaptive Quadrature to Axi-symmetric Vortex Sheet Motion, **143**, 49–69, 1998.
- M. Nitsche, Singularity Formation in a Cylindrical and a Spherical Vortex Sheet, **173**, 208–230, 2001.
- S. Noelle, The MoT-ICE: A New High-Resolution Wave-Propagation Algorithm for Multidimensional Systems of Conservation Laws Based on Fey’s Method of Transport, **164**, 283–334, 2000.
- H. O. Nordmark, Efficient and Highly Accurate Computation of a Class of Radially Symmetric Solutions of the Navier–Stokes Equation and the Heat Equation in Two Dimensions, **142**, 428–444, 1998.
- J. Nordström and M. H. Carpenter, Boundary and Interface Conditions for High-Order Finite-Difference Methods Applied to the Euler and Navier–Stokes Equations, **148**, 621–645, 1999.
- J. Nordström and M. H. Carpenter, High-Order Finite Difference Methods, Multidimensional Linear Problems, and Curvilinear Coordinates, **173**, 149–174, 2001.
- J. F. Nystrom, High-Order Time-Stable Numerical Boundary Scheme for the Temporally Dependent Maxwell Equations in Two Dimensions, **178**, 290–306, 2002.
- O**
- J. T. Oden, I. Babuška, and C. E. Baumann, A Discontinuous *hp* Finite Element Method for Diffusion Problems, **146**, 491–519, 1998.
- J. T. Oden and S. Prudhomme, Estimation of Modeling Error in Computational Mechanics, **182**, 496–515, 2002.
- J. T. Oden and K. S. Veraganti, Estimation of Local Modeling Error and Goal-Oriented Adaptive Modeling of Heterogeneous Materials. I. Error Estimates and Adaptive Algorithms, **164**, 22–47, 2000.
- H.-S. Oh, H. Kim, and S.-J. Lee, The Numerical Methods for Oscillating Singularities in Elliptic Boundary Value Problems, **170**, 742–763, 2001.
- T. Ohwada, Higher Order Approximation Methods for the Boltzmann Equation, **139**, 1–14, 1998.
- T. Ohwada, On the Construction of Kinetic Schemes, **177**, 156–175, 2002.
- A. Oliveira and A. B. Fortunato, Toward an Oscillation-Free, Mass Conservative, Eulerian–Lagrangian Transport Model, **183**, 142–164, 2002.
- N. Okong’o and J. Bellan, Consistent Boundary Conditions for Multicomponent Real Gas Mixtures Based on Characteristic Waves, **176**, 330–344, 2002.
- C. F. Ollivier-Gooch, Quasi-ENO Schemes for Unstructured Meshes Based on Unlimited Data-Dependent Least-Squares Reconstruction, **133**, 6–17, 1997.
- C. Ollivier-Gooch and M. Van Altena, A High-Order-Accurate Unstructured Mesh Finite-Volume Scheme for the Advection–Diffusion Equation, **181**, 729–752, 2002.
- Y. A. Omelchenko and R. N. Sudan, A 3-D Darwin–EM Hybrid PIC Code for Ion Ring Studies, **133**, 146–159, 1997.
- P. Omnes and P. Louvet, Self-consistent Numerical Simulation of Isotope Separation by Selective Ion Cyclotron Resonance Heating in a Magnetically Confined Plasma, **172**, 326–347, 2001.
- C. W. Oosterlee, A GMRES-Based Plane Smoother in Multigrid to Solve 3D Anisotropic Fluid Flow Problems, **130**, 41–53, 1997.
- C. W. Oosterlee, F. J. Gaspar, T. Washio, and R. Wienands, Multigrid Line Smoothers for Higher Order Upwind Discretizations of Convection-Dominated Problems, **139**, 274–307, 1998.
- P. J. O’Rourke and M. S. Sahota, A Variable Explicit/Implicit Numerical Method for Calculating Advection on Unstructured Meshes, **143**, 312–345, 1998.
- S. Osher, L.-T. Cheng, M. Kang, H. Shim, and Y.-H. Tsai, Geometric Optics in a Phase-Space-Based Level Set and Eulerian Framework, **179**, 622–648, 2002.
- S. Osher and R. P. Fedkiw, Level Set Methods: An Overview and Some Recent Results, **169**, 463–502, 2001.
- S. J. Osher and F. Santosa, Level Set Methods for Optimization Problems Involving Geometry and Constraints. I. Frequencies of a Two-Density Inhomogeneous Drum, **171**, 272–288, 2001.
- S. J. Osher and G. Tryggevason, *PREFACE*, **169**, 249, 2001.
- A. G. Ostrovskii and L. I. Piterbarg, A New Method for Obtaining Velocity and Diffusivity from Time-Dependent Distributions of a Tracer via the Maximum Likelihood Estimator for the Advection–Diffusion Equation, **133**, 340–360, 1997.
- N. F. Otani, Mini Review: Computer Modeling in Cardiac Electrophysiology, **161**, 21–34, 2000.
- C. Othmer, U. Motschmann, and K. H. Glassmeier, Creation of Spatial Charge Separation in Plasmas with Rigorously Charge-Conserving Local Electromagnetic Field Solvers, **180**, 99–109, 2002.
- S. R. Otto and J. P. Denier, Numerical Solution of a Generalized Elliptic Partial Differential Eigenvalue Problem, **156**, 352–359, 1999.
- Y. Özyörük, L. N. Long, and M. G. Jones, Time-Domain Numerical Simulation of a Flow-Impedance Tube, **146**, 29–57, 1998.
- P**
- M. F. Paisley, Multigrid Computation of Stratified Flow over Two-Dimensional Obstacles, **136**, 411–424, 1997.
- M. F. Paisley, Multigrid Solution of the Incompressible Navier–Stokes Equations for Density-Stratified Flow past Three-Dimensional Obstacles, **170**, 785–811, 2001.
- M. F. Paisley and N. M. Bhatti, Comparison of Multigrid Methods for Neutral and Stably Stratified Flows over Two-Dimensional Obstacles, **142**, 581–610, 1998.

- B. J. Palmer and D. R. Rector, Lattice Boltzmann Algorithm for Simulating Thermal Flow in Compressible Fluids, **161**, 1–20, 2000.
- T.-W. Pan and R. Glowinski, Direct Simulation of the Motion of Neutrally Buoyant Circular Cylinders in Plane Poiseuille Flow, **181**, 260–279, 2002.
- M. Pandolfi and D. D’Ambrosio, Numerical Instabilities in Upwind Methods: Analysis and Cures for the “Carbuncle Phenomenon”, **166**, 271–301, 2001.
- M. V. Papalexandris, A. Leonard, and P. E. Dimotakis, Unsplit Schemes for Hyperbolic Conservation Laws with Source Terms in One Space Dimension, **134**, 31–61, 1997.
- B. Parent and J. P. Sislian, The Use of Domain Decomposition in Accelerating the Convergence of Quasihyperbolic Systems, **179**, 140–169, 2002.
- L. Pareschi and R. E. Caflisch, An Implicit Monte Carlo Method for Rarefied Gas Dynamics. I. The Space Homogeneous Case, **154**, 90–116, 1999.
- L. Pareschi, G. Russo, and G. Toscani, Fast Spectral Methods for the Fokker–Planck–Landau Collision Operator, **165**, 216–236, 2000.
- H. M. Park and D. H. Ryu, A Solution Method of Nonlinear Convective Stability Problems in Finite Domains, **170**, 141–160, 2001.
- S. E. Parker, Nearest-Grid-Point Interpolation in Gyrokinetic Particle-in-Cell Simulation, **178**, 520–532, 2002.
- A. N. Parshikov and S. A. Medin, Smoothed Particle Hydrodynamics Using Interparticle Contact Algorithms, **180**, 358–382, 2002.
- A. Pascarelli, U. Piomelli, and G. V. Candler, Multi-Block Large-Eddy Simulations of Turbulent Boundary Layers, **157**, 256–279, 2000.
- M. F. Pasik, D. B. Seidel, and R. W. Lemke, A Modified Perfectly Matched Layer Implementation for Use in Electromagnetic PIC Codes, **148**, 125–132, 1999.
- R. Pasquetti and C. J. Xu, Comments on “Filter-Based Stabilization of Spectral Element Methods”, **182**, 646–650, 2002.
- L. F. Pavarino and T. Warburton, Overlapping Schwarz Methods for Unstructured Spectral Elements, **160**, 298–317, 2000.
- P. Pavlo, G. Vahala, L. Vahala, and M. Soe, Linear Stability Analysis of Thermo-Lattice Boltzmann Models, **139**, 79–91, 1998.
- G. Pelekanos, R. E. Kleinman, and P. M. van den Berg, A Weak Form of the Conjugate Gradient FFT Method for Two-Dimensional Elastodynamics, **160**, 597–611, 2000.
- D. Peng, B. Merriman, S. Osher, H. Zhao, and M. Kang, A PDE-Based Fast Local Level Set Method, **155**, 410–438, 1999.
- J. M. C. Pereira, M. H. Kobayashi, and J. C. F. Pereira, A Fourth-Order-Accurate Finite Volume Compact Method for the Incompressible Navier–Stokes Solutions, **167**, 217–243, 2001.
- B. Perot, Conservation Properties of Unstructured Staggered Mesh Schemes, **159**, 58–89, 2000.
- P.-O. Persson and O. Runborg, Simulation of a Waveguide Filter Using Wavelet-Based Numerical Homogenization, **166**, 361–382, 2001.
- R. E. Peterkin Jr., M. H. Frese, and C. R. Sovinec, Transport of Magnetic Flux in an Arbitrary Coordinate ALE Code, **140**, 148–171, 1998.
- N. A. Petersson, Stability of Pressure Boundary Conditions for Stokes and Navier–Stokes Equations, **172**, 40–70, 2001.
- P. G. Petropoulos, On the Termination of the Perfectly Matched Layer with Local Absorbing Boundary Conditions, **143**, 665–673, 1998.
- P. G. Petropoulos, L. Zhao, and A. C. Cangellaris, A Reflectionless Sponge Layer Absorbing Boundary Condition for the Solution of Maxwell’s Equations with High-Order Staggered Finite Difference Schemes, **139**, 184–208, 1998.
- P. F. Peyrard and P. Villedieu, A Roe Scheme for Ideal MHD Equations on 2D Adaptively Refined Triangular Grids, **150**, 373–393, 1999.
- B. G. Pfrommer, M. Côté, S. G. Louie, and M. L. Cohen, Relaxation of Crystals with the Quasi-Newton Method, **131**, 233–240, 1997.
- B. G. Pfrommer, J. Demmel, and H. Simon, Unconstrained Energy Functionals for Electronic Structure Calculations, **150**, 287–298, 1999.
- R. R. Picard, M. Fitzgerald, and M. J. Brown, Accelerating Convergence in Stochastic Particle Dispersion Simulation Codes, **173**, 231–255, 2001.
- N. A. Pierce and M. B. Giles, Preconditioned Multigrid Methods for Compressible Flow Calculations on Stretched Meshes, **136**, 425–445, 1997.
- B. Piette and W. J. Zakrzewski, Numerical Integration of $(2+1)$ Dimensional PDEs for S^2 Valued Functions, **145**, 359–381, 1998.
- S. B. Pillapakam and P. Singh, A Level-Set Method for Computing Solutions to Viscoelastic Two-Phase Flow, **174**, 552–578, 2001.
- A. Pinelli, A. Vacca, and A. Quarteroni, A Spectral Multidomain Method for the Numerical Simulation of Turbulent Flows, **136**, 546–558, 1997.
- J. Piraux and B. Lombard, A New Interface Method for Hyperbolic Problems with Discontinuous Coefficients: One-Dimensional Acoustic Example, **168**, 227–248, 2001.
- S. Pirozzoli, Conservative Hybrid Compact-WENO Schemes for Shock-Turbulence Interaction, **178**, 81–117, 2002.
- D. Place and P. Mora, The Lattice Solid Model to Simulate the Physics of Rocks and Earthquakes: Incorporation of Friction, **150**, 332–372, 1999.
- L. Plagne and J.-Y. Berthou, Tensorial Basis Spline Collocation Method for Poisson’s Equation, **157**, 419–440, 2000.
- M. Plapp and A. Karma, Multiscale Finite-Difference-Diffusion-Monte-Carlo Method for Simulating Dendritic Solidification, **165**, 592–619, 2000.
- L. Plaskota, G. W. Wasilkowski, and H. Woźniakowski, A New Algorithm and Worst Case Complexity for Feynman–Kac Path Integration, **164**, 335–353, 2000.
- P. Ploumhans, G. S. Winckelmanns, J. K. Salmon, A. Leonard, and M. S. Warren, Vortex Methods for Direct Numerical Simulation of Three-Dimensional Bluff Body Flows: Application to the Sphere at $Re = 300, 500,$ and 1000 , **178**, 427–463, 2002.

- P. Ploumhans and G. S. Winckelmans, Vortex Methods for High-Resolution Simulations of Viscous Flow Past Bluff Bodies of General Geometry, **165**, 354–406, 2000.
- H. Pokharna, M. Mori, and V. H. Ransom, Regularization of Two-Phase Flow Models: A Comparison of Numerical and Differential Approaches, **134**, 282–295, 1997.
- M. Polášek and P. Čárský, Efficient Evaluation of the Matrix Elements of the Coulomb Potential between Plane Waves and Gaussians, **181**, 1–8, 2002.
- S. V. Polstyanko and J.-F. Lee, Two-Level Hierarchical FEM Method for Modeling Passive Microwave Devices, **140**, 400–420, 1998.
- L. M. Popescu, An Extension of Alias Sampling Method for Parametrized Probability Distributions, **160**, 612–622, 2000.
- L. Popken and P. W. Cleary, Comparison of Kinetic Theory and Discrete Element Schemes for Modelling Granular Couette Flows, **155**, 1–25, 1999.
- M. E. Potter, M. Okoniewski, and M. A. Stuchly, Low Frequency Finite Difference Time Domain (FDTD) for Modeling of Induced Fields in Humans Close to Line Sources, **162**, 82–103, 2000.
- A. Povitsky and P. J. Morris, A Higher-Order Compact Method in Space and Time Based on Parallel Implementation of the Thomas Algorithm, **161**, 182–203, 2000.
- K. G. Powell, P. L. Roe, Timur J. Linde, Tamas I. Gombosi, and Darren L. De Zeeuw, A Solution-Adaptive Upwind Scheme for Ideal Magnetohydrodynamics, **154**, 284–309, 1999.
- C. Pozrikidis, A Spectral-Element Method for Particulate Stokes Flow, **156**, 360–381, 1999.
- C. Pozrikidis, Interfacial Dynamics for Stokes Flow, **169**, 250–301, 2001.
- C. Pozrikidis, A Note on the Regularization of the Discrete Poisson–Neumann Problem, **172**, 917–923, 2001.
- L. Prigozhin, Solution of Thin Film Magnetization Problems in Type-II Superconductivity, **144**, 180–193, 1998.
- V. G. Priymak and T. Miyazaki, Accurate Navier–Stokes Investigation of Transitional and Turbulent Flows in a Circular Pipe, **142**, 370–411, 1998.
- R. M. Propp, P. Colella, W. Y. Crutchfield, and M. S. Day, A Numerical Model for Trickle Bed Reactors, **165**, 311–333, 2000.
- A. Prosperetti and H. N. Ögüz, Physalis: A New $o(N)$ Method for the Numerical Simulation of Disperse Systems: Potential Flow of Spheres, **167**, 196–216, 2001.
- R. Prosser and R. S. Cant, On the Use of Wavelets in Computational Combustion, **147**, 337–361, 1998.
- M. M. J. Proot and M. I. Gerritsma, Least-Squares Spectral Elements Applied to the Stokes Problem, **181**, 454–477, 2002.
- B. Protas, A. Styczek, and A. Nowakowski, An Effective Approach to Computation of Forces in Viscous Incompressible Flows, **159**, 231–245, 2000.
- N. Provatas, N. Goldenfeld, and J. Dantzig, Adaptive Mesh Refinement Computation of Solidification Microstructures Using Dynamic Data Structures, **148**, 265–290, 1999.
- E. G. Puckett, A. S. Almgren, J. B. Bell, D. L. Marcus, and W. J. Rider, A High-Order Projection Method for Tracking Fluid Interfaces in Variable Density Incompressible Flows, **130**, 269–282, 1997.
- G. Puckett, Introduction to “A Numerical Method for Solving Incompressible Viscous Flow Problems,” **135**, 115–117, 1997.
- R. K. Puri and J. Aichelin, Simulated Annealing Clusterization Algorithm for Studying the Multifragmentation, **162**, 245–266, 2000.

Q

- Q. Qi and T. L. Geers, Evaluation of the Perfectly Matched Layer for Computational Acoustics, **139**, 166–183, 1998.
- J. Qian and W. W. Symes, Paraxial Eikonal Solvers for Anisotropic Quasi-P Travel Times, **173**, 256–278, 2001.
- J. Qian, G. Tryggvason, and C. K. Law, A Front Tracking Method for the Motion of Premixed Flames, **144**, 52–69, 1998.
- L. Qian and M. Vezza, A Vorticity-Based Method for Incompressible Unsteady Viscous Flows, **172**, 515–542, 2001.
- J. Qiang, R. D. Ryne, S. Habib, and V. Decyk, An Object-Oriented Parallel Particle-in-Cell Code for Beam Dynamics Simulation in Linear Accelerators, **163**, 434–451, 2000.
- Z. S. Qin and J. S. Liu, Multipoint Metropolis Method with Application to Hybrid Monte Carlo, **172**, 827–840, 2001.
- Y. Qiu and C. F. Fischer, Integration by Cell Algorithm for Slater Integrals in a Spline Basis, **156**, 257–271, 1999.
- J. Qiu and C.-W. Shu, On the Construction, Comparison, and Local Characteristic Decomposition for High-Order Central WENO Schemes, **183**, 187–209, 2002.
- Y. Qiu and D. M. Sloan, Numerical Solution of Fisher’s Equation Using a Moving Mesh Method, **146**, 726–746, 1998.

R

- S. Raimondeau and D. G. Vlachos, Low-Dimensional Approximations of Multiscale Epitaxial Growth Models for Microstructure Control of Materials, **160**, 564–576, 2000.
- O. M. Ramahi, Complementary Boundary Operators for Wave Propagation Problems, **133**, 113–128, 1997.
- B. Ramaswamy, S. Krishnamoorthy, and S. W. Joo, Three-Dimensional Simulation of Instabilities and Rivulet Formation in Heated Falling Films, **131**, 70–88, 1997.
- P. W. Rambo, Numerical Heating in Hybrid Plasma Simulations, **133**, 173–180, 1997.
- R. V. Ramos and R. F. Souza, Calculation of the Quantum Entanglement Measure of Bipartite States, Based on Relative Entropy, Using Genetic Algorithms, **175**, 576–583, 2002.
- P. Rasetarinera and M. Y. Hussaini, An Efficient Implicit Discontinuous Spectral Galerkin Method, **172**, 718–738, 2001.

- K. S. Ravichandran, Higher Order KFVS Algorithms Using Compact Upwind Difference Operators, **130**, 161–173, 1997.
- F. H. Read, Improved Extrapolation Technique in the Boundary Element Method to Find the Capacitances of the Unit Square and Cube, **133**, 1–5, 1997.
- J. S. Reese, S. Raimondeau, and D. G. Vlachos, Monte Carlo Algorithms for Complex Surface Reaction Mechanisms: Efficiency and Accuracy, **173**, 302–321, 2001.
- S. Reich, Multiple Time Scales in Classical and Quantum–Classical Molecular Dynamics, **151**, 49–73, 1999.
- S. Reich, Multi-Symplectic Runge–Kutta Collocation Methods for Hamiltonian Wave Equations, **157**, 473–499, 2000.
- R. F. Remis, On the Stability of the Finite-Difference Time-Domain Method, **163**, 249–261, 2000.
- W. Ren and X.-P. Wang, An Iterative Grid Redistribution Method for Singular Problems in Multiple Dimensions, **159**, 246–273, 2000.
- Y. Renardy and M. Renardy, PROST: A Parabolic Reconstruction of Surface Tension for the Volume-of-Fluid Method, **183**, 400–421, 2002.
- M. Renardy, Y. Renardy, and J. Li, Numerical Simulation of Moving Contact Line Problems Using a Volume-of-Fluid Method, **171**, 243–263, 2001.
- F. Renaud and S. Gauthier, A Dynamical Pseudospectral Domain Decomposition Technique: Application to Viscous Compressible Flows, **131**, 89–108, 1997.
- S. C. Rennich and S. K. Lele, Numerical Method for Incompressible Vortical Flows with Two Unbounded Directions, **137**, 101–129, 1997.
- P. Ricci, G. Lapenta, and J. U. Brackbill, A Simplified Implicit Maxwell Solver, **183**, 117–141, 2002.
- W. J. Rider, Revisiting Wall Heating, **162**, 395–410, 2000.
- W. J. Rider and D. A. Knoll, Time Step Size Selection for Radiation Diffusion Calculations, **152**, 790–795, 1999.
- W. J. Rider, D. A. Knoll, and G. L. Olson, A Multigrid Newton–Krylov Method for Multimaterial Equilibrium Radiation Diffusion, **152**, 164–191, 1999.
- W. J. Rider and D. B. Kothe, Reconstructing Volume Tracking, **141**, 112–152, 1998.
- W. J. Rider and L. G. Margolin, Simple Modifications of Monotonicity-Preserving Limiters, **174**, 473–488, 2001.
- M. A. Rieffel, A Method for Estimating the Computational Requirements of DSMC Simulations, **149**, 95–113, 1999.
- R. H. Rietdijk, Notes on Big Ray Tracing, **148**, 149–168, 1999.
- E. Rivoalen and S. Huberson, Numerical Simulation of Axisymmetric Viscous Flows by Means of a Particle Method, **152**, 1–31, 1999.
- E. Rivoalen and S. Huberson, The Particle Strength Exchange Method Applied to Axisymmetric Viscous Flows, **168**, 519–526, 2001.
- S. Rjasanow, T. Schreiber, and W. Wagner, Reduction of the Number of Particles in the Stochastic Weighted Particle Method for the Boltzmann Equation, **145**, 382–405, 1998.
- T. M. Roberts, Time-Domain Deconvolution Removes the Effects of Near-Field Scatterers, **149**, 293–305, 1999.
- I. Robertson and S. Sherwin, Free-Surface Flow Simulation Using *hp*/Spectral Elements, **155**, 26–53, 1999.
- P. L. Roe, Approximate Riemann Solvers, Parameter Vectors, and Difference Schemes, **135**, 250–258, 1997.
- T. D. Rognlien, X. Q. Xu, and A. C. Hindmarsh, Application of Parallel Implicit Methods to Edge-Plasma Numerical Simulations, **175**, 249–268, 2002.
- A. Y. Rom, Quasiparticles Density of States and the Scattering Rate in Ideal Type II Superconductor by a Time-dependent Approach, **135**, 76–82, 1997.
- A. M. Roma, C. S. Peskin, and M. J. Berger, An Adaptive Version of the Immersed Boundary Method, **153**, 509–534, 1999.
- V. Romano, 2D Simulation of a Silicon MESFET with a Nonparabolic Hydrodynamical Model Based on the Maximum Entropy Principle, **176**, 70–92, 2002.
- S. Rombouts and K. Heyde, An Accurate and Efficient Algorithm for the Computation of the Characteristic Polynomial of a General Square Matrix, **140**, 453–458, 1998.
- A. H. Romero and J. M. Sancho, Generation of Short and Long Range Temporal Correlated Noises, **156**, 1–11, 1999.
- C.-C. Rossow, A Flux-Splitting Scheme for Compressible and Incompressible Flows, **164**, 104–122, 2000.
- C. W. Rowley and T. Colonius, Discretely Nonreflecting Boundary Conditions for Linear Hyperbolic Systems, **157**, 500–538, 2000.
- G. Russo and P. Smereka, A Remark on Computing Distance Functions, **163**, 51–67, 2000.
- S. J. Ruuth, Efficient Algorithms for Diffusion-Generated Motion by Mean Curvature, **144**, 603–625, 1998.
- S. J. Ruuth, A Diffusion-Generated Approach to Multiphase Motion, **145**, 166–192, 1998.
- S. J. Ruuth and B. Merriman, Convolution–Thresholding Methods for Interface Motion, **169**, 678–707, 2001.
- S. J. Ruuth, B. Merriman, and S. Osher, Convolution-Generated Motion as a Link between Cellular Automata and Continuum Pattern Dynamics, **151**, 836–861, 1999.
- S. J. Ruuth, B. Merriman, and S. Osher, A Fixed Grid Method for Capturing the Motion of Self-Intersecting Wavefronts and Related PDEs, **163**, 1–21, 2000.
- V. S. Ryaben’kii, S. V. Tsynkov, and V. I. Turchaninov, Global Discrete Artificial Boundary Conditions for Time-Dependent Wave Propagation, **174**, 712–758, 2001.
- T. Rylander and A. Bondeson, Stability of Explicit–Implicit Hybrid Time-Stepping Schemes for Maxwell’s Equations, **179**, 426–438, 2002.

S

- C. Sabbah and R. Pasquetti, A Divergence-Free Multidomain Spectral Solver of the Navier–Stokes Equations in Geometries of High Aspect Ratio, **139**, 359–379, 1998.
- H. Safouhi, Efficient and Rapid Numerical Evaluation of the Two-Electron, Four-Center Coulomb Integrals Using Nonlinear Transformations and Useful Properties of Sine and Bessel Functions, **176**, 1–19, 2002.
- H. Safouhi, The *HD* and *H \bar{D}* Methods for Accelerating the Convergence of Three-Center Nuclear Attraction and Four-Center Two-Electron Coulomb Integrals over *B* Functions and Their Convergence Properties, **165**, 473–495, 2000.

- H. Safouhi and P. E. Hoggan, Efficient and Rapid Evaluation of Three-Center Two Electron Coulomb and Hybrid Integrals Using Nonlinear Transformations, **155**, 331–347, 1999.
- T. Saito, Numerical Analysis of Dusty-Gas Flows, **176**, 129–144, 2002.
- K. Sakai and G. S. Zhang, A Numerical Scheme for Transport Equations with Spatially Distributed Coefficients Based on Locally Exact Difference Method, **134**, 332–341, 1997.
- A. Salazar, A. Campo, and B. Morrone, On Approximate Solutions for Unsteady Conduction in Slabs with Uniform Heat Flux, **144**, 402–422, 1998.
- R. Sampath and N. Zabarar, Numerical Study of Convection in the Directional Solidification of a Binary Alloy Driven by the Combined Action of Buoyancy, Surface Tension, and Electromagnetic Forces, **168**, 384–411, 2001.
- J. H. Samson and G. A. Evans, Symmetry Reduction of Fourier Kernels, **142**, 109–122, 1998.
- R. Samtaney, Computational Methods for Self-Similar Solutions of the Compressible Euler Equations, **132**, 327–345, 1997.
- R. Sanchez, S. P. Hirshman, J. C. Whitson, and A. S. Ware, COBRA: An Optimized Code for Fast Analysis of Ideal Ballooning Stability of Three-Dimensional Magnetic Equilibria, **161**, 576–588, 2000.
- J. Sanchez, F. Marques, and J. M. Lopez, A Continuation and Bifurcation Technique for Navier–Stokes Flows, **180**, 78–98, 2002.
- R. Sánchez and A. Šali, Comparative Protein Structure Modeling in Genomics, **151**, 388–401, 1999.
- R. Sanders, E. Morano, and M.-C. Druguet, Multidimensional Dissipation for Upwind Schemes: Stability and Applications to Gas Dynamics, **145**, 511–537, 1998.
- N. D. Sandham, Q. Li, and H. C. Yee, Entropy Splitting for High-Order Numerical Simulation of Compressible Turbulence, **178**, 307–322, 2002.
- A. Sandu, Positive Numerical Integration Methods for Chemical Kinetic Systems, **170**, 589–602, 2001.
- A. Sandu and T. Schlick, Masking Resonance Artifacts in Force-Splitting Methods for Biomolecular Simulations by Extrapolative Langevin Dynamics, **151**, 74–113, 1999.
- R. Saurel and R. Abgrall, A Multiphase Godunov Method for Compressible Multifluid and Multiphase Flows, **150**, 425–467, 1999.
- J. A. Scales and E. S. Van Vleck, Lyapunov Exponents and Localization in Randomly Layered Media, **133**, 27–42, 1997.
- R. Scardovelli and S. Zaleski, Analytical Relations Connecting Linear Interfaces and Volume Fractions in Rectangular Grids, **164**, 228–237, 2000.
- T. Schlick, Computational Molecular Biophysics Today: A Confluence of Methodological Advances and Complex Biomolecular Applications, **151**, 1–8, 1999.
- T. Schlick, M. Mandziuk, R. D. Skeel, and K. Srinivas, Nonlinear Resonance Artifacts in Molecular Dynamics Simulations, **140**, 1–29, 1998.
- T. Schlick, R. D. Skeel, A. T. Brunger, L. V. Kalé, J. A. Board, Jr., J. Hermans, and K. Schulten, Algorithmic Challenges in Computational Molecular Biophysics, **151**, 9–48, 1999.
- F. Schmidt, T. Friese, and D. Yevick, Transparent Boundary Conditions for Split-Step Padé Approximations of the One-Way Helmholtz Equation, **170**, 696–719, 2001.
- D. P. Schmidt and C. J. Rutland, A New Droplet Collision Algorithm, **164**, 62–80, 2000.
- M. Schmidt, D. Uhrlandt, and R. Winkler, Self-Consistent Description of Radial Space-Charge Confinement in DC Column Plasmas, **168**, 26–46, 2001.
- F. Schmidt, and D. Yevick, Discrete Transparent Boundary Conditions for Schrödinger-Type Equations, **134**, 96–107, 1997.
- D. D. Schnack, I. Lottati, Z. Mikić, and P. Satyanarayana, A Finite-Volume Algorithm for Three-Dimensional Magnetohydrodynamics on an Unstructured, Adaptive Grid in Axially Symmetric Geometry, **140**, 71–121, 1998.
- T. Schneider, N. Botta, K. J. Geratz, and R. Klein, Extension of Finite Volume Compressible Flow Solvers to Multi-dimensional, Variable Density Zero Mach Number Flows, **155**, 248–286, 1999.
- G. Schrimpf, J. Schneider, H. Stamm-Wilbrandt, and G. Dueck, Record Breaking Optimization Results Using the Ruin and Recreate Principle, **159**, 139–171, 2000.
- K. W. Schulz and Y. Kallinderis, Unsteady Flow Structure Interaction for Incompressible Flows Using Deformable Hybrid Grids, **143**, 569–597, 1998.
- J. W. Schumer and J. P. Holloway, Vlasov Simulations Using Velocity-Scaled Hermite Representations, **144**, 626–661, 1998.
- Ch. Schütte, A. Fischer, W. Huisinga, and P. Deuffhard, A Direct Approach to Conformational Dynamics Based on Hybrid Monte Carlo, **151**, 146–168, 1999.
- B. Yu. Scobelev, On the Question about the Sufficiency of the von Neumann Criterion for Stability of Difference Schemes, **143**, 278–282, 1998.
- B. Yu. Scobelev and E. V. Vorozhtsov, Sufficient Stability Criteria and Uniform Stability of Difference Schemes, **165**, 717–751, 2000.
- G. Segal, K. Vuik, and F. Vermolen, A Conserving Discretization for the Free Boundary in a Two-Dimensional Stefan Problem, **141**, 1–21, 1998.
- A. Seidl and M. Takai, Accuracy Problems in Simulation of Field Emitter Devices Using Finite Elements, **166**, 159–164, 2001.
- A. J. Semtner, Introduction to “A Numerical Method for the Study of the Circulation of the World Ocean,” **135**, 149–153, 1997.
- R. Sen, Closed-Form Expressions for Certain Induction Integrals Involving Jacobi and Chebyshev Polynomials, **156**, 393–398, 1999.
- I. Senocak and W. Shyy, A Pressure-Based Method for Turbulent Cavitating Flow Computations **176**, 363–383, 2002.
- J. Sesterhenn, B. Müller, and H. Thomann, On the Cancellation Problem in Calculating Compressible Low Mach Number Flows, **151**, 597–615, 1999.
- J. A. Sethian, Evolution, Implementation, and Application of Level Set and Fast Marching Methods for Advancing Fronts, **169**, 503–555, 2001.

- J. A. Sethian and A. Wiegmann, Structural Boundary Design via Level Set and Immersed Interface Methods, **163**, 489–528, 2000.
- W. Sha, K. Nakabayashi, and H. Ueda, An Accurate Second-Order Approximation Factorization Method for Time-Dependent Incompressible Navier–Stokes Equations in Spherical Polar Coordinates, **142**, 47–66, 1998.
- J. N. Shadid, R. S. Tuminaro, and H. F. Walker, An Inexact Newton Method for Fully Coupled Solution of the Navier–Stokes Equations with Heat and Mass Transport, **137**, 155–185, 1997.
- J. S. Shang, High-Order Compact-Difference Schemes for Time-Dependent Maxwell Equations, **153**, 312–333, 1999.
- K. Shariff and R. D. Moser, Two-Dimensional Mesh Embedding for B-Spline Methods, **145**, 471–488, 1998.
- M. Shashkov, B. Swartz, and B. Wendroff, Local Reconstruction of a Vector Field from its Normal Components on the Faces of Grid Cells, **139**, 406–409, 1998.
- M. Shashkov and B. Wendroff, A Composite Scheme for Gas Dynamics in Lagrangian Coordinates, **150**, 502–517, 1999.
- S. G. Sheffer, L. Martinelli, and A. Jameson, An Efficient Multigrid Algorithm for Compressible Reactive Flows, **144**, 484–516, 1998.
- J. Shen, T. T. Medjo, and S. Wang, On a Wind-Driven, Double-Gyre, Quasi-Geostrophic Ocean Model: Numerical Simulations and Structural Analysis, **155**, 387–409, 1999.
- W. Z. Shen and J. N. Sørensen, Quasi-3D Navier–Stokes Model for a Rotating Airfoil, **150**, 518–548, 1999.
- H. T. Shen, J. Su, and L. Liu, SPH Simulation of River Ice Dynamics, **165**, 752–770, 2000.
- Q. Sheng, A. Q. M. Khaliq, and E. A. Al-Said, Solving the Generalized Nonlinear Schrödinger Equation via Quartic Spline Approximation, **166**, 400–417, 2001.
- R. Shepard, A. F. Wagner, J. L. Tilton, and M. Minkoff, The Subspace Projected Approximate Matrix (SPAM) Modification of the Davidson Method, **172**, 472–514, 2001.
- S. J. Sherwin and M. Casarin, Low-Energy Basis Preconditioning for Elliptic Structured Solvers Based on Unstructured Spectral *h/p* Element Discretization, **171**, 394–417, 2001.
- A. I. Shestakov, J. L. Milovich, and M. K. Prasad, Combining Cell- and Point-Centered Methods in 3D, Unstructured-Grid Radiation–Hydrodynamic Codes, **170**, 81–111, 2001.
- T. W. H. Sheu, S. K. Wang, and R. K. Lin, An Implicit Scheme for Solving the Convection–Diffusion–Reaction Equation in Two Dimensions, **164**, 123–142, 2000.
- T. W. H. Sheu, S. K. Wang, and S. F. Tsai, Development of a High-resolution Scheme for a Multi-dimensional Advection–Diffusion Equation, **144**, 1–16, 1998.
- J. Shi, C. Hu, and C.-W. Shu, A Technique of Treating Negative Weights in WENO Schemes, **175**, 108–127, 2002.
- S. Shin and D. Juric, Modeling Three-Dimensional Multiphase Flow Using a Level Contour Reconstruction Method for Front Tracking without Connectivity, **180**, 427–470, 2002.
- C.-W. Shu, Preface to the Republication of “Uniformly High Order Essentially Non-oscillatory Schemes, III,” by Harten, Engquist, Osher, and Chakravarthy, **131**, 1–2, 1997.
- C. Shu, W. Chen, and H. Du, Free Vibration Analysis of Curvilinear Quadrilateral Plates by the Differential Quadrature Method, **163**, 452–466, 2000.
- K.-M. Shyue, An Efficient Shock-Capturing Algorithm for Compressible Multicomponent Problems, **142**, 208–242, 1998.
- K.-M. Shyue, A Fluid-Mixture Type Algorithm for Compressible Multicomponent Flow with van der Waals Equation of State, **156**, 43–88, 1999.
- K.-M. Shyue, A Fluid-Mixture Type Algorithm for Compressible Multicomponent Flow with Mie–Grüneisen Equation of State, **171**, 678–707, 2001.
- C. E. Siewert, A Discrete-Ordinates Solution for Heat Transfer in a Plane Channel, **152**, 251–263, 1999.
- C. E. Siewert, Poiseuille and Thermal-Creep Flow in a Cylindrical Tube, **160**, 470–480, 2000.
- H. Sigurgeirsson, A. Stuart, and W.-L. Wan, Algorithms for Particle-Field Simulations with Collisions, **172**, 766–807, 2001.
- N. R. S. Simons, G. E. Bridges, and M. Cuhaci, A Lattice Gas Automaton Capable of Modeling Three-Dimensional Electromagnetic Fields, **151**, 816–835, 1999.
- T. E. Simos, P-stable Exponentially Fitted Methods for the Numerical Integration of the Schrödinger Equation, **148**, 305–321, 1999.
- T. E. Simos and Ch. Tsitouras, AP-Stable Eighth-Order Method for the Numerical Integration of Periodic Initial-Value Problems, **130**, 123–128, 1997.
- R. D. Skeel, Comments on “Numerical Instability due to Varying Time Steps in Explicit Wave Propagation and Mechanics Calculations” by Joseph P. Wright, **145**, 758–759, 1998.
- A. C. Skeldon, K. A. Cliffe, and D. S. Riley, Grid Design for the Computation of a Hexagonroll Interaction Using a Finite Element Method, **133**, 18–36, 1997.
- B. M. Slepchenko, J. C. Schaff, and Y. S. Choi, Numerical Approach to Fast Reactions in Reaction-Diffusion Systems: Application to Buffered Calcium Waves in Bistable Models, **162**, 186–218, 2000.
- S. A. Slimon, M. C. Soteriou, and D. W. Davis, Development of Computational Aeroacoustics Equations for Subsonic Flows Using a Mach Number Expansion Approach, **159**, 377–406, 2000.
- D. N. Slinn and J. J. Riley, A Model for the Simulation of Turbulent Boundary Layers in an Incompressible Stratified Flow, **144**, 550–602, 1998.
- R. W. Smith, AUSM(ALE): A Geometrically Conservative Arbitrary Lagrangian–Eulerian Flux Splitting Scheme, **150**, 268–286, 1999.
- S. W. Smith, C. K. Hall, and B. D. Freeman, Molecular Dynamics for Polymeric Fluids Using Discontinuous Potentials, **134**, 16–30, 1997.
- P. K. Smolarkiewicz and L. G. Margolin, MPDATA: A Finite-Difference Solver for Geophysical Flows, **140**, 459–480, 1998.
- M. V. Smolysky, Long Time-Step Particle Pushing in Drift Approximation without Orbit Averaging, **145**, 41–60, 1998.

- D. M. Snider, An Incompressible Three-Dimensional Multi-phase Particle-in-Cell Model for Dense Particle Flows, **170**, 523–549, 2001.
- I. V. Sokolov, E. V. Timofeev, J.-i. Sakai, and K. Takayama, Artificial Wind—A New Framework to Construct Simple and Efficient Upwind Shock-Capturing Schemes, **181**, 354–393, 2002.
- I. V. Sokolov, H.-M. Zhang, and J. I. Sakai, Simple and Efficient Godunov Scheme for Computational Relativistic Gas Dynamics, **172**, 209–234, 2001.
- E. Sonnendrücker, J. Roche, P. Bertrand, and A. Ghizzo, The Semi-Lagrangian Method for the Numerical Resolution of the Vlasov Equation, **149**, 201–220, 1999.
- C. Soria, F. Pontiga, and A. Castellanos, Particle-in-Cell Simulation of Electrical Gas Discharges, **171**, 47–78, 2001.
- F. Sotiropoulos and G. Constantinescu, Pressure-Based Residual Smoothing Operators for Multistage Pseudocompressibility Algorithms, **133**, 129–145, 1997.
- M. Spivack and D. E. Reeve, Recovery of a Variable Coefficient in a Coastal Evolution Equation, **151**, 585–596, 1999.
- M. Spivack and D. E. Reeve, Source Reconstruction in a Coastal Evolution Equation, **161**, 169–181, 2000.
- B. Sportisse, An Analysis of Operator Splitting Techniques in the Stiff Case, **161**, 140–168, 2000.
- B. Sportisse and R. Djouad, Reduction of Chemical Kinetics in Air Pollution Modeling, **164**, 354–376, 2000.
- W. F. Spitz and P. N. Swarztrauber, A Performance Comparison of Associated Legendre Projections, **168**, 339–355, 2001.
- W. F. Spitz, M. A. Taylor, and P. N. Swarztrauber, Fast Shallow-Water Equation Solvers in Latitude-Longitude Coordinates, **145**, 432–444, 1998.
- Q. Spreiter and M. Walter, Classical Molecular Dynamics Simulation with the Velocity Verlet Algorithm at Strong External Magnetic Fields, **152**, 102–119, 1999.
- K. Srinivasan and S. G. Rubin, Solution-Based Grid Adaptation through Segmented Multigrid Domain Decomposition, **136**, 467–493, 1997.
- R. K. Srivastava, D. S. McRae, and M. T. Odman, An Adaptive Grid Algorithm for Air-Quality Modeling, **165**, 437–472, 2000.
- D. Stanescu and W. G. Habashi, $2N$ -Storage Low Dissipation and Dispersion Runge-Kutta Schemes for Computational Acoustics, **143**, 674–681, 1998.
- J. Steelant, E. Dick, and S. Pattijn, Analysis of Robust Multigrid Methods for Steady Viscous Low Mach Number Flows, **136**, 603–628, 1997.
- J. Steinhoff, M. Fan, and L. Wang, A New Eulerian Method for the Computation of Propagating Short Acoustic and Electromagnetic Pulses, **157**, 683–706, 2000.
- Y. Stiriba, A Nonlinear Flux Split Method for Hyperbolic Conservation Laws, **176**, 20–39, 2002.
- J. M. Stockie and S. I. Green, Simulating the Motion of Flexible Pulp Fibres Using the Immersed Boundary Method, **147**, 147–165, 1998.
- J. M. Stockie and B. R. Wetton, Analysis of Stiffness in the Immersed Boundary Method and Implications for Time-Stepping Schemes, **154**, 41–64, 1999.
- M. Storti, J. D'Elia, and S. Idelsohn, Algebraic Discrete Non-local (DNL) Absorbing Boundary Condition for the Ship Wave Resistance Problem, **146**, 570–602, 1998.
- J. Strain, Fast Adaptive 2D Vortex Methods, **132**, 108–122, 1997.
- J. Strain, Semi-Lagrangian Methods for Level Set Equations, **151**, 498–533, 1999.
- J. Strain, Tree Methods for Moving Interfaces, **151**, 616–648, 1999.
- J. Strain, Fast Tree-Based Redistancing for Level Set Computations, **152**, 664–686, 1999.
- J. Strain, A Fast Modular Semi-Lagrangian Method for Moving Interfaces, **161**, 512–536, 2000.
- J. Strain, A Fast Semi-Lagrangian Contouring Method for Moving Interfaces, **170**, 373–394, 2001.
- B. Straughan, Surface-Tension-Driven Convection in a Fluid Overlying a Porous Layer, **170**, 320–337, 2001.
- H. R. Strauss and D. W. Longcope, An Adaptive Finite Element Method for Magnetohydrodynamics, **147**, 318–336, 1998.
- J. H. Strickland and R. S. Baty, Modification of the Carrier, Greengard, and Rokhlin FMM for Independent Source and Target Fields, **142**, 123–128, 1998.
- G. R. Stuhne and W. R. Peltier, New Icosahedral Grid-Point Discretizations of the Shallow Water Equations on the Sphere, **148**, 23–58, 1999.
- B. Stupfel, A Hybrid Finite Element and Integral Equation Domain Decomposition Method for the Solution of the 3-D Scattering Problem, **172**, 451–471, 2001.
- M. Su, K. Xu, and M. S. Ghidaoui, Low-Speed Flow Simulation by the Gas-Kinetic Scheme, **150**, 17–39, 1999.
- S. Succi, H. Chen, C. Teixeira, G. Bella, A. De Maio, and K. Molvig, An Integer Lattice Realization of a Lax Scheme for Transport Processes in Multiple Component Fluid Flows, **152**, 493–516, 1999.
- D. M. Summers, A Representation of Bounded Viscous Flow Based on Hodge Decomposition of Wall Impulse, **158**, 28–50, 2000.
- Q. Sun and I. D. Boyd, A Direct Simulation Method for Subsonic, Microscale Gas Flows, **179**, 400–425, 2002.
- M. Sun and K. Takayama, Conservative Smoothing on an Adaptive Quadrilateral Grid, **150**, 143–180, 1999.
- C. Sun, Simulations of Compressible Flows with Strong Shocks by an Adaptive Lattice Boltzmann Model, **161**, 70–84, 2000.
- A. Suresh and H. T. Huynh, Accurate Monotonicity-Preserving Schemes with Runge-Kutta Time Stepping, **136**, 83–99, 1997.
- R. F. Susan-Resiga and H. M. Atassi, A Domain Decomposition Method for the Exterior Helmholtz Problem, **147**, 388–401, 1998.
- M. Sussman, A. S. Almgren, J. B. Bell, P. Colella, L. H. Howell, and M. L. Welcome, An Adaptive Level Set Approach for Incompressible Two-Phase Flows, **148**, 81–124, 1999.
- M. Sussman and E. G. Puckett, A Coupled Level Set and Volume-of-Fluid Method for Computing 3D and Axisymmetric Incompressible Two-Phase Flows, **162**, 301–337, 2000.
- A. T. Suzuki and A. G. M. Schmidt, Loop Integrals in Three Outstanding Gauges: Feynman, Light-Cone, and Coulomb, **168**, 207–218, 2001.

- A. Suzuki, T. Takizuka, K. Shimizu, N. Hayashi, A. Hatayama, and M. Ogasawara, An Implicit Monte Carlo Method for Simulation of Impurity Transport in Divertor Plasma, **131**, 193–198, 1997.
- R. C. Swanson, R. Radespiel, and E. Turkel, On Some Numerical Dissipation Schemes, **147**, 518–544, 1998.
- B. Swartz, Good Neighborhoods for Multidimensional Van Leer Limiting, **154**, 237–241, 1999.
- P. N. Swarztrauber and W. F. Spitz, Generalized Discrete Spherical Harmonic Transforms, **159**, 213–230, 2000.
- I. V. Sytine, D. H. Porter, P. R. Woodward, S. W. Hodson, and K.-H. Winkler, Convergence Tests for the Piecewise Parabolic Method and Navier–Stokes Solutions for Homogeneous Compressible Turbulence, **158**, 225–238, 2000.
- J. Szumbarski and J. M. Floryan, A Direct Spectral Method for Determination of Flows over Corrugated Boundaries, **153**, 378–402, 1999.
- T**
- S. Taddei, Finite Interpolation in Green Function Deterministic Numerical Methods, **134**, 62–74, 1997.
- C. H. Tai, D. C. Chiang, and Y. P. Su, Explicit Time Marching Methods for the Time-Dependent Euler Computations, **130**, 191–202, 1997.
- Y. C. Tai, S. Noelle, J. M. N. T. Gray, and K. Hutter, Shock-Capturing and Front-Tracking Methods for Granular Avalanches, **175**, 269–301, 2002.
- P. L. Tallec and F. Mallinger, Coupling Boltzmann and Navier–Stokes Equations by Half Fluxes, **136**, 51–67, 1997.
- C. K. W. Tam, L. Auriault, and F. Cambuli, Perfectly Matched Layer as an Absorbing Boundary Condition for the Linearized Euler Equations in Open and Ducted Domains, **144**, 213–234, 1998.
- C. K. W. Tam and K. A. Kurbatskii, A Wavenumber Based Extrapolation and Interpolation Method for Use in Conjunction with High-Order Finite Difference Schemes, **157**, 588–617, 2000.
- A. Tamura, K. Kikuchi, and T. Takahashi, Residual Cutting Method for Elliptic Boundary Value Problems: Application to Poisson’s Equation, **137**, 247–264, 1997.
- Z. Tan, D. Wilson, and P. L. Varghese, The Mass-Damped Riemann Problem and the Aerodynamic Surface Force Calculation for an Accelerating Body, **131**, 48–53, 1997.
- H. S. Tang and F. Sotiropoulos, A Second-Order Godunov Method for Wave Problems in Coupled Solid–Water–Gas Systems, **151**, 790–815, 1999.
- H.-Z. Tang and K. Xu, A High-Order Gas-Kinetic Method for Multidimensional Ideal Magnetohydrodynamics, **165**, 69–88, 2000.
- J. Tausch and J. Butler, Floquet Multipliers of Periodic Waveguides via Dirichlet-to-Neumann Maps, **159**, 90–102, 2000.
- S. J. Tavener and K. A. Cliffe, Two-Fluid Marangoni–Bénard Convection with a Deformable Interface, **182**, 277–300, 2002.
- M. Taylor, J. Tribbia, and M. Iskandarani, The Spectral Element Method for the Shallow Water Equations on the Sphere, **130**, 92–108, 1997.
- J. Teixeira, Stable Schemes for Partial Differential Equations: The One-Dimensional Diffusion Equation, **153**, 403–419, 1999.
- M. Terracol, P. Sagaut, and C. Basdevant, A Multilevel Algorithm for Large-Eddy Simulation of Turbulent Compressible Flows, **167**, 439–474, 2001.
- D. Thangaraj and A. Nathan, A Rotated Monotone Difference Scheme for the Two-Dimensional Anisotropic Drift-Diffusion Equation, **145**, 445–461, 1998.
- I. Thomas and T. Sonar, On a Second Order Residual Estimator for Numerical Schemes for Nonlinear Hyperbolic Conservation Laws, **171**, 227–242, 2001.
- J. Thompson, Introduction to “Numerical Solution of the Quasilinear Poisson Equation in a Nonuniform Triangle Mesh,” **135**, 126–127, 1997.
- J. Thuburn and T. W. N. Haine, Adjoints of Nonoscillatory Advection Schemes, **171**, 616–631, 2001.
- M. D. Tidriri, Preconditioning Techniques for the Newton-Krylov Solution of Compressible Flows, **132**, 51–61, 1997.
- A. Timonov and M. V. Kliibanov, An Efficient Algorithm for Solving the Inverse Problem of Locating the Interfaces Using the Frequency Sounding Data, **183**, 422–437, 2002.
- I. Tiselj and S. Petelin, Modelling of Two-Phase Flow with Second-Order Accurate Scheme, **136**, 503–521, 1997.
- S. Tiwari, Coupling of the Boltzmann and Euler Equations with Automatic Domain Decomposition, **144**, 710–726, 1998.
- Y. Todo and T. Sato, A Particle Algorithm for Linear Kinetic Analysis in Tokamak Plasmas, **141**, 37–45, 1998.
- S. Toledo and E. Rabani, Very Large Electronic Structure Calculations Using an Out-of-Core Filter-Diagonalization Method, **180**, 256–269, 2002.
- M. A. Tolstykh, Vorticity-Divergence Semi-Lagrangian Shallow-Water Model of the Sphere Based on Compact Finite Differences, **179**, 180–200, 2002.
- A. I. Tolstykh and E. N. Chigirev, On Thin Shear Layers Numerical Simulation, **166**, 152–158, 2001.
- A. I. Tolstykh and M. V. Lipavskii, On Performance of Methods with Third- and Fifth-Order Compact Upwind Differencing, **140**, 205–232, 1998.
- A. G. Tomboulides and S. A. Orszag, A Quasi-two-dimensional Benchmark Problem for Low Mach Number Compressible Codes, **146**, 691–706, 1998.
- M. F. Tome, A. Castelo, J. Murakami, J. A. Cuminato, R. Minghim, M. C. F. Oliveira, N. Mangiacchi, and S. McKee, Numerical Simulation of Axisymmetric Free Surface Flows, **157**, 441–472, 2000.
- H. Tomita, M. Satoh, and K. Goto, An Optimization of the Icosahedral Grid Modified by Spring Dynamics, **183**, 307–331, 2002.
- H. Tomita, M. Tsugawa, M. Satoh, and K. Goto, Shallow Water Model on a Modified Icosahedral Geodesic Grid by Using Spring Dynamics, **174**, 579–613, 2001.
- D. J. Torres and J. U. Brackbill, The Point-Set Method: Front-Tracking without Connectivity, **165**, 620–644, 2000.
- G. Tóth, The LASY Preprocessor and its Application to General Multidimensional Codes, **138**, 981–990, 1997.
- G. Tóth, Conservative and Orthogonal Discretization for the Lorentz Force, **182**, 346–354, 2002.

- G. Tóth and P. L. Roe, Divergence- and Curl-Preserving Prolongation and Restriction Formulas, **180**, 736–750, 2002.
- G. Tóth, The $\nabla \cdot \mathbf{B} = 0$ Constraint in Shock-Capturing Magnetohydrodynamics Codes, **161**, 605–652, 2000.
- I. Tóth, A Weak Formulation of Roe's Approximate Riemann Solver, **102**, 360–373, 1992.
- L. Tourrette, Artificial Boundary Conditions for the Linearized Compressible Navier–Stokes Equations, **137**, 1–37, 1997.
- L. Tourrette, Artificial Boundary Conditions for the Linearized Compressible Navier–Stokes Equations. II. The Discrete Approach, **144**, 151–179, 1998.
- Q. H. Tran and B. Scheurer, High-Order Monotonicity-Preserving Compact Schemes for Linear Scalar Advection on 2-D Irregular Meshes, **175**, 454–486, 2002.
- D. P. Trebotich and P. Colella, A Projection Method for Incompressible Viscous Flow on Moving Quadrilateral Grids, **166**, 191–217, 2001.
- J. Trujillo and G. E. Karniadakis, A Penalty Method for the Vorticity–Velocity Formulation, **149**, 32–58, 1999.
- G. Tryggvason, B. Bunner, A. Esmaeeli, D. Juric, N. Al-Rawahi, W. Tauber, J. Han, S. Nas, and Y.-J. Jan, A Front-Tracking Method for the Computations of Multiphase Flow, **169**, 708–759, 2001.
- Y.-h. R. Tsai, Rapid and Accurate Computation of the Distance Function Using Grids, **178**, 175–195, 2002.
- K. L. Tse and J. R. Chasnov, A Fourier–Hermite Pseudospectral Method for Penetrative Convection, **142**, 489–505, 1998.
- R. S. Tuminaro, H. F. Walker, and J. N. Shadid, On Backtracking Failure in Newton–GMRES Methods with a Demonstration for the Navier–Stokes Equations, **180**, 549–558, 2002.
- C. J. Tymczak, A. M. N. Niklasson, and H. Röder, Separable and Nonseparable Multiwavelets in Multiple Dimensions, **175**, 363–397, 2002.
- S. Tzivion, T. G. Reisin, and Z. Levin, A Numerical Solution of the Kinetic Collection Equation Using High Spectral Grid Resolution: A Proposed Reference, **148**, 527–544, 1999.
- S. Tzivion, T. G. Reisin, and Z. Levin, A New Formulation of the Spectral Multi-moment Method for Calculating the Kinetic Collection Equation: More Accuracy with Fewer Bins, **171**, 418–422, 2001.
- Y. Y. Azmy, Unconditionally Stable and Robust Adjacent-Cell Diffusive Preconditioning of Weighted-Difference Particle Transport Methods Is Impossible, **182**, 213–233, 2002.
- U**
- O. Ubbink and R. I. Issa, A Method for Capturing Sharp Fluid Interfaces on Arbitrary Meshes, **153**, 26–50, 1999.
- H. S. Udaykumar, H.-C. Kan, W. Shyy, and R. Tran-Son-Tay, Multiphase Dynamics in Arbitrary Geometries on Fixed Cartesian Grids, **137**, 366–405, 1997.
- H. S. Udaykumar, R. Mittal, P. Rampungoon, and A. Khanna, A Sharp Interface Cartesian Grid Method for Simulating Flows with Complex Moving Boundaries, **174**, 345–380, 2001.
- H. S. Udaykumar, R. Mittal, and W. Shyy, Computation of Solid–Liquid Phase Fronts in the Sharp Interface Limit on Fixed Grids, **153**, 535–574, 1999.
- T. Ueki and J. E. Hoogenboom, Exact Monte Carlo Perturbation Analysis by Forward-Adjoint Coupling in Radiation Transport Calculations, **171**, 509–533, 2001.
- T. Ueki and E. W. Larsen, A Kinetic Theory for Nonanalog Monte Carlo Particle Transport Algorithms: Exponential Transform with Angular Biasing in Planar Geometry Anisotropically Scattering Media, **145**, 406–431, 1998.
- L. Umlauf, Y. Wang, and K. Hutter, Comparing Two Topography-Following Primitive Equation Models for Lake Circulation, **153**, 638–659, 1999.
- V**
- F. Vadillo, On Spurious Fixed Points of Runge–Kutta Methods, **132**, 78–90, 1997.
- V. Vahedi and G. DiPeso, Simultaneous Potential and Circuit Solution for Two-Dimensional Bounded Plasma Simulation Codes, **131**, 149–163, 1997.
- R. G. D. Valle and P. Procacci, Computer-Aided Series Expansion for Phonon Self-Energy, **165**, 428–436, 2000.
- M. Valorani and D. A. Goussis, Explicit Time-Scale Splitting Algorithm for Stiff Problems: Auto-ignition of Gaseous Mixtures behind a Steady Shock, **169**, 44–79, 2001.
- T. Van and A. Wood, A Time-Domain Finite Element Method for Helmholtz Equations, **183**, 486–507, 2002.
- E. H. Van Brummelen, H. C. Raven, and B. Koren, Efficient Numerical Solution of Steady Free-Surface Navier–Stokes Flow, **174**, 120–137, 2001.
- R. van Buuren, J. G. M. Kuerten, and B. J. Geurts, Instabilities of Stationary Inviscid Compressible Flow Around an Airfoil, **138**, 520–539, 1997.
- R. G. M. van der Sman and M. H. Ernst, Convection-Diffusion Lattice Boltzmann Scheme for Irregular Lattices, **160**, 766–782, 2000.
- J. J. W. van der Vegt and H. van der Ven, Space–Time Discontinuous Galerkin Finite Element Method with Dynamic Grid Motion for Inviscid Compressible Flows. I. General Formulation, **182**, 546–585, 2002.
- J. J. W. van der Vegt and H. van der Ven, Discontinuous Galerkin Finite Element Method with Anisotropic Local Grid Refinement for Inviscid Compressible Flows, **141**, 46–77, 1998.
- W. B. VanderHeyden and B. A. Kashiwa, Compatible Fluxes for van Leer Advection, **146**, 1–28, 1998.
- J. L. M. van Dorsselaer, Computing Eigenvalues Occurring in Continuation Methods with the Jacobi–Davidson QZ Method, **138**, 714–733, 1997.
- M. B. van Gijzen, C. B. Vreugdenhil, and H. Oksuzoglu, The Finite Element Discretization for Stream-Function Problems on Multiply Connected Domains, **140**, 30–46, 1998.
- C. Vanhille and C. Campos-Pozuelo, A High-Order Finite-Difference Algorithm for the Analysis of Standing Acoustic Waves of Finite but Moderate Amplitude, **165**, 334–353, 2000.
- A. van Heukelum, G. T. Barkema, and R. H. Bisseling, DNA Electrophoresis Studied with the Cage Model, **180**, 313–326, 2002.

- B. Van Leer, Godunov Symposium, **132**, 1–2, 1997.
- B. van Leer, Towards the Ultimate Conservative Difference Scheme. V. A. Second-Order Sequel to Godunov’s Method, **135**, 229–248, 1997.
- B. van Leer, An Introduction to the Article “Reminiscences about Difference Schemes” by S. K. Godunov, **153**, 1–5, 1999.
- B. G. M. van Wachem, A. F. Bakker, J. C. Schouten, M. W. Heemels, and S. W. de Leeuw, Simulation of Fluidized Beds with Lattice Gas Cellular Automata, **135**, 1–7, 1997.
- O. V. Vasilyev and C. Bowman, Second-Generation Wavelet Collocation Method for the Solution of Partial Differential Equations, **165**, 660–693, 2000.
- O. V. Vasilyev, T. S. Lund, and P. Moin, A General Class of Commutative Filters for LES in Complex Geometries, **146**, 82–104, 1998.
- O. V. Vasilyev and S. Paolucci, A Fast Adaptive Wavelet Collocation Algorithm for Multidimensional, PDEs, **138**, 16–56, 1997.
- O. V. Vasilyev, High Order Finite Difference Schemes on Non-uniform Meshes with Good Conservation Properties, **157**, 746–761, 2000.
- J.-L. Vay, A New Absorbing Layer Boundary Condition for the Wave Equation, **165**, 511–521, 2000.
- J.-L. Vay, An Extended FDTD Scheme for the Wave Equation: Application to Multiscale Electromagnetic Simulation, **167**, 72–98, 2001.
- J.-L. Vay, Asymmetric Perfectly Matched Layer for the Absorption of Waves, **183**, 367–399, 2002.
- M. E. Vázquez-Cendón, Improved Treatment of Source Terms in Upwind Schemes for the Shallow Water Equations in Channels with Irregular Geometry, **148**, 497–526, 1999.
- O. I. Velichko, V. A. Dobrushkin, A. N. Muchynski, V. A. Tsurko, and V. A. Zhuk, Simulation of Coupled Diffusion of Impurity Atoms and Point Defects under Non-equilibrium Conditions in Local Domain, **178**, 196–209, 2002.
- D. A. Venditti and D. L. Darmofal, Grid Adaptation for Functional Outputs: Application to Two-Dimensional Inviscid Flows, **176**, 40–69, 2002.
- D. A. Venditti and D. L. Darmofal, Adjoint Error Estimation and Grid Adaptation for Functional Outputs: Application to Quasi-One-Dimensional Flow, **164**, 204–227, 2000.
- S. Venkateswaran, J. W. Lindau, R. F. Kunz, and C. L. Merkle, Computation of Multiphase Mixture Flows with Compressibility Effects, **180**, 54–77, 2002.
- J. P. Verboncoeur, Symmetric Spline Weighting for Charge and Current Density in Particle Simulation, **174**, 421–427, 2001.
- W. T. M. Verkley, A Spectral Model for Two-Dimensional Incompressible Fluid Flow in a Circular Basin. I. Mathematical Formulation, **136**, 100–114, 1997.
- W. T. M. Verkley, A Spectral Model for Two-Dimensional Incompressible Fluid Flow in a Circular Basin. II. Numerical Examples, **136**, 115–131, 1997.
- J. Vierendeels, K. Riemsdigh, and E. Dick, A Multigrid Semi-implicit Line-Method for Viscous Incompressible and Low-Mach-Number Flows on High Aspect Ratio Grids, **154**, 310–341, 1999.
- V. Villamizar and O. Rojas, Time-Dependent Numerical Method with Boundary-Conforming Curvilinear Coordinates Applied to Wave Interactions with Prototypical Antennas, **177**, 1–36, 2002.
- P. Vignolo, M. L. Chiofalo, M. P. Tosi, and S. Succi, Explicit Finite-Difference and Particle Method for the Dynamics of Mixed Bose-Condensate and Cold-Atom Clouds, **182**, 368–391, 2002.
- S. Vincent and J.-P. Caltagirone, A One-Cell Local Multigrid Method for Solving Unsteady Incompressible Multiphase Flows, **163**, 172–215, 2000.
- M. R. Visbal and D. V. Gaitonde, On the Use of Higher-Order Finite-Difference Schemes on Curvilinear and Deforming Meshes, **181**, 155–185, 2002.
- V. R. Voller and F. Porté-Agel, Moore’s Law and Numerical Modeling, **179**, 698–703, 2002.
- P. W. C. Vosbeek, H. J. H. Clercx, and R. M. M. Mattheij, Acceleration of Contour Dynamics Simulations with a Hierarchical-Element Method, **161**, 287–311, 2000.
- P. W. C. Vosbeek and R. M. M. Mattheij, Contour Dynamics with Symplectic Time Integration, **133**, 222–234, 1997.
- H. X. Vu, A Massively Parallel Three-Dimensional Hybrid Code for Simulating Ion-Driven Parametric Instabilities, **144**, 257–279, 1998.
- H. X. Vu, B. Bezzerides, and D. F. DuBois, ASPEN: A Fully Kinetic, Reduced-Description Particle-in-Cell Model for Simulating Parametric Instabilities, **156**, 12–42, 1999.
- C. Vuik, A. Segal, and J. A. Meijerink, An Efficient Preconditioned CG Method for the Solution of a Class of Layered Problems with Extreme Contrasts in the Coefficients, **152**, 385–403, 1999.
- C. Vuik, A. Segal, J. A. Meijerink, and G. T. Wijma, The Construction of Projection Vectors for a Deflated ICCG Method Applied to Problems with Extreme Contrasts in the Coefficients, **172**, 426–450, 2001.
- L. Vu-Quoc, V. Srinivas, and Y. Zhai, A Generalized Unit System for Concise Electromagnetic Formulation and Accurate Numerical Solutions, **181**, 407–429, 2002.
- S. Vukovic and L. Sopta, ENO and WENO Schemes with the Exact Conservation Property for One-Dimensional Shallow Water Equations, **179**, 593–621, 2002.

W

- J. H. Walther and P. Koumoutsakos, Three-Dimensional Vortex Methods for Particle-Laden Flows with Two-Way Coupling, **167**, 39–71, 2001.
- J. Waltz, G. L. Page, S. D. Milder, J. Wallin, and A. Antunes, A Performance Comparison of Tree Data Structures for *N*-Body Simulation, **178**, 1–14, 2002.
- C. Wall, C. D. Pierce, and P. Moin, A Semi-implicit Method for Resolution of Acoustic Waves in Low Mach Number Flows, **181**, 545–563, 2002.
- D. C. Wan, B. S. V. Patnaik, and G. W. Wei, Discrete Singular Convolution–Finite Subdomain Method for the Solution of Incompressible Viscous Flows, **180**, 229–255, 2002.
- S. Wang, A Novel Exponentially Fitted Triangular Finite Element Method for an Advection–Diffusion Problem with Boundary Layers, **134**, 253–260, 1997.

- Z. J. Wang, Efficient Implementation of the Exact Numerical Far Field Boundary Condition for Poisson Equation on an Infinite Domain, **153**, 666–670, 1999.
- Z. J. Wang, Spectral (Finite) Volume Method for Conservation Laws on Unstructured Grids. Basic Formulation, **178**, 210–251, 2002.
- Z. J. Wang and R. F. Chen, Optimized Weighted Essentially Nonoscillatory Schemes for Linear Waves with Discontinuity, **174**, 381–404, 2001.
- H. Wang, R. E. Ewing, G. Qin, S. L. Lyons, M. Al-Lawatia, and S. Man, A Family of Eulerian–Lagrangian Localized Adjoint Methods for Multi-dimensional Advection–Reaction Equations, **152**, 120–163, 1999.
- N.-T. Wang and A. L. Fogelson, Computational Methods for Continuum Models of Platelet Aggregation, **151**, 649–675, 1999.
- X.-P. Wang, C. J. García-Cervera, and Weinan E, A Gauss–Seidel Projection Method for Micromagnetics Simulations, **171**, 357–372, 2001.
- Z. Wang and G. P. Huang, An Essentially Nonoscillatory High-Order Padé-Type (ENO–Padé) Scheme, **177**, 37–58, 2002.
- Y. Wang and K. Hutter, A Semi-implicit Semispectral Primitive Equation Model for Lake Circulation Dynamics and its Stability Performance, **139**, 209–242, 1998.
- H. Wang, D. Liang, R. E. Ewing, S. L. Lyons, and G. Qin, An ELLAM–MFEM Solution Technique for Compressible Fluid Flows in Porous Media with Point Sources and Sinks, **159**, 344–376, 2000.
- Z. J. Wang and Y. Liu, Spectral (Finite) Volume Method for Conservation Laws on Unstructured Grids. II. Extension to Two-Dimensional Scalar Equation, **179**, 665–697, 2002.
- W. Wangard, III, D. S. Dandy, and B. J. Miller, A Numerically Stable Method for Integration of the Multicomponent Species Diffusion Equations, **174**, 460–472, 2001.
- T. C. Warburton and G. E. Karniadakis, A Discontinuous Galerkin Method for the Viscous MHD Equations, **152**, 608–641, 1999.
- T. Warburton, L. F. Pavarino, and J. S. Hesthaven, A Pseudospectral Scheme for the Incompressible Navier–Stokes Equations Using Unstructured Nodal Elements, **164**, 1–21, 2000.
- O. Warschkow, J. M. Dyke, and D. E. Ellis, A Divide-and-Conquer Implementation of the Discrete Variational DFT Method for Large Molecular and Solid Systems, **143**, 70–89, 1998.
- C. F. Weber, Convergence of the Equilibrium Code SOL–GASMIX, **145**, 655–670, 1998.
- S. L. Weekes, A Stable Scheme for the Numerical Computation of Long Wave Propagation in Temporal Laminates, **176**, 345–362, 2002.
- J. Weese, E. Korat, D. Maier, and J. Honerkamp, Unfolding Sphere Size Distributions with a Density Estimator Based on Tikhonov Regularization, **138**, 331–353, 1997.
- R. Wegmann, An Upwind Difference Scheme for the Double-Adiabatic Equations, **131**, 199–215, 1997.
- T. Weiland and I. Zagorodnov, Maxwell’s Equations for Structures with Symmetries, **180**, 297–312, 2002.
- S. W. J. Welch and J. Wilson, A Volume of Fluid Based Method for Fluid Flows with Phase Change, **160**, 662–682, 2000.
- W. C. Welton, Two-Dimensional PDF/SPH Simulations of Compressible Turbulent Flows, **139**, 410–443, 1998.
- W. C. Welton and S. B. Pope, PDF Model Calculations of Compressible Turbulent Flows Using Smoothed Particle Hydrodynamics, **134**, 150–168, 1997.
- J. Werne, Comment on “There Is No Error in the Kleiser–Schumann Influence Matrix Method,” **141**, 88–89, 1998.
- M. J. Werner and P. D. Drummond, Robust Algorithms for Solving Stochastic Partial Differential Equations, **132**, 312–326, 1997.
- P. Wesseling, A. Segal, and C. G. M. Kassels, Computing Flows on General Three-Dimensional Nonsmooth Staggered Grids, **149**, 333–362, 1999.
- D. A. White, Numerical Modeling of Optical Gradient Traps Using the Vector Finite Element Method, **159**, 13–37, 2000.
- D. Wilhelm and L. Kleiser, Stability Analysis for Different Formulations of the Nonlinear Term in $P_N - P_{N-2}$ Spectral Element Discretizations of the Navier–Stokes Equations, **174**, 306–326, 2001.
- S. M. Willemsen, H. C. J. Hoefsloot, D. C. Visser, P. J. Hamersma, and P. D. Iedema, Modelling Phase Change with Dissipative Particle Dynamics Using a Consistent Boundary Condition, **162**, 385–394, 2000.
- S. M. Willemsen, T. J. H. Vlugt, H. C. J. Hoefsloot, and B. Smit, Combining Dissipative Particle Dynamics and Monte Carlo Techniques, **147**, 507–517, 1998.
- T. Winiecki and C. S. Adams, A Fast Semi-Implicit Finite-Difference Method for the TDGL Equations, **179**, 127–139, 2002.
- A. M. Winslow, Numerical Solution of the Quasilinear Poisson Equation in a Nonuniform Triangle Mesh, **135**, 128–138, 1997.
- J. Winterhalter, D. G. Ebling, D. Maier, and J. Honerkamp, Analysis of Admittance Data: Comparison of a Parametric and a Nonparametric Method, **153**, 139–159, 1999.
- A. Wirth, An Extension of Spectral Methods to Quasi-periodic and Multiscale Problems, **132**, 285–290, 1997.
- J. Wolny, A. Wnęk, and J.-L. Verger-Gaugry, Fractal Behaviour of Diffraction Pattern of Thue–Morse Sequence, **163**, 313–327, 2000.
- W. A. Wood and W. L. Kleb, Diffusion Characteristics of Finite Volume and Fluctuation Splitting Schemes, **153**, 353–377, 1999.
- A. S. Worlikar, O. M. Knio, and R. Klein, Numerical Simulation of a Thermoacoustic Refrigerator. II. Stratified Flow around the Stack, **144**, 299–324, 1998.
- J. P. Wright, Numerical Instability due to Varying Time Steps in Explicit Wave Propagation and Mechanics Calculations, **140**, 421–431, 1998.
- J. A. Wright and R. W. Smith, An Edge-Based Method for the Incompressible Navier–Stokes Equations on Polygonal Meshes, **169**, 24–43, 2001.
- Z.-N. Wu, Transmission of a Slowly Moving Shock across a Nonconservative Interface, **171**, 579–615, 2001.
- Z.-N. Wu, A Note on the Unified Coordinate System for Computing Shock Waves, **180**, 110–119, 2002.

- L. Wu and D. B. Bogy, Numerical Simulation of the Slider Air Bearing Problem of Hard Disk Drives by Two Multidimensional Upwind Residual Distribution Schemes over Unstructured Triangular Meshes, **172**, 640–657, 2001.
- K. Wu, A. Canning, H. D. Simon, and L.-W. Wang, Thick-Restart Lanczos Method for Electronic Structure Calculations, **154**, 156–173, 1999.
- X. T. Wu and E. F. Hayes, Algorithms for Obtaining Cumulative Reaction Probabilities for Chemical Reactions, **130**, 136–147, 1997.
- X. T. Wu, P. P. Korambath, E. F. Hayes, and D. C. Sorensen, Computation of Rovibrational Eigenvalues of van der Waals Molecules on a CRAY T3D, **138**, 286–301, 1997.
- Z.-N. Wu and H. Zou, Grid Overlapping for Implicit Parallel Computation of Compressible Flows, **157**, 2–43, 2000.

X

- F. Xiao, A Computational Model for Suspended Large Rigid Bodies in 3D Unsteady Viscous Flows, **155**, 348–379, 1999.
- F. Xiao and T. Yabe, Completely Conservative and Oscillationless Semi-Lagrangian Schemes for Advection Transportation, **170**, 498–522, 2001.
- Z. Xie, C.-H. Chan, and B. Zhang, An Explicit Fourth-Order Orthogonal Curvilinear Staggered-Grid FDTD Method for Maxwell's Equations, **175**, 739–763, 2002.
- D. Xiu and G. Em Karniadakis, A Semi-Lagrangian High-Order Method for Navier–Stokes Equations, **172**, 658–684, 2001.
- K. Xu, BGK-Based Scheme for Multicomponent Flow Calculations, **134**, 122–133, 1997.
- K. Xu, A Slope-Update Scheme for Compressible Flow Simulation, **178**, 252–259, 2002.
- K. Xu, A Well-Balanced Gas-Kinetic Scheme for the Shallow-Water Equations with Source Terms, **178**, 533–562, 2002.
- Y.-L. Xu, Efficient Evaluation of Vector Translation Coefficients in Multiparticle Light-Scattering Theories, **139**, 137–165, 1998.
- K. Xu, Gas-Kinetic Theory-Based Flux Splitting Method for Ideal Magnetohydrodynamics, **153**, 334–352, 1999.
- K. Xu, A Kinetic Method for Hyperbolic–Elliptic Equations and Its Application in Two-Phase Flow, **166**, 383–399, 2001.
- K. Xu, A Gas-Kinetic BGK Scheme for the Navier–Stokes Equations and Its Connection with Artificial Dissipation and Godunov Method, **171**, 289–335, 2001.
- K. Xu, Comment on “Development of an Improved Gas-Kinetic BGK Scheme for Inviscid and Viscous Flows”, **171**, 843–847, 2001.
- K. Xu and J. Hu, Projection Dynamics in Godunov-Type Schemes, **142**, 412–427, 1998.
- H. Y. Xu, M. D. Matovic, and A. Pollard, Finite Difference Schemes for Three-Dimensional Time-Dependent Convection-Diffusion Equation Using Full Global Discretization, **130**, 109–122, 1997.
- J. Xu and S. B. Pope, Assessment of Numerical Accuracy of PDF/Monte Carlo Methods for Turbulent Reacting Flows, **152**, 192–230, 1999.

Y

- T. Yabe, F. Xiao, and T. Utsumi, The Constrained Interpolation Profile Method for Multiphase Analysis, **169**, 556–593, 2001.
- N. K. Yamaleev, Minimization of the Truncation Error by Grid Adaptation, **170**, 459–497, 2001.
- N. K. Yamaleev and J. Ballmann, Space-Marching Method for Calculating Steady Supersonic Flows on a Grid Adapted to the Solution, **146**, 436–463, 1998.
- N. K. Yamaleev and M. H. Carpenter, On Accuracy of Adaptive Grid Methods for Captured Shocks, **181**, 280–316, 2002.
- J.-Y. Yang, M.-H. Chen, I.-N. Tsai, and J.-W. Chang, A Kinetic Beam Scheme for Relativistic Gas Dynamics, **136**, 19–40, 1997.
- B. Yang, D. Gottlieb, and J. S. Hesthaven, Spectral Simulations of Electromagnetic Wave Scattering, **134**, 216–230, 1997.
- P. Yang and K. N. Liou, An Efficient Algorithm for Truncating Spatial Domain in Modeling Light Scattering by Finite-Difference Technique, **140**, 346–369, 1998.
- B. Yang and P. G. Petropoulos, Plane-Wave Analysis and Comparison of Split-Field, Biaxial, and Uniaxial PML Methods as ABCs for Pseudospectral Electromagnetic Wave Simulations in Curvilinear Coordinates, **146**, 747–774, 1998.
- J.-Y. Yang, S.-C. Yang, Y.-N. Chen, and C.-A. Hsu, Implicit Weighted ENO Schemes for the Three-Dimensional Incompressible Navier–Stokes Equations, **146**, 464–487, 1998.
- G. Z. Yang and N. Zabarab, The Adjoint Method for an Inverse Design Problem in the Directional Solidification of Binary Alloys, **140**, 432–452, 1998.
- A. I. Yaremchuk and J. Schröter, Spectral Analysis of Symmetric Operators: Application to the Laplace Tidal Model, **147**, 1–21, 1998.
- I. Yavneh, Analysis of a Fourth-Order Compact Scheme for Convection–Diffusion, **133**, 361–364, 1997.
- I. Yavneh, A. F. Shepetkin, J. C. McWilliams, and L. P. Graves, Multigrid Solution of Rotating, Stably Stratified Flows: The Balance Equations and their Turbulent Dynamics, **136**, 245–262, 1997.
- N. Yarvin and V. Rokhlin, A Generalized One-Dimensional Fast Multipole Method with Application to Filtering of Spherical Harmonics, **147**, 594–609, 1998.
- T. Ye, R. Mittal, H. S. Udaykumar, and W. Shyy, An Accurate Cartesian Grid Method for Viscous Incompressible Flows with Complex Immersed Boundaries, **156**, 209–240, 1999.
- T. Ye, W. Shyy, and J. N. Chung, A Fixed-Grid, Sharp-Interface Method for Bubble Dynamics and Phase Change, **174**, 781–815, 2001.
- H. C. Yee, Explicit and Implicit Multidimensional Compact High-Resolution Shock-Capturing Methods: *Formulation*, **131**, 216–232, 1997.
- H. C. Yee, N. D. Sandham, and M. J. Djomehri, Low-Dissipative High-Order Shock-Capturing Methods Using Characteristic-Based Filters, **150**, 199–238, 1999.
- H. C. Yee, M. Vinokur, and M. J. Djomehri, Entropy Splitting and Numerical Dissipation, **162**, 33–81, 2000.

- A. Yefet and P. G. Petropoulos, A Staggered Fourth-Order Accurate Explicit Finite Difference Scheme for the Time-Domain Maxwell's Equations, **168**, 286–315, 2001.
- D. Yevick, T. Friese, and F. Schmidt, A Comparison of Transparent Boundary Conditions for the Fresnel Equation, **168**, 433–444, 2001.
- M. Yoneya, A Generalized Non-iterative Matrix Method for Constraint Molecular Dynamics Simulations, **172**, 188–197, 2001.
- L. Yuan, Comparison of Implicit Multigrid Schemes for Three-Dimensional Incompressible Flows, **177**, 134–155, 2002.
- S. J. Youn, W. Mannstadt, and A. J. Freeman, Analytic Spin-Orbit Coupling Matrix Element Formulae in FLAPW Calculations, **172**, 387–391, 2001.
- A. Younes, R. Mose, P. Ackerer, and G. Chavent, A New Formulation of the Mixed Finite Element Method for Solving Elliptic and Parabolic PDE with Triangular Elements, **149**, 148–167, 1999.
- H. Yu and Y.-P. Liu, A Second-Order Accurate, Component-Wise TVD Scheme for Nonlinear, Hyperbolic Conservation Laws, **173**, 1–16, 2001.
- H.-G. Yu and S. C. Smith, The Elimination of Lanczos Ghosting Effects by MINRES Filter Diagonalization, **143**, 484–494, 1998.
- Z**
- N. J. Zabusky, Introduction to “Numerical Simulation of Hydrodynamics by the Method of Point Vortices,” **135**, 187–188, 1997.
- N. J. Zabusky, M. H. Hughes, and K. V. Roberts, Contour Dynamics for the Euler Equations in Two Dimensions, **135**, 220–226, 1997.
- F. S. Zaitsev, V. V. Longinov, M. R. O'Brien, and R. Tanner, Difference Schemes for the Time Evolution of Three-Dimensional Kinetic Equations, **147**, 239–264, 1998.
- S. T. Zalesak, Introduction to “Flux-Corrected Transport. I. SHASTA, a Fluid Transport Algorithm that Works,” **135**, 170–171, 1997.
- L. Zaninetti, About the Random Walk from Many Injection Points, **156**, 382–392, 1999.
- R. Zanino, Advanced Finite Element Modeling of the Tokamak Plasma Edge, **138**, 881–906, 1997.
- M. Zerroukat and L. C. Wrobel, A Boundary Element Method for Multiple Moving Boundary Problems, **138**, 501–519, 1997.
- J. Zhang, Fast and High Accuracy Multigrid Solution of the Three Dimensional Poisson Equation, **143**, 449–461, 1998.
- J. Zhang, Multigrid Method and Fourth-Order Compact Scheme for 2D Poisson Equation with Unequal Mesh-Size Discretization, **179**, 170–179, 2002.
- J. Zhang, Z. Duan, and J. Ding, Simulating Shock to Detonation Transition: Algorithm and Results, **150**, 128–142, 1999.
- L. T. Zhang, G. J. Wagner, and W. K. Liu, A Parallelized Meshfree Method with Boundary Enrichment for Large-Scale CFD, **176**, 483–506, 2002.
- Y. L. Zhang, K. S. Yeo, B. C. Khoo, and W. K. Chong, Three-Dimensional Computation of Bubbles Near a Free Surface, **146**, 105–123, 1998.
- Y. L. Zhang, K. S. Yeo, B. C. Khoo, and C. Wang, 3D Jet Impact and Toroidal Bubbles, **166**, 336–360, 2001.
- G. Zhang and Y. Zhang, An Iterative Method for the Inversion of the Two-Dimensional Wave Equation with a Potential, **147**, 485–506, 1998.
- J. Zhang and J. J. Zhao, Unconditionally Stable Finite Difference Scheme and Iterative Solution of 2D Microscale Heat Transport Equation, **170**, 261–275, 2001.
- X. Zhang, D. Schmidt, and B. Perot, Accuracy and Conservation Properties of a Three-Dimensional Unstructured Staggered Mesh Scheme for Fluid Dynamics, **175**, 764–791, 2002.
- Z.-C. Zhang, S. T. John Yu, and S.-C. Chang, A Space-Time Conservation Element and Solution Element Method for Solving the Two- and Three-Dimensional Unsteady Euler Equations Using Quadrilateral and Hexahedral Meshes, **175**, 168–199, 2002.
- P. Zhao and J. C. Heinrich, Front-Tracking Finite Element Method for Dendritic Solidification, **173**, 765–796, 2001.
- H.-K. Zhao, B. Merriman, S. Osher, and L. Wang, Capturing the Behavior of Bubbles and Drops Using the Variational Level Set Approach, **143**, 495–518, 1998.
- Y. Zhao, H. H. Tan, and B. Zhang, A High-Resolution Characteristics-Based Implicit Dual Time-Stepping VOF Method for Free Surface Flow Simulation on Unstructured Grids, **183**, 233–273, 2002.
- X. Zhong, High-Order Finite-Difference Schemes for Numerical Simulation of Hypersonic Boundary-Layer Transition, **144**, 662–709, 1998.
- J. G. Zhou, D. M. Causon, C. G. Mingham, and D. M. Ingram, The Surface Gradient Method for the Treatment of Source Terms in the Shallow-Water Equations, **168**, 1–25, 2001.
- J. Zhou and N. Saffari, Numerical Modelling of Wave Propagation in Elastic Rectangular Block Media, **131**, 299–309, 1997.
- L. Zhou, V. B. Wickwar, and R. W. Schunk, Solving the Navier–Stokes Systems with Weak Viscosity and Strong Heat Conduction Using the Flux-Corrected Transport Technique and the Alternating-Directional Explicit Method, **144**, 379–401, 1998.
- Y. Zhu and P. J. Fox, Simulation of Pore-Scale Dispersion in Periodic Porous Media Using Smoothed Particle Hydrodynamics, **182**, 622–645, 2002.
- X. Zhu, G. Lei, and G. Pan, On Application of Fast and Adaptive Periodic Battle–Lemarie Wavelets to Modeling of Multiple Lossy Transmission Lines, **132**, 299–311, 1997.
- L. Zhu and C. S. Peskin, Simulation of a Flapping Flexible Filament in a Flowing Soap Film by the Immersed Boundary Method, **179**, 452–468, 2002.
- Y. Zhuang and X.-H. Sun, A High-Order Fast Direct Solver for Singular Poisson Equations, **171**, 79–94, 2001.
- S. Zimmermann, P. Koumoutsakos, and W. Kinzelbach, Simulation of Pollutant Transport Using a Particle Method, **173**, 322–347, 2001.

- A. Z. Zinchenko and R. H. Davis, An Efficient Algorithm for Hydrodynamical Interaction of Many Deformable Drops, **157**, 539–587, 2000.
- D. W. Zingg, S. De Rango, M. Nemeč, and T. H. Pulliam, Comparison of Several Spatial Discretizations for the Navier–Stokes Equations, **160**, 683–704, 2000.
- U. Zrahia, S. A. Orszag, and M. Israeli, Hybrid Spectral Element/Asymptotic Method for Boundary Layers Problems, **138**, 858–880, 1997.
- I. Žutić and O. T. Valls, Numerically Implemented Perturbation Method for the Nonlinear Magnetic Moment of an Anisotropic Superconductor, **136**, 337–353, 1997.
- P. J. Zwart, G. D. Raithby, and M. J. Raw, The Integrated Space-Time Finite Volume Method and Its Application to Moving Boundary Problems, **154**, 497–519, 1999.