

References

- A. M. Abd-el-Fattah, L. F. Henderson and A. Lozzi (1976) "Precursor Shock Waves at a Slow-Fast Gas Interface, *J. Fluid Mech.* **76**, 157-176.
- A. M. Abd-el-Fattah and L. F. Henderson (1978) "Shock Waves at a Fast-Slow Gas Interface", *J. Fluid Mech.* **86**, 15-32.
- A. M. Abd-el-Fattah and L. F. Henderson (1978) "Shock Waves at a Slow-Fast Gas Interface", *J. Fluid Mech.* **89**, 79-95.
- A. S. Almgren and J. B. Bell and P. Colella and L. H. Howell (1993) "An Adaptive Projection Method for the Incompressible Euler Equations", Proceedings of the 11th AIAA Computational Fluid Dynamics Conference, Orlando, FL.
- A. S. Almgren and J. B. Bell and P. Colella and T. Marthaler (1994) "A Cartesian Grid Projection Method for the Incompressible Euler Equations" (manuscript) Lawrence Livermore National Laboratory
- J. B. Bell, C. N. Dawson and G. R. Shubin (1988) "An Unsplit Higher Order Godunov Method for Scalar Conservation Laws in Multiple Dimensions", *J. Comp. Phys.* **74**, 1-24.
- J. B. Bell, P. Colella, and H. M. Glaz (1989) "A Second-Order Projection Method for the Incompressible Navier-Stokes Equations", *J. Comput. Phys.* **85**, 257-283.
- J. B. Bell, P. Colella, and J. A. Trangenstein (1989) "Higher-Order Godunov Methods for General Systems of Hyperbolic Conservation Laws", *J. Comput. Phys.* **82**, 362-397.
- J. B. Bell, H. M. Glaz, J. M. Solomon, and W. G. Szymczak, "Application of a Second-Order Projection Method to the Study of Shear Layers", in the *Proceedings of the 11th International Conference on Numerical Methods in Fluid Dynamics*, Williamsburg, VA, June 27-July 1, 1988.
- J. B. Bell, and D. L. Marcus (1992) "A Second-Order Projection Method for Variable Density Flows", *J. Comput. Phys.* **101**, 334-348.
- J. B. Bell, and D. L. Marcus (1992) "Vorticity intensification and transition to turbulence in the three-dimensional Euler equations", *Comm. Math Phys.* **147**, 371-394.
- J. B. Bell, M. J. Berger, J. Saltzman, and M. Welcome (1994) "Three Dimensional Adaptive Mesh Refinement for Hyperbolic Conservation Laws", *SIAM J. Sci. Comput.* **15**, 127-138.
- M. J. Berger and P. Colella (1989) "Local Adaptive Mesh Refinement for Shock Hydrodynamics", *J. Comput. Phys.*, **82**, 64-84.
- J. U. Brackbill, D. B. Kothe and C. Zemach (1992) "A Continuum Method for Modeling Surface Tension", *J. Comput. Phys.* **100**, 335-354.
- D. L. Brown (1993) "An Unsplit Godunov Method for Systems of Conservation Laws on Curvilinear Overlapping Grids", **LA-UR-93-2868**, Los Alamos National Laboratory.

- D. L. Brown and G. Chesshire and W. D. Henshaw (1990) "Getting Started with CMPGRD, Introductory User's Guide and Reference Manual", **LA-UR-90-3729**, Los Alamos National Laboratory.
- G. Chesshire and W. D. Henshaw (1990) "Composite Overlapping Meshes for the Solution of Partial Differential Equations", *J. Comput. Phys.*, **90**(1), 1-64
- G. Chesshire and W. D. Henshaw (1994) "A Scheme for Conservative Interpolation on Overlapping Grids", *SIAM J. Sci. Comput.* **15**(4), 819-845
- A. J. Chorin, *Numerical Solution of the Navier-Stokes Equations*, *Math. Comput.* **22** (1968), 745-762
- A. J. Chorin, *On the Convergence of Discrete Approximations to the Navier-Stokes Equations*, *Math. Comput.* **23** (1969), 341-353
- A. J. Chorin, *Flame Advection and Propagation Algorithms* *J. Comput. Phys.* **35** (1980), 1-11
- A. J. Chorin, *Curvature and Solidification*, *J. Comput. Phys.* **57** (1985), 472-490
- A. J. Chorin and J. E. Marsden, "A Mathematical Introduction to Fluid Mechanics", (3rd ed) Springer-Verlag (1992)
- P. Colella, *A Direct Eulerian MUSCL Scheme for Gas Dynamics* (1985) *SIAM J. Sci. Stat. Comput.* **6**, 104-117
- P. Colella, and P. Woodward (1984) *The Piecewise Parabolic Method (PPM) for Gas Dynamical Simulations*, *J. Comput. Phys.* **54**, 174-201
- P. Colella (1990) *Multidimensional Upwind Methods for Hyperbolic Conservation Laws*, *J. Comput. Phys.* **87**, 171-200
- P. Colella, L. F. Henderson, and E. G. Puckett (1989) *A Numerical Study of Shock Wave Refraction at a Gas Interface*, Proceedings of the AIAA 9th Computational Fluid Dynamics Conference, Buffalo, New York, 426-439
- D. S. Dandy and L. G. Leal (1989) "Buoyancy-driven motion of a deformable drop through a quiescent liquid at intermediate Reynolds numbers", *J. Fluid Mech.* **208**, 161.
- D. S. Dandy and H. A. Dwyer (1990) "A Sphere in Shear Flow at Finite Reynolds Numbers: Effect of Shear on Particle Lift, Drag, and Heat Transfer", *J. Fluid. Mech.*, **216**,381-410.
- R. DeBar (1974) "A Method in Two-D Eulerian Hydrodynamics", **UCID-19683**, Lawrence Livermore National Laboratory.
- N. V. Deshpande (1989) "Fluid Mechanics of Bubble Growth and Collapse in a Thermal Ink-Jet Printhead", SPSE/SPIES Electronic Imaging Devices and Systems Symposium, January 1989.
- H. A. Dwyer (1989) "Calculation of Droplet Dynamics in High Temperature Environments", *Prog.*

Energy Combust. Sci., **15**, 131-158.

S. A. Elrod, B. Hadimioglu, B. T. Khuri-Yakub, E. G. Rawson, E. Richley, C. F. Quate, N. N. Mansour and T. S. Lundgren (1989) Nozzleless Droplet Formation with Focused Acoustic Beams, *J. Appl. Phys.* **65**(9), 3341-3347.

A. F. Ghoniem, A. J. Chorin and A. K. Oppenheim (1982) *Numerical Modeling of Turbulent Flow in a Combustion Tunnel*, Phil. Trans. R. Soc. Lond. **A 304**, 303-325.

L. F. Henderson (1966) *The Refraction of a Plane Shock Wave at a Gas Interface*, *J. Fluid Mech.* **26**, 607-637.

L. F. Henderson (1989) *On the Refraction of Shock Waves*, *J. Fluid Mech.* **198**, 365-386.

L. F. Henderson, E. G. Puckett, and P. Colella, *On the Anomalous Refraction of Shock Waves*, Proceedings of the Second Japan-Soviet Union Symposium on Computational Fluid Dynamics, Tsukuba, Japan, August 27-31, 1990

L. F. Henderson, P. Colella, and E. G. Puckett (1991) "On the Refraction of Shock Waves at a Slow-Fast Gas Interface", *J. Fluid Mech.* **224**, 1-27.

L. F. Henderson, E. G. Puckett and P. Colella (1992) Anomalous Refraction of Shock Waves, In *Shock Waves*, K. Takayama (ed.), Springer Verlag, 283-286.

[Hi] C. W. Hirt and B. D. Nichols (1981) "Volume-of-Fluid (VOF) Method for the Dynamics of Free Boundaries", *J. Comput. Phys.* **39**, 201-225.

R. S. Hotchkiss (1979) "Simulation of Tank Draining Phenomena with the SOLA-VOF Code", **LA-8163-MS**, Los Alamos National Laboratory.

K. S. Holian, S. J. Mosso, D. A. Mandell and R. Henninger (1991) "MESA: A 3-D Computer Code for Armor/Anti-Armor Applications", **LA--UR--91-569**.

J. M. Hyman (1984) *Numerical Methods for Tracking Interfaces*, *Physica* **12D**, 396-407.

J. Kim and P. Moin (1985) *Application of a Fractional-Step Method to the Incompressible Navier-Stokes Equations*, *J. Comput. Phys.* **59**, 308-323

D. B. Kothe, R. C. Mjolsness and M. D. Torrey (1991) "RIPPLE: A Computer Program for Incompressible Flows with Free Surfaces", **LA-12007-MS**, Los Alamos National Laboratory.

D. B. Kothe, J. R. Baumgardner, S. T. Bennion, J. H. Cerutti, B. J. Daly, K. S. Holian, E. M. Kober, S. J. Mosso, J. W. Painter, R. D. Smith and M. D. Torrey, (1992) "PAGOSA: A Massively-Parallel, Multi-Material Hydro-Dynamics Model for Three-Dimensional High-Speed Flow and High-Rate Deformation", **LA-UR-92-4306**.

R. J. LeVeque "Numerical Methods for Conservation Laws", Birkhauser (1992)

D. L. Marcus, and J. B. Bell (1992) "The Structure and Evolution of the Vorticity and Temperature

Fields in Thermals”, *Theoretical and Comput. Fluid Dynamics* **3**, 327-344

D. L. Marcus, and J. B. Bell (1994) “Numerical Simulation of a Viscous Vortex Ring Interaction with a Density Interface”, *Physics of Fluids A* (in press)

D. L. Marcus, E. G. Puckett, J. B. Bell, and J. Saltzman (1991) “Numerical Simulation of Accelerated Interfaces”, In *Proc. 3rd International Workshop on the Physics of Compressible Turbulent Mixing*, R. Dautray (ed.), Royaumont, France, 63-81.

G. H. Miller and E. G. Puckett (1994) Edge Effects in Molybdenum-Encapsulated Molten Silicate Shock Wave Targets, *J. Appl. Phys.* **75**(3), 1426-1434.

W. Mulder, S. Osher, and J. A. Sethian, *Computing Interface Motion in Compressible Gas Dynamics*, submitted to *J. Comput. Phys.*

B. D. Nichols, C. W. Hirt and R. S. Hotchkiss (1980) “SOLA-VOF: A Solution Algorithm for Transient Fluid Flow with Multiple Free Boundaries”, **LA-8355** Los Alamos National Laboratory.

W. F. Noh and P. R. Woodward, *SLIC (Simple Line Interface Method)*, in *Lecture Notes in Physics* **59**, A. I. van de Vooren and P. J. Zandbergen (ed.), Springer Verlag, Berlin (1976).

S. Osher and J. A. Sethian (1988) *Fronts Propagating with Curvature-Dependent Speed: Algorithms Based on Hamilton-Jacobi Formulations*, *J. Comput. Phys.* **79**, 12-49.

B. J. Parker and D. L. Youngs (1992) “Two and Three Dimensional Eulerian Simulation of Fluid Flow with Material Interfaces”, AWE Preprint **01/92** UK Atomic Weapons Establishment.

N. A. Petersson and J. F. Malmliden (1993) “Computing the flow around a submerged body using composite grids”, *J. Comput. Phys.*, **105**, 47-57.

J. E. Pilliod (1992) “An Analysis of Piecewise Linear Interface Reconstruction Algorithms for Volume-Of-Fluid Methods” *Masters Thesis*, U. C. Davis, September 1992.

J. E. Pilliod and E. G. Puckett “Second-Order Volume of Fluid Algorithms for Tracking Material Interfaces” In preparation for submittal to *J. of Comput. Physics*.

E. G. Puckett, L. F. Henderson, and P. Colella (1989) *Computations of the Refraction of a Plane Shock Wave at a Slow-Fast Gas Interface*, Proceedings of the 17th International Symposium on Shock Waves and Shock Tubes, Lehigh University, Bethlehem, PA, July 17-21, 1989

E. G. Puckett (1991) “A Volume of Fluid Interface Tracking Algorithm with Applications to Computing Shock Wave Refraction”, in *Proc. 4th Int. Sym. on Comp. Fluid Dynamics*, H. A. Dwyer (ed.), Davis, California.

E. G. Puckett (1991) “A Numerical Study of Shock Wave Refraction at a CO₂/CH₄ Interface”, In *Multidimensional Hyperbolic Problems and Computations*, Volumes in Mathematics and Its Applications **29**, J. Glimm and A. J. Majda (ed.), Springer Verlag, New York, 261-280.

E. G. Puckett and J. Saltzman (1992) “A 3-D Adaptive Mesh Refinement Algorithm for Multi-Ma-

terial Gas Dynamics Mixing”, *Physica D* **60**, 84-93.

E. G. Puckett, L. F. Henderson, and P. Colella (1994) “A General Theory of Anomalous Refraction”, in *Proc. 19th International Symposium on Shock Waves*, R. Brun (ed.) (to appear).

E. G. Puckett, D. L. Marcus, J. B. Bell, and A. S. Almgren (1994) “A Projection Method for Multi-Fluid Flows with Interface Tracking”, (manuscript) Lawrence Livermore National Laboratory.

W. J. Rider (1994) “Approximate Projection Methods for Incompressible Flow: Implementation, Variants and Robustness” (manuscript) Los Alamos National Laboratory

J. A. Sethian (1982) *An Analysis of Flame Propagation* PhD Thesis, U. C. Berkeley.

J. A. Sethian (1984) *Turbulent Combustion in Open and Closed Vessels*, *J. Comput. Phys.* **54**, 425-456.

J. A. Sethian (1985) *Curvature and the Evolution of Fronts*, *Comm. Math. Phys.* **101**, 487-499.

J. A. Sethian (1990) *Numerical Algorithms for Propagating Interfaces: Hamilton-Jacobi Equations and Conservation Laws*, *J. Differential Geometry* **31**, 131-161

G. I. Taylor (1934) *Proc. Roy. Soc. London A* **146** 501.

P. A. Torpey (1988) “Prevention of Air Ingestion in a Thermal Ink-Jet Device”, 4th International Congress on Advances in Non-Impact Print Technologies, March 1988.

M. D. Torrey, R. C. Mjolsness and L. R. Stein (1987) “NASA-VOF3D: A Three-Dimensional Computer Program for Incompressible Flows with Free Surfaces”, **LA-11009-MS**, Los Alamos National Laboratory.

S. O. Unverdi and G. Trygvasson (1992) “A Front Tracking Method for Viscous Incompressible Flows”, *J. Comput. Physics*, **100**, 25-37.

B. van Leer (1979) “Towards the Ultimate Conservative Difference Scheme, A Second Order Sequel to Godunov's Method”, *J. Comput. Phys.* **32**, 101-136.

B. van Leer (1984) “On the Relation Between the Upwind Schemes of Godunov, Enquist-Osher and Roe”, *JIAM J. Sci. Stat. Comput.* **5**, 1-20.

D. B. Wallace (1989) “A Method of Characteristics Model of a Drop on-Demand Ink-Jet Device Using an Integral Method Drop Formation Model”, **89-WA/FE-4**, ASME Annual Winter Meeting, December 10-15, 1989.

P. R. Woodward and P. Colella (1984) “The Numerical Simulation of Two-Dimensional Fluid Flow with Strong Shocks”, *J. Comput. Phys.* **54**, 115-173.

H. C. Yee (1986) “Upwind and Symmetric Shock-Capturing Schemes” in *Proceedings of the Seminar on Computational Aerodynamics*, M. Hafez (ed.), U. C. Davis, Davis, CA

D. L. Youngs (1982) “Time-Dependent Multi-Material Flow with Large Fluid Distortion”, in *Nu-*

merical Methods for Fluid Dynamics, K. W. Morton and M. J. Baines (ed.), Academic Press, London, 273-285

D. L. Youngs (1984) "Numerical Simulation of Turbulent Mixing by Rayleigh-Taylor Instability", *Physica* **12D**, 32-44

S. T. Zalesak (1989) "Fully Multidimensional Flux-Corrected Transport Algorithms for Fluid", *J. Comput. Phys.* **31**, 335-362