

LA-UR-05-9250

*Approved for public release;
distribution is unlimited.*

<i>Title:</i>	ASC Verification Project Bibliography, December 2005
<i>Author(s):</i>	Jerry S. Brock Applied Physics Division
<i>Date:</i>	December, 2005



Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the U.S. Department of Energy under contract W-7405-ENG-36. By acceptance of this article, the publisher recognizes that the U.S. Government retains a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

FORM 836 (8/00)

This page is left blank intentionally.

ASC Verification Project Bibliography

2005

- [2005-01] Brock, J. S., "Executive Summary for the LANL ASC L2 Milestone: Code Verification, Calculation Verification, Solution-Error Analysis and Test Problem Development for LANL Physics-Simulation Codes, September 2005," Los Alamos National Laboratory, LA-UR-05-8346, 2005.
- [2005-02] Brock, J. S., "Documentation List for the LANL ASC L2 Milestone: Code Verification, Calculation Verification, Solution-Error Analysis and Test Problem Development for LANL Physics-Simulation Codes, September 2005," Los Alamos National Laboratory, LA-UR-05-8375, 2005.
- [2005-03] Brock, J. S., "LANL ASC L2 Milestone Plan: Code Verification, Calculation Verification, Solution-Error Analysis and Test Problem Development for LANL Physics-Simulation Codes, September 2005," Los Alamos National Laboratory, LA-UR-05-4212, 2005.
- [2005-04] Hemez, F. M., "Non-Linear Error Ansatz Models for Solution Verification in Computational Physics," Los Alamos National Laboratory, LA-UR-05-8228, 2005.
- [2005-05] Li, S., Rider, W. J. and Shashkov, M. J., "Two-Dimensional Convergence Study for Problems with Exact Solution: Uniform and Adaptive Grids," Los Alamos National Laboratory, LA-UR-05-7985, 2005.
- [2005-06] Smitherman, D. P., Kamm, J. R. and Brock, J. S., "Calculation Verification: Pointwise Estimation of Solutions and Their Method-Associated Numerical Error," Los Alamos National Laboratory, LA-UR-05-8002, 2005.
- [2005-07] Yu, Y., Zhao, M., Lee, T., Pestieau, N., Bo, W., Glimm, J. and Grove, J. W., "Uncertainty Quantification for Chaotic Computational Fluid Dynamics," Los Alamos National Laboratory, LA-UR-05-6212, 2005.
- [2005-08] Grove, J. W., "Amhctools: User Guide and Programmers Manual," Los Alamos National Laboratory, LA-UR-05-7425 and LA-CC-05-0052, 2005.
- [2005-09] Williams, T. O., Li, S., Brock, J. S. and Kamm, J. R., "Spherical Shell Analysis for Material Modeling," Los Alamos National Laboratory, LA-UR-05-8038, 2005.
- [2005-10] Grove, J. W. and Devolder, B. G., "Solution-Error Analysis (U)," Los Alamos National Laboratory, LA-CP-05-0986, 2005.
- [2005-11] Grove, J. W., Devolder, B. G. and Glimm, J., "Error Analysis and Simulations of Complex Phenomena," *Los Alamos Science*, No. 29, 2005.
- [2005-12] Timmes, F. X., Gisler, G. and Hrbek, G. M., "Automated Analyses of the Tri-Lab Verification Test Suite on Uniform and Adaptive Grids for Code Project A," Los Alamos National Laboratory, LA-UR-05-6865 and LA-CC-05-0101, 2005.
- [2005-13] Brock, J. S., Rousculp, C. L. and Nelson, R. A., "Code and Calculation-Verification Analysis in Support of ASC Primary V&V Assessment Milestone (U)," Los Alamos National Laboratory, LA-CP-05-0530, 2005.

- [2005-14] Hutchens, G. J., Brock, J. S. and Hrbek, G. M., "Automated Convergence Analysis of an ASC Shavano Project Code Using Noh's Hydrodynamic Test Problem," Los Alamos National Laboratory, LA-UR-05-7408, 2005.
- [2005-15] Brock, J. S. and Hrbek, G. M., "Analytical Testing of Physics-Simulation Codes: Automation Concepts and Requirements," Los Alamos National Laboratory, LA-UR-05-5955, 2005.
- [2005-16] Timmes, F. X., "Progress Report on Three (More) Tri-Lab Verification Test Suite Problems," Los Alamos National Laboratory, LA-UR-05-5036, 2005.
- [2005-17] Hrbek, G. M., Brock, J. S., Timmes, F. X. and Kamm, J. R., "An Automated Scripting Tool for Performing Verification Analysis on Physical Simulation Codes," Los Alamos National Laboratory, LA-UR-05-3471, 2005.
- [2005-18] Gisler, G., "Two-Dimensional Convergence Study of the Noh and Sedov Problems with RAGE: Uniform and Adaptive Grids," Los Alamos National Laboratory, LA-UR-05-2809, 2005.
- [2005-19] Timmes, F. X., "Progress Report on Three Tri-Lab Verification Test Suite Problems," Los Alamos National Laboratory, LA-UR-05-2689, 2005.
- [2005-20] Li, S., "Spatial Convergence Analysis for a 2-D Adaptive Mesh Refinement Code," Los Alamos National Laboratory, LA-UR-05-3078, 2005.
- [2005-21] Williams, T. O., "Exact Solutions for the Spherically Symmetric Dynamic Response of Spherical Shells," Los Alamos National Laboratory, LA-UR-05-2660, 2005.
- [2005-22] Li, S., "Exact Eigenfunction Solutions for the Spherically Symmetric Dynamic Response of Spherical Shells: Code Implementation," Los Alamos National Laboratory, LA-UR-05-5306, 2005.
- [2005-23] Brock, J. S., Kamm, J. R. and Hrbek, G. M., "Verification of an ASC Shavano Project Code Using Noh's Hydrodynamic Test Problem," Los Alamos National Laboratory, LA-UR-05-1157, 2005.

2004

- [2004-01] Brock, J. S. and Rousculp, C. L, "Preliminary Code and Calculation-Verification Activities for the ASC Primary V&V Assessment Milestone (U)," Los Alamos National Laboratory, LA-CP-04-0951, 2004.
- [2004-02] Brock, J. S., "ASC Verification-Project Bibliography, Version I," Los Alamos National Laboratory, LA-UR-04-3802, 2004.
- [2004-03] Kamm, J. R. and Kirkpatrick, R. C., "Verification Analyses of Code Project A In Support of FY04 Q2 Secondary Verification and Validation Level 2 Milestone (U)," LA-CP-04-0436, 2004.

2003

- [2003-01] Brock, J. S., "Isolating Temporal-Discretization Errors for Separate-Verification Analyses," AIAA Paper 2004-0741, 2004. (Los Alamos National Laboratory, LA-UR-03-9160, 2003.)
- [2003-02] Kamm, J. R., Brock, J. S., Rousculp, C. L. and Rider, W. J., "Verification of an ASCI Shavano Project Hydrodynamics Algorithm," Los Alamos National Laboratory, LA-UR-03-6999, 2003.
- [2003-03] Lee, M. B. and White, S. W., "Shavano Project 3D Results of a Verification Problem (U)," Los Alamos National Laboratory Research Note, X-5-RN (SRD)-03-58, 2003.
- [2003-04] Kamm, J. R., Rider, W. J. and Brock, J. S., "Combined Space and Time Convergence Analysis of a Compressible Flow Algorithm," AIAA Paper 2003-4241, 2003. (Los Alamos National Laboratory, LA-UR-03-2628, 2003.)
- [2003-05] Brock, J. S., "Discretization Errors for Separate-Verification Analysis," NECDC Paper, 2002. (Los Alamos National Laboratory, LA-UR-03-2618, 2003.)

2002

- [2002-01] Kamm, J. R., Rider, W. J. and Brock, J. S., "Space and Time Convergence Analysis of a Crestone Project Hydrodynamics Algorithm," Los Alamos National Laboratory, LA-UR-02-5962, 2002.
- [2002-02] Kamm, J. R., Rider, W. J. and Brock, J. S., "Consistent Metrics for Code Verification," Los Alamos National Laboratory, LA-UR-02-3794, 2002.
- [2002-03] Kamm, J. R. and Rider, W. J., "Summary of the ASCI/NNSA Verification Workshop 2001," Los Alamos National Laboratory, LA-UR-02-0313, 2002.

2001

- [2001-01] Kamm, J. R., Rider, W. J., Kirkland, M. W. and Mathews, A. R., "Verification and Validation Methodology for Nuclear Primary Codes (U)," in "Report of the Activities for Completion of the V&V Level-1 Milestone for Initial Validation Methodology for Early-Time Primary Behavior by the Los Alamos National Laboratory (U)," Los Alamos National Laboratory, LA-CP-01-0259, 2001.
- [2001-02] Clancy, S. P., Harris, D. B., Kamm, J. R., McKee, T. E., Painter, J. W., Rider, W. J. and Shirk, D. G., "Verification Status Report for Blanca and Initial Verification Results for the Crestone Project (U)," in "Report of the Activities for Completion of the V&V Level-1 Milestone for Initial Validation Methodology for Early-Time Primary Behavior by the Los Alamos National Laboratory (U)," Los Alamos National Laboratory, LA-CP-01-0259, 2001.

2000

- [2000-01] Kamm, J. R., "Evaluation of the Sedov-von Neumann Taylor Blast Wave Solution," Los Alamos National Laboratory, LA-UR-00-6055, 2000.
- [2000-02] Clover, M. R., Kamm, J. R. and Rider, W. J., "An Example of Verification Analysis for an Eulerian Hydrocode," NECDC Paper, 2000. (Los Alamos National Laboratory, LA-UR-00-5371, 2000.)
- [2000-03] Kamm, J. R., "Investigation of the Reinicke & Meyer-ter-Vehn Equations: 1. The Strong Conduction Case," Los Alamos National Laboratory, LA-UR-00-4304, 2000.

1999

- [1999-01] Kamm, J. R., Rider, W. J., Vorobieff, P. V., Rightley, P. M., Benjamin, R. F. and Prestridge, K. P., "Verification and Validation of Hydrocodes with Detailed Experimental Data," Los Alamos National Laboratory, LA-UR-99-5575, 1999.
- [1999-02] Kamm, J. R. and Rider, W. J., "Verification Analysis of the Direct Eulerian 2-D RAGE Hydrodynamics Algorithm," Los Alamos National Laboratory, LA-UR-99-5234, 1999.

1998

- [1998-01] Kamm, J. R. and Rider, W. J., "2-D Convergence Analysis of the RAGE Hydrocode," Los Alamos National Laboratory, LA-UR-98-3872, 1998.