

Steve Schaffer

Publications in refereed conference proceedings:

1. Hoffman, M., S. Schaffer, and K. Wedeward, "Parameter Estimation in Delayed-Switching Hybrid Dynamical Systems," to appear in 2009 IEEE Power Engineering Society General Meeting, Calgary, Alberta, Canada, July 2009
2. Schaffer, S., K. Wedeward, and S. Ball, "A Research Code for Dynamic System Simulation and Analysis", Proc. International Test and Evaluation Association Modeling and Simulation Conference, Las Cruces, NM, December 2007
3. Schaffer, S., K. Wedeward, and S. Ball, "A Research Code for Dynamic System Simulation and Analysis", Proc. International Test and Evaluation Association Modeling and Simulation Conference, Las Cruces, NM, December 2007
4. Hoffman, M., S. Schaffer, and K. Wedeward, "Parameter Estimation of Hybrid Dynamical Systems with Delayed Switching", Proc. International Test and Evaluation Association Modeling and Simulation Conference, Las Cruces, NM, December 2007
5. Ball, S., M.D. Marshall, S. Schaffer, and K.J. Wedeward, "An Integrated Approach to Modeling, Simulation, and Analysis of Critical Infrastructure Systems", Phalanx: The Bulletin of Military Operations Research, Vol. 39, No. 4, 2006
6. __, S. Ball, E. Barany, K. Wedeward, Nonlinear Control of Electric Power Network Models using Feedback Linearization, The Third IASTED International Conference on Circuits, Signals, and Systems, October, 2005, Marina del Rey, CA
7. __, S. Ball, K. Wedeward, E. Barany, A Reduced Generator Model with Excitation Limits, Eighth IASTED Conference on Power and Energy Systems, Marina del Rey, CA, October 2005.
8. __, E. Barany, K. Wedeward, and S. Ball, Controllability of Singularly Perturbed Models of Power Flow Networks, 43rd IEEE Conference on Decision and Control, Atlantis, Paradise Island, Bahamas, Dec. 14-17, 2004
9. Sue Goudy, L. Liebrock, and Steve Schaffer, SMG on SMP clusters: Performance Issues, Proceedings of the 11th Copper Mountain Conference on Multgrid Methods, Copper Mountain, Colorado, March 30-April4, 2003
10. __, Liming Li and Rune Holt, "A Preliminary Study of a Fully Fluid Coupled Particle Model", Proceedings of the Norwegian Petroleum Research Society, Bergen, Norway, Nov. 15-16, 2000

11. __, J.G. Osorio, H.Y. Chen and L.W. Teufel, "A Two-Domain, 3D, Fully Coupled Fluid-Flow/Geomechanical Simulation Model for Reservoirs with Stress-Sensitive Mechanical and Fluid-Flow Properties", SPE paper 47397, Proc. SPE/ISRM Eurock98 Conference, Trondheim, Norway, July 8-10, 1998
12. __, T.C. Poling, T.J. Brundage and Y. Xu, "Computer Simulation of Direct Scattered Fields in Fully Inhomogeneous Media with Irregular Bathymetry", Proc. SPIEE Automatic Object Recognition II, Vol 1700, pp 39-50, April, 1992
13. __, J.E. Dendy, S.F. McCormick, J.W. Ruge and T.F. Russell, "Multigrid Methods for Three-dimensional Petroleum Reservoir Simulation", SPE paper 18409, Proc. 10th SPE Symposium on Reservoir Simulation, Dallas, TX, pp 19-25, 1989
14. __, R. Chima and E. Turkel, "Comparison of Three Explicit Multigrid Methods for the Euler and Navier-Stokes Equations", Proc. 25th Aerospace Sciences Conference, AIAA, Reno, Nevada, Jan, 1987
15. High Order Multigrid Methods to Solve the Poisson Equations, in Multigrid Methods, H. Lomax, ed., NASA Conference Publication 2202, Ames Research Center, Moffett Field, CA, pp 275-284, 1982

Journal publications:

1. Ball, S., E. Barany, S. Schaffer, and K. Wedeward, "Nonlinear controllability of singularly perturbed models of power flow networks," International Journal of Pure and Applied Mathematics, Vol. 47, No. 2, pages 243-266, 2008
2. __, S. Ball, M. Marshall, K. Wedeward, An Integrated Approach to Modeling, Simulation, and Analysis of Critical Infrastructure Systems, Military Operations Research Society, PHALANX, Sept, 2005.
3. __, Guan, H., Schulze-Makuch, D., Pillai, S.D., The Effect of Critical pH on Virus Fate and Transport in Saturated Porous Medium, Ground Water Journal, Vol. 41, No.5, P.701-708, October, 2003
4. "Semi-Coarsening Multigrid Methods for Elliptic Partial Differential Equations with Highly Discontinuous and Anisotropic Coefficients", SIAM J. Sci. Statist. Comput., Vol 20, No 1, pp 228-242, 1998
5. __, B. Das, S. Steinberg and S. Weber, "Finite Difference Methods for Modeling Porous Media Flows", Transport in Porous Media, Vol 17, No 2, pp 171-200, 1994

6. , F. Stenger, "Multigrid-Sinc Methods", Second Copper Mountain Conference on multigrid methods Copper Mountain, Colo., Applied Mathematics and Computation, Vol 19, No 1-4, pp 311-319, July, 1986
7. "Higher Order Multigrid Methods," Math. Comp., Vol 43, No 167, pp 89-115, July, 1984.