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Education and Honors

- B.S. Mathematics, Rice University, *magna cum laude* (1967)
- Phi Beta Kappa, Rice University
- Woodrow Wilson Fellow
- N.S.F. Trainee
- Ph.D. in Mathematics, Rice University (1971)

Professional Experience

- Staff member, Mathematical Modeling and Analysis Group (T-7), Los Alamos National Laboratory, 1973-present, deputy group leader since 1996
- ASCI Solvers Project Leader, May 1999 - present

Major Professional Activities

- Associate Editor for SIAM J. Sci. Comput., Aug. 1994 - Dec. 2000
- Mentor in AMS-SIAM Mentoring Program, Dec. 1996 - Dec. 2000
- Los Alamos National Laboratory Achievement Award, Sept. 1999
- Co-chairman for Copper Mountain Multigrid Conference, April 2001 - present

Research Interests

- Research in numerical analysis and computer science with special interest in the numerical solution of partial differential equations.

Recent Publications

- *A Cell-Centered Lagrangian-Mesh Diffusion Differencing Scheme*, with J. E. Morel, M. Hall, S. White, J. Comp. Phys. 103(1992), 286-299.
- *A Semi-Coarsening Multigrid Algorithm for SIMD Machines*, with M. P. Ida, J. M. Rutledge, SIAM J. Sci. Stat. Comp. 13(1992), 1460-1469.

- *Multigrid methods for petroleum reservoir simulation on SIMD machines*, pp. 97-104, Proceedings of the Twelfth SPE Symposium on Reservoir Simulation, Feb. 28-March 3, 1993, New Orleans, LA.

- *Diffusion-Accelerated Solution of the Two-Dimensional Sn Equations with Bilinear-Discontinuous Differencing*, with J. E. Morel and T. A. Wareing, Nucl. Sci. Eng. 115(1993), pp. 304-319.

- *Grandchild of the Frequency Decomposition Multigrid Method*, with C. C. Tazartes, SIAM J. Sci. Stat. Comp. 16(1995), 307-319.

- *Revenge of the Semicoarsening Frequency Decomposition Method*, SIAM J. Sci. Stat. Comp. , 18(1997), pp. 430-440.

- *Semicoarsening Multigrid for Systems*, ETNA 6(1997), pp. 97-105.

- *Some Multigrid Algorithms for Elliptic Problems on Data Parallel Machines*, with V. A. Bandy and W.H. Spangenberg, SIAM J. Sci. Stat. Comp 19(1998), pp. 74-86.

- *The black box multigrid numerical homogenization algorithm*, with J.M. Hyman and J.D. Moulton, J.C.P. 142(1998), pp. 80-108.

- *Multigrid Applied to Implicit Well Problems*, with H. Tchelepi, Fifth European Multigrid Conference Special Topics and Applications, Institut fuer Computeranwendungen der Universitaet Stuttgart, Report N98/6, Sept. 1998.

- *Some Aspects of Multigrid for Mixed Discretizations*, pp. 80-86 in *Multigrid Methods VI, Proceedings of the Sixth Multigrid Conference, Ghent, Belgium, Sept. 27-30,1999*, Springer-Verlag, Berlin Heidelberg, 2000