

Joe F. Thompson: Mississippi State University

William L. Giles Distinguished Professor of Aerospace Engineering

Personal

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Education

PhD, Aerospace Engineering, Georgia Institute of Technology, 1971

MS, Aerospace Engineering, Mississippi State University, 1963

BS, Physics, Mississippi State University, 1961, "Highest Honors"

Employment

Department of Aerospace Engineering, Mississippi State University, 1964-Present

Marshall Space Flight Center, NASA, 1963-1964

Selected Publications

1. Handbook for Grid Generation, Joe F. Thompson, Bharat K. Soni, Nigel Weatherill (Eds), CRC Press, 1999.
2. Handbook for Computer Science and Engineering (Editorial Board, Editor for Computational Science Section), Allen Tucker (Ed.), CRC Press, 1997.
3. Numerical Grid Generation: Foundations and Applications, Joe F. Thompson, Z. U. A. Warsi, and C. W. Mastin, North-Holland, 1985. (Available on the Web at www.erc.msstate.edu)
4. Chrisochoides, N., Fox, G., and Thompson, J.F., "Menus-PGG: A Mapping Environment for Unstructured and Structured Numerical Parallel Grid Generation," Contemporary Mathematics, Volume 180, pp. 381-386, 1994.
5. "A Survey of Grid Generation Techniques and Systems with Emphasis on Recent Development," J.F. Thompson and B. Hamann, Surveys on Mathematics for Industry," Chp. 6, p. 289, Springer-Verlag, 1997.

Other Significant Publications

1. Luong, P.V., Thompson, J.F., and Gatlin, B., "Solution-Adaptive and Quality-Enhancing Grid Generation," Journal Of Aircraft, Vol. 3, Page 2, 1993.
2. Thompson, J.F., "The National Grid Project," Computing Systems in Engineering, Volume 3, Nos. 1-4, pp. 393-399, 1992.
3. Tu, Y., and Thompson, J.F., "Three-Dimensional Solution-Adaptive Grid Generation on Composite Configurations," AIAA Journal, Vol. 29, No. 12, pp. 2025-2026, 1991.
4. Warsi, Z.U.A., and Thompson, J.F., "Application of Variational Methods in The Fixed and Adaptive Grid Generation," Computers & Mathematical Applications, Vol. 19, No. 8-9, p. 31, 1990.
5. Thompson, J.F., "A General Three-Dimensional Elliptic Grid Generation System on a Composite Block Structure," Computer Methods in Applied Mechanics

and Engineering, Vol. 64, p. 377, 1987.

Synergistic Activities

1. Founding Director, NSF Engineering Research Center (ERC) for Computational Field Simulation at Mississippi State University
2. Led the formation of the multi-university team that teamed with Nichols Research and Raytheon/E-Systems to win the support contracts for Programming Environment & Training (PET) at three of the four DoD HPC Major Shared Resource Centers (MSRCs) as part of the DoD HPC Modernization Program, and now leads this team for the MSRC at the Army Engineer Research & Development Center in Vicksburg, Mississippi.
3. Editorial board, Journal of Computational Physics
4. Appointed by President Clinton to the President's Information Technology Advisory Committee (PITAC).