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75. **Mavriplis, D. J.,** "Zonal Multigrid Solution of Compressible Flow Problems on Unstructured and Adaptive Meshes", *Paper presented at the Fourth Copper Mountain Conference on Multigrid Methods,* Cooper Mountain, Colorado, April 1989.

76. Mavriplis, D. J., and Jameson, A. and Martinelli, L., "Multigrid Solution of the Navier-Stokes Equations on Triangular Meshes", *AIAA Paper 89-0120*, 27th AIAA Aerospace Sciences Meeting, Reno NV, January 1989.

77. Mavriplis, D. J., "Adaptive Mesh Generation for Viscous Flows Using Delaunay Triangulation", *Proceedings of the 2nd International Conference on Numerical Grid Generation in Computational Fluid Dynamics,* Miami FL, Dec 1988, Numerical Grid Generation in Computational Fluid Mechanics '88, S. Sengupta, J. Hauser, P.R. Eiseman, J.F. Thompson (Eds.), Pineridge Press, Swansea, 1988.

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79. **Mavriplis, D. J., and Jameson, A.,** "Multigrid Solution of the Euler Equations on Unstructured and Adaptive Meshes", *Multigrid Methods, Lecture Notes in Pure and Applied Mathematics,* Ed. S. F. McCormick, Marcel Dekker Inc., pp. 413-429, May 1988.

80. Mavriplis, D. J., "Multigrid Solution of the Two-Dimensional Euler Equations on Unstructured Triangular Meshes", *AIAA paper 87-0353*, presented at the 25th AIAA Aerospace Sciences Meeting and Exhibit, Reno NV, January 1987.

81. Jameson, A., and Mavriplis, D. J., "Finite-Volume Solution of the Two-Dimensional Euler Equations on a Regular Triangular Mesh", *AIAA paper 85-0717*, presented at the 23rd AIAA Aerospace Sciences Meeting and Exhibit, Reno NV, January 1985.

Recent Conference Talks without Papers

1. "Goal-oriented hp-adaptive Discontinuous Galerkin Methods for the Compressible Euler Equations on Unstructured Meshes", presented by Li Wang, 10th Copper Mountain Conference on Iterative Methods, Copper Mountain, CO, April 6-11, 2008.

2. "A Multigrid Solver for High-Order Discontinuous Galerkin Discretizations of the Compressible Navier-Stokes Equations", presented by K. Shahbazi, 10th Copper Mountain Conference on Iterative Methods, Copper Mountain, CO, April 6-11, 2008.

3. "Discontinuous Galerkin Methods and Sensitivity Analysis for Computational Fluid Dynamics", Talk delivered at the NCAR-UW Science Days workshop, Steamboat Springs, CO, November 2007.

4. "Time-Implicit Solution of the Lattice Boltzmann Equation", Talk delivered by J. Liu at the 3rd International Conference on Mesoscopic Methods in Engineering and Science (ICMMES), Hampton, VA, July 2006.

5. "Solution of high-order discontinuous Galerkin methods using a combined h-p multigrid approach", Talk delivered by D. Mavriplis at 9th Iterative Methods Conference, Copper Mountain, CO, April 2006.

6. "High-Order Spectral Discontinuous Galerkin Methods using an hp-Multigrid Approach", Talk delivered by C. Nastase at SIAM Annual Meeting, New Orleans LA, June 2005.

7. "Multigrid Solution of the Lattice Boltzmann Equation", Talk delivered by D. Mavriplis at 12th Copper Mountain Multigrid Conference, Copper Mountain, CO, April 2005.

8. "High-Order Spectral hp-Multigrid Methods on Unstructured Grids ", Talk delivered by C. Nastase at 12th Copper Mountain Multigrid Conference, Copper Mountain, CO, April 2005.

9. "Implicit Solution of High-Order Accurate Discontinuous Galerkin Discretizations of Unsteady Wave Equation Using Spectral Multigrid", Talk delivered by L. Wang at 12th Copper Mountain Multigrid Conference, Copper Mountain, CO, April 2005.

Recent Invited Talks

1. "Computational Science at the University of Wyoming", Presentation to Joint NCAR-UW planning committee, October 2008.

2. "Adjoint-Based Sensitivity Analysis for Computational Fluid Dynamics", Los Alamos National Laboratory, July 2008.

3. "Unstructured Grid Technology for CFD: Flow Solver Perspectives", Unstructured Grid Technology for CFD State-of-the-art, State-of-the-practice and Future Directions, REEF Conference Center, Eglin, FL Organized By: CFD Functional Area, PET Program DoD, HPCMP, UAB. March 26-27, 2008.

4. "Petaflops Opportunities for the NASA Fundamental Aeronautics Program (Summary)", Summary talk delivered to open meeting on High Performance Computing Issues in Aerospace Engineering, organized by invitation of NASA Associate Administrator for Aeronautics, NASA Headquarters, Washington DC, December 5, 2007.

5. "Aerodynamic Analysis and Design using an Unstructured Mesh High-Fidelity Approach"; Talk delivered at the US Air Force Academy, Colorado Springs, CO, October 2007.

6. "Some Long Term Experiences in HPC Programming for Computational Fluid Dynamics Problems", Talk delivered at Symposium on Turbulence and Dynamos at Petaspeed, National Center for Atmospheric Research (NCAR) Boulder CO, October 2007

7. "Computational Science Research Areas at the University of Wyoming", Talk delivered at the NCAR Computational and Information Science Laboratory (CISL) Division retreat, Ft Collins CO, April 2007.

8. Overview of the NSU3D Unstructured RANS Solver for the HI-ARMS Near-Body Compute Engine Review", Talk delivered via teleconference to the US Army Aviation and Missile Research Development and Engineering Center (AMRDEC) personnel, NASA Ames Research Center, August 2006.

9. "Parallel Performance Investigations of an Unstructured Multigrid RANS Solver on the NASA Columbia Supercomputer", NASA Ames Research Center, Moffett Field CA, July 2006.

10. "Computational Aerodynamics for Aerospace Vehicle Analysis and Design", Talk delivered at the University of British Columbia, Vancouver BC, Canada, February 2006.

11. "Recent Progress in High-Order CFD Methods and Aeroelastic Calculation Methods using Unstructured Meshes", Talk delivered at Boeing Commercial Aircraft, Seattle WA, November 2005.

12. "Progress in Unstructured Mesh Techniques", Talk delivered at Fluent Inc., Lebanon NH, July 2005.

13. "Exploring Alternative Approaches to CFD", Talk delivered at the National Institute of Aerospace, Hampton VA, June 2005.

14. "Towards and Accurate and Efficient Aeroelastic Simulation Capability", Talk delivered at NASA Langley Research Center, Hampton VA, June 2005.

15. "The NSU3D Unstructured Mesh Solver for Analysis and Design Problems", Talk delivered at Lockheed Martin Aeronautics, Marietta GA, May 2005.

16. "Towards and Accurate and Efficient Aeroelastic Simulation Capability", Talk delivered at AFRL, Wright Patterson Air Force Base, Dayton OH, March 2005.

17. "The Potential for Lattice Boltzmann Methods in Multiphase and Geophysical Fluid Flows", Talk delivered in the Department of Chemical Engineering, University of Wyoming, Laramie WY, November 2004.

18. "Exploring Alternative Approaches to CFD". Presentation at the Workshop entitled: *Pacing CFD: Technology Drivers and Barriers to Progress*, Department of Aeronautics and Astronautics, Stanford University, Stanford, CA, November 19, 2004.

19. "Efficient High-Order Accurate Methods Using Unstructured Grids for Hydrodynamics and Acoustics", Presentation at the ONR Turbulence and Wakes Program Review, Baltimore MD, September 30, 2004.

20. "Recent Advances in Unstructured Mesh Techniques for CFD", Invited talk delivered at the DLR (German Aerospace Center), Braunschweig, Germany, July 2004.

21. "Multigrid Solution of the Steady-State Lattice Boltzmann Equation", Invited talk delivered at the First International Conference on Mesoscopic Methods in Science and Engineering (ICMMES), Braunschweig, Germany, July 2004.

22. "Time Accurate Methods for CFD on Unstructured Meshes", Talk delivered at NASA Langley Research Center, Hampton VA, June 2004.

23. "Recent Advances in Unstructured Mesh Techniques for CFD", Talk delivered at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Dayton OH, June 2004.

24. "Unstructured Mesh Techniques in Computational Fluid Dynamics", Invited talk delivered at the National Center for Atmospheric Research (NCAR), Boulder CO, May 2004.

25. "Techniques for Unstructured Mesh Deformation", Invited talk delivered at Minisymposium on Adaptivity and Solvers with Applications in Geoscience, Copper Mountain CO, April 2004.

26. "Solution of High-Order Discontinuous Galerkin Methods using a Spectral Multigrid Approach", Talk delivered at the Copper Mountain Conference on Iterative Methods, Copper Mountain CO, April 2004.

27. "Unstructured Mesh Methods for Steady and Unsteady Problems", Talk delivered at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Dayton OH, March 2004.

28. "Unstructured Multigrid Methods in Computational Fluid Dynamics", Talk delivered in the Department of Mathematics, University of Wyoming, Laramie WY, November 2003.

29. "Unstructured Mesh Methods for Steady and Unsteady Problems", Talk delivered at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Dayton OH, October 2003.

30. "Drag Prediction using NSU3D", Presentation of contributed results at the 2nd AIAA Drag Prediction Workshop, Orlando, FL, June 2003.

31. "Unstructured Mesh Related Issues in CFD-based Analysis and Design", 11th International Meshing Roundtable, Ithaca NY, September 2002.

32. "Transonic Drag Prediction Using an Unstructured Multigrid Solver", presentation of contributed results at the 1st AIAA Drag Prediction Workshop, Anaheim, CA, June 2001.

33. "The Development of Unstructured Grid Methods for Computational Aerodynamics", Department of Mechanical and Aerospace Engineering, Cornell University, September 2002.

34. "Comparisons of Linear and Non-Linear Multigrid Methods for Unstructured Grid Problems", SIAM 50th Anniversary and Annual Meeting, Philadelphia, July 2002.

35. "Parallel Unstructured Mesh Agglomeration Solvers", Argonne National Laboratory, Argonne, IL, April 2002.

36. "The Development of Unstructured Grid Methods for Computational Aerodynamics", Department of Aeronautical and Astronautical Engineering, University of Illinois at Urbana-Champaign, April 2002.

37. "Multigrid Approaches to Non-Linear Diffusion Problems on Unstructured Meshes", DOE sponsored Workshop on Solution Methods for Large-Scale Nonlinear Problems, Pleasanton CA, July 2000.

38. "Unstructured Multigrid Techniques", Invited paper delivered at the European Multigrid Conference, Stuttgart, Germany, October 1996