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Career Objective

Towards more accurate and efficient simulation of multi-physics phenomena

Education

Ph.D. in Aerospace Engineering August 1999 - May 2005
The University of Texas at Austin
M.S. in Mechanical Engineering Mar. 1997 - Feb. 1999
Korea Advanced Institute of Science and Technology, Korea
B. Eng. in Mechanical Engineering Mar. 1992 - Feb. 1996
Yeungnam University, Korea

Publications (published)

1. H. T. Ahn and M. Shashkov, Multi-material interface reconstruction on generalized polyhedral meshes, LA-UR-07-0656, Los Alamos National Laboratory, 2007
2. H. T. Ahn and G. F. Carey, An enhanced polygonal finite-volume method for unstructured hybrid meshes, International Journal for Numerical Methods in Fluids, Published Online: 30 Nov 2006
3. H. T. Ahn and Y. Kallinderis, Strongly coupled flow/structure interactions with a geometrically conservative ALE scheme on general hybrid meshes, Journal of Computational Physics, Volume 219, Pages 671-696, 2006
4. Y. Kallinderis and H. T. Ahn, Incompressible Navier-Stokes method with general hybrid meshes, Journal of Computational Physics, Volume 210, Pages 75-108, 2005, Ranked 5th in the Top 25 Hottest Articles, Journal of Computational Physics, Jul.-Sep. 2005
5. H. T. Ahn, A new incompressible Navier-Stokes method with general hybrid meshes and its application to flow/structure interactions, Ph.D. Thesis, The University of Texas at Austin, TX, 2005
6. H. T. Ahn and Y. Kallinderis, CFD Investigation of the Effect of Current Turbulence on the Hydrodynamic Forces on a Cylinder, 24th International Conference on Offshore Mechanics and Arctic Engineering (OMAE 2005), June 2005, Halkidiki, Greece
7. Y. Kallinderis and H. T. Ahn, Strongly Coupled Fluid-Structure Interactions via a New Navier-Stokes Method for Prediction of Vortex-Induced Vibrations, 24th International Conference on Offshore Mechanics and Arctic Engineering (OMAE 2005), June 2005, Halkidiki, Greece

Awards and Honors

- Ranked 5th in the Top 25 Hottest Articles, Journal of Computational Physics, Jul.-Sep. 2005; Y. Kallinderis and H. T. Ahn, Incompressible Navier-Stokes method with general hybrid meshes, Journal of Computational Physics, Volume 210, Pages 75-108, 2005
- Rotary Foundation Ambassadorial Scholarship, Rotary International, 1999-2002
- State Scholarship, Korea Advanced Institute of Science and Technology (KAIST), Korea 1997-1999
- Merit-based Scholarship (Ranked No. 1 among the class of 300 in the academic years of 1994 – 1996), Yeungnam University, Korea, 1994-1996

Activity and Service

- Co-organizer for Mini-symposium on Modeling and simulation of multi-phase and multi-material flows (Organizers: Hyung Ahn, Raphael Loubere and Sam Schofield), The 9th U.S. National Congress on Computational Mechanics, San Francisco, CA, July 23-26, 2007
- Reviewer for the International Journal for Numerical Methods in Fluids, and Communications in Numerical Methods in Engineering
- Member of U.S. Association for Computational Mechanics (USACM), Society for Industrial and Applied Mathematics (SIAM), American Institute of Aeronautics and Astronautics (AIAA), American Society Of Mechanical Engineers (ASME)