

Preface

This special collection of papers is based on some of the invited presentations at the Fifth U.S.-Japan Symposium on Flow Simulation and Modeling that was held on March 29–31, 2000 at Rice University in Houston, TX. A large number of the other invited papers will be published in a special issue of the *International Journal of Computational Fluid Dynamics*.

The Symposium was sponsored by the Rice University George R. Brown School of Engineering and the Department of Mechanical Engineering and Materials Science. The Organizing Committee consisted of Mutsuto Kawahara (Chuo University), Tayfun Tezduyar (Rice University), and Thomas Hughes (Stanford University).

The topics covered in this special collection of papers include determination of finite element stabilization parameters and length scales; extended finite element techniques based on level set functions applied to two-fluid flows; finite element flow solvers for ship hydrodynamics applications; numerical solutions of Cauchy-Riemann equations; hierarchical divergence-free bases applied to particulate flows; aerodynamic interactions between parachutes; mesh moving techniques; and fluid-particle interactions.

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