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Nota di contenuto	Preface -- Hughes, Laudation at the Banquet for Tayfun Tezduyar's 60th Birthday Conference, Tokyo, Japan, March 2014 -- Part I–CFD: Methods and Applications -- Gimenez, Morin, Nigro, Idelsohn, Numerical Comparison of the Particle Finite Element Method against an Eulerian Formulation -- Hillman, Chen, An Implicit Gradient Meshfree Formulation for Convection-Dominated Problems -- Nomura, Hasebe, Kobayashi, The Advection-Diffusion Analysis of Smoke Flows around a Body -- Kotteda, Mittal, Finite Element Computation of Buzz Instability in Supersonic Air Intakes -- Castorrini, Corsini, Rispoli, Venturini, Takizawa, Tezduyar, SUPG/PSPG Computational Analysis of Rain Erosion in Wind-Turbine Blades -- Xie, Xiao, The Multi-Moment Finite

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Fluid–Structure Interaction Simulations of Wind Turbines.

Sommario/riassunto

This contributed volume celebrates the work of Tayfun E. Tezduyar on the occasion of his 60th birthday. The articles it contains were born out of the Advances in Computational Fluid-Structure Interaction and Flow Simulation (AFSI 2014) conference, also dedicated to Prof. Tezduyar and held at Waseda University in Tokyo, Japan on March 19-21, 2014. The contributing authors represent a group of international experts in the field who discuss recent trends and new directions in computational fluid dynamics (CFD) and fluid-structure interaction (FSI). Organized into seven distinct parts arranged by thematic topics, the papers included cover basic methods and applications of CFD, flows with moving boundaries and interfaces, phase-field modeling, computer science and high-performance computing (HPC) aspects of flow simulation, mathematical methods, biomedical applications, and FSI. Researchers, practitioners, and advanced graduate students working on CFD, FSI, and related topics will find this collection to be a definitive and valuable resource.