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COMPUTATIONAL FLUID DYNAMICS (CFD) AND FLUID-STRUCTURE INTERACTION (CFSI): METHODS AND APPLICATIONS

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MINISYMPOSIUM

This symposium will bring together researchers from the engineering community to discuss their work on computational fluid dynamics (CFD) and fluid-structure interaction (CFSI). The symposium will cover both computational methods and engineering applications. Topics will include but not limited to theoretical developments, novel computational frameworks, new discretization methods, high-order approaches, moving-mesh methods such as the arbitrary Lagrangian-Eulerian (ALE) and space-time (ST) methods, isogeometric analysis (IGA), FSI coupling strategies, Eulerian and ALE hydrocodes, high-performance computing, and applications to complex problems in engineering, science, and medicine. Recent trends in machine learning techniques for CFD and CFSI will also be of interest in this symposium. The symposium will provide a venue for researchers from both academia and industry to discuss the most recent advances and emerging research directions in this field.