IGA FOR FLUIDS AND FLUID-STRUCTURE INTERACTION

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ABSTRACT

This mini-symposium provides a platform for discussing recent progress in applying Isogeometric Analysis (IGA) to Computational Fluid Dynamics (CFD) and Fluid-Structure Interaction (FSI) in different areas, including biomedical, aerospace, manufacturing, automotive, marine, renewable enrgy, and other applications. Topics of interest include, but are not limited to, immersed and unfitted methods, ALE methods, reduced-order models, auxiliary field interaction (e.g., FSI with contact, fracture, or elasto-capillary interactions), artificial intelligence and machine learning approaches, novel iterative solution methods, software development, mesh generation and stabilized techniques. Contributions related to other coupled problems and innovative applications are also welcomed.