PDE Theory for Fluid-Structure Interactions Special Session B8

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This special session focuses on applied problems in the analysis of partial differential equations (PDEs) related to the interactions between a fluid and a solid. We expect contributions from researchers studying coupled models where the structure can be represented through the theory of elasticity (e.g., plates, beams, bulk solids), while the fluid may be included through the Navier-Stokes Equations or alternative theories (e.g. Stokes, Euler, potential flow). The session is also open to talks relating to analytical questions of fluids or solids independently, as they might pertain to applications in coupled fluid-structure systems. For instance, questions about well-posedness, regularity, asymptotic behavior are welcome. Additionally, techniques and results dealing with relevant nonlinear modeling, approximation methods, or computation of numerical solutions and stability are also among the purposes of the session.

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