

**IS title:** Particle methods for fluid-structure interactions

**Organizer:** Moubin Liu & Aman Zhang

Moubin Liu, Peking University, China

Aman Zhang, Harbin Engineering University, China, zhangaman@hrbeu.edu.cn

The recent decades have witnessed rapid advances in particle methods such as smoothed particle hydrodynamics, dissipative particle dynamics and molecular dynamics. Particle methods have different numerical schemes from the grid-based numerical methods, and have attracted more and more researchers from all over the world for various applications, especially in modeling fluid-structure interactions (FSI) problems. This invited sessions mainly focuses on the modeling of fluid-structure interaction problems using particle methods, include, but not limited to 1) the Smoothed Particle Hydrodynamics (SPH), 2) the Discrete Element Method (DEM), 3) Moving Particle Semi-implicit Method (MPS), 4) Material Point Method (MPM), 5) the Dissipative Particle Dynamics (DPD), 6) the Molecular Dynamics (MD) .