Special Issue

Discrete Multiphysics: Modelling Complex Systems with Particle Methods

Message from the Guest Editor

Particle methods have proven their versatility and effectiveness in a variety of applications, ranging from modelling of molecules to the simulation of galaxies. Their power is even amplified when they are coupled together within a discrete multiphysics framework. Moreover, particle methods also couple extremely well (better than mesh-based algorithms) with artificial neural networka, as recent studies on deep multiphysics show. In this Special Issue, we would very much appreciate contributions that show the power of particle methods in addressing multiphysics problems (including multiphase and complex flows). We specifically target methods such as smoothed particle hydrodynamics (SPH), the lattice spring model (LSM), peridynamics (PD) and the discrete element method (DEM) but other 'members of the family' such as Brownian dynamics (BD), dissipative particle dynamics (DPD), and molecular dynamics (MD) are welcome as well.

Guest Editor

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Message from the Editor-in-Chief

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