

## Special Issue

# Advances in the Smoothed Particle Hydrodynamics (SPH) Method for Complex Flows

### Message from the Guest Editors

SPH is a purely Lagrangian mesh-free numerical method that has unique advantages in dealing with complex flow problems containing free surfaces or multi-phase interfaces. With the continuous improvement of computational accuracy and stability, the SPH method has been widely used in many fields of science and engineering. This Special Issue, entitled "Advances in Smoothed Particle Hydrodynamics (SPH) Method for Complex Flows," aims to cover recent advances in the development and application of SPH for complex flows. Topics will include, but are not limited to, methods and/or applications in the following areas:

- The application of the SPH method to complex fluid flow problems in chemical engineering;
- Recent advances in SPH and other advanced mesh-free methods;
- Coupling of the SPH method with PD, DEM, MPM, and other methods to solve complex flow problems;
- Applications of SPH for the simulation of soft materials, fluid–structure interaction, geomechanics, fluid–particle interaction, multi-phase interactions, additive manufacturing, nano-, non-Newtonian, and visco-elastic fluids, etc.

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### Guest Editors

Dr. Xiangwei Dong

Dr. Man Hu

Dr. Long Feng

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### Deadline for manuscript submissions

closed (20 December 2024)



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