

Special Issue

Meshless Methods for Water Dynamics and Complex Flows

Message from the Guest Editors

Computational Fluid Dynamics (CFD) is with no doubt a fundamental tool in both science and engineering. It is ubiquitous in almost any research or design involving fluid flows. Historically, mesh-based methods have been the ones that have received the largest research efforts. However, meshless methods are a promising tool to solve some of the drawbacks of mesh-based methods. In particular, mesh generation is currently one of the most significant bottlenecks in CFD applications, since generally the mesh generation phase constitutes the dominant cost in terms of both human intervention and time. In this framework, meshless methods are specially suited for problems with large deformations of the computational domain. In the context of CFD, Smoothed Particle Hydrodynamics (SPH) is the most widely used meshless method for flow simulations. [...] For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/water/special_issues/Meshless_Methods

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In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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Dr. Jean-Luc PROBST

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