Special Issue

Coastal Engineering and Wave Hydrodynamics Based on Meshless Methods

Message from the Guest Editors

Meshfree methods have been widely applied to coastal engineering and wave hydrodynamics because they are convenient for simulating flows with large deforming, free surfaces, multi-phase interfaces, and moving boundaries. The main goal of this research topic is to provide a platform for researchers to exhibit the advances of theory and applications of meshfree methods in coastal engineering and wave hydrodynamics. Topics of interest to this collection include, but are not limited to, the following:

- Applications in coastal engineering;
- Applications in ocean engineering;
- The application of interactions between wave and structure;
- Applications in wave energy;
- Applications in submarine landslides;
- Boundary conditions of meshless methods in ocean engineering;
- Improved computational models and techniques of meshless methods;
- Theoretical and mathematical aspects of meshless methods;
- Diversified meshless applications;
- Coupling meshless methods with gird-based methods.

Keywords: meshless method; wave–structure interactions; multi-phase flows; wave energy; marine gas hydrate; submarine landslide; underwater robots

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Deadline for manuscript submissions

31 December 2025

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/228340

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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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