Special Issue

Numerical Modelling in Hydraulic Engineering

Message from the Guest Editor

Numerical modelling has significantly advanced our understanding and optimization of coastal and hydraulic engineering processes. The integration of computational techniques with field applications has enabled researchers and engineers to develop predictive models for wave dynamics, sediment transport, and structural resilience in coastal and offshore environments.
The scope of the special issue includes, but is not limited to, the following topics:

The advanced numerical modelling of waves, currents, and sediment transport in coastal and estuarine systems;
Fluid–structure interaction modelling for breakwaters, seawalls, and offshore structures;
Computational approaches to risk assessment, hazard prediction, and climate change adaptation;
Large-scale hydrodynamic simulations and their applications in harbor and offshore engineering;
The modelling-based optimization of shore protection, dredging strategies, and nature-based solutions;
Coupled hydro-morphodynamic models for coastal erosion and beach evolution studies.

Guest Editor

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Deadline for manuscript submissions

20 September 2025

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/230719

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Dr. Jean-Luc PROBST
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