Special Issue

Experimental and Numerical Investigation of Flow–Structure Interactions in Hydraulic, Coastal, and Ocean Engineering

Message from the Guest Editors

This Special Issue focuses on advancing research into flow–structure interaction (FSI) phenomena in hydraulic, coastal, and ocean environments. The scope spans experimental, numerical, and hybrid methodologies to address challenges in fluid dynamics, structural resilience, and multiphysics modeling. Key topics include (1) wave–structure interactions, (2) sediment transport, (3) offshore/coastal infrastructure performance, and (4) extreme event impacts (e.g., storms, tsunamis). The purpose of this Special Issue is to foster interdisciplinary collaboration, bridge gaps between laboratory-scale experiments and field-scale simulations, and promote sustainable engineering solutions for fluid-driven systems. By linking hydrodynamic analyses to socio-economic metrics—such as cost–benefit assessments of nature-based solutions or policy-guided coastal management—this Issue advances tools for measuring and monitoring sustainability. It also highlights regulatory and technological innovations to balance ecological preservation with infrastructural demands, supporting integrated approaches to sustainable development in aquatic environments.

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I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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