

Special Issue

Mathematical Modeling of Sediment Transport in Coastal Areas

Message from the Guest Editor

Investigation of the mechanisms governing the interactions between waves, currents, and sediments is necessary for engineers to design the ports and protect the shores, for the scientists to provide an insight into the unknown coastal processes, and for managers and environmental activists to manage the coast and protect the shorelines. Mathematical models as strong tools to study the coastal phenomenon must be developed to reveal the unknown physical aspects of the coastal processes and sediment dynamics. In this Special Issue, we invite scientists working on different aspects of sediment transport, in muddy, sandy or mixed environments with a focus on mathematical (numerical/analytical) models, to share their most recent results/findings/approaches, and give reviews or examples encompassing different aspects of wave–current–sediment interactions and sediment dynamics in coastal zones. Papers may deal with wave, current, and sediment analysis, numerical modeling or analytical solutions and should be supported by experimental/field studies.

Guest Editor

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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.

Editor-in-Chief

Dr. Jean-Luc PROBST

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