Special Issue

Scour around Offshore Structures: Process, Evolution and Protection

Message from the Guest Editors

The scour of sediments around offshore structures by wave currents is the most important factor contributing to their failure. Seabed soil is constantly liquefied and re-consolidated in complex marine environments, resulting in continuous changes in the properties of seabed soil. Traditional scour protection measures mostly exist along the river pile scour protection measures, which cannot be effective in the long term in hydrodynamic and soil environments. Therefore, revealing the scouring mechanism under the coupling of the seabed soil, sediment, and wave–current are crucial for the design and protection of offshore structures. In this Special Issue, we invite submissions on scour mechanisms and scour protection methods for offshore hydraulic structures in order to solve this problem under the complex fluid–structure–soil interaction and develop effective scour protection methods. This Special Issue will cover research on scour macroscopic mechanisms, scour protection methods, scour model tests, and numerical simulations of scour for offshore structures. New findings, methods, tools, and improved models for other studies of water–soil systems are welcome.

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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

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