

## 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.

---

### Guest Editors

Prof. Dr. Xuguang Chen

College of Engineering, Ocean University of China, Qingdao 266000, China

Prof. Dr. Fayun Liang

Department of Geotechnical Engineering, Tongji University, 1239 Siping Road, Shanghai 200092, China

---

### Deadline for manuscript submissions

closed (20 February 2024)



## Water

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0



[mdpi.com/si/181303](https://mdpi.com/si/181303)

*Water*

Editorial Office

MDPI, Grosspeteranlage 5

4052 Basel, Switzerland

Tel: +41 61 683 77 34

[water@mdpi.com](mailto:water@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[water](https://mdpi.com/journal/water)





# Water

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0



[mdpi.com/journal/  
water](https://mdpi.com/journal/water)



## About the Journal

### 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

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

#### Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)