

## Special Issue

# Climate Change Impacts to Coastal Hydrodynamics and Vulnerability Assessment

### Message from the Guest Editors

Coastal areas are highly vulnerable systems threatened by marine flooding and erosion, and the related impacts are expected to increase in the future in view of climate change. Moreover, the vulnerability connected to coastal hazards needs to be continuously investigated to mitigate the risks to human health, economic activities, cultural heritage ecosystem services and the environment. This Special Issue aims to highlight the recent progress and helps to define the future directions of climate change impacts on coastal processes and vulnerability. Potential topics include, but are not limited, to the following:

- Statistical methods of the main marine forcings (e.g., wind waves, tides, storm surges) considering the future climate.
- The analysis of coastal hydrodynamics and nearshore processes (e.g., wave breaking, coastal sediment transport).
- The modeling of coastal impacts such as dune overwash and breaching, as well as wave overtopping.
- Coastal vulnerability studies, including the assessment of hazard and risk indexes.
- Short- and long-term Integrated Coastal Zone Management (e.g., decision-making strategies).
- The analysis of case studies.

---

### Guest Editors

Prof. Dr. Piero Ruol

ICEA Department, University of Padova, Via Ognissanti 39, 35129 Padova, Italy

Dr. Chiara Favaretto

Department of Civil, Environmental and Architectural Engineering ICEA, University of Padova, Padova, Italy

---

### Deadline for manuscript submissions

closed (30 September 2023)



## Water

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.0



[mdpi.com/si/163236](https://mdpi.com/si/163236)

*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)