Special Issue

Wave–Seabed–Structure Interaction

Message from the Guest Editors

Advances in offshore energy highlight the need to understand complex **wave/current–seabed–structure interactions** to ensure the safety and resilience of marine infrastructure. This Special Issue seeks high-quality research advancing the fundamental understanding and assessment of these interactions. We invite original research articles and reviews on:

- **Hydrodynamics & Seabed:** Marine geology, wave/current loading, and seabed characterization.
- **Seabed Interactions:** Liquefaction, scour, and sediment transport.
- **Structural Response:** Dynamic analysis of pipelines, monopiles, and floating systems; wave–soil–structure interaction (WSSI).
- **Methodologies:** Field monitoring, centrifuge/flume tests, and numerical modeling (CFD, FEM, DEM).
- **Innovation:** AI/ML in geotechnics, protection methods, and resilience against extreme storms, sea-level rise, and seismic hazards.

Keywords: Marine geotechnics; liquefaction; scour; foundation stability; offshore renewable energy; numerical modeling; physical modeling; field monitoring; artificial intelligence; climate change impacts; coastal resilience.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Humans have an enduring love of the sea, a love that is expressed most fervently in a narrow strip where the oceans meet the land: our planet's coasts. Today's coasts face a formidable plethora of anthropogenic pressures that can, if unfettered, hollow out the very fabric and ecological resilience that feed humanity's 'appetite' for coasts in addition to the critical ecosystem services that they provide. Conserving, restoring, and managing the foibles of rapacious coastal love are not trivial tasks: they require us to truly understand how coastal systems work. This is the chief motivation of this journal.

Topics: field observations, manipulative field or laboratory experiments, modeling, theoretical advances, etc. *Coasts* encourages diversity and critical thinking in all forms.

Editor-in-Chief

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