

## Special Issue

# Advances in Aerodynamic-Hydrodynamic Effects and Fluid-Structure Interaction Mechanisms for Offshore Wind Turbines

### Message from the Guest Editors

This Special Issue seeks to bridge these gaps by synthesizing cutting-edge research across numerical modeling, experimental validation, and data-driven innovations into a cohesive framework. Contributions may explore high-fidelity simulations of coupled aerodynamic-hydrodynamic structural systems, experimental techniques for synchronously capturing wind-wave-platform interactions in basin tests, and hybrid approaches that integrate machine learning with physics-based models to refine turbulence closure schemes or predict fatigue hotspots. A special emphasis is placed on methodologies that unify multiscale flow physics—from blade tip vortices to platform surge-pitch dynamics—and translate these insights into design guidelines for next-generation floating turbines. By fostering cross-disciplinary dialog among fluid mechanists, marine engineers, and renewable energy specialists, this issue aims to catalyze breakthroughs in the predictive accuracy, operational resilience, and cost-effective deployment of offshore wind technologies.

### Guest Editors

Prof. Dr. Tian Li  
Prof. Dr. Zhenqing Liu  
Prof. Dr. Shaopeng Li

### Deadline for manuscript submissions

1 July 2026



## Journal of Marine Science and Engineering

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## About the Journal

### Message from the Editor-in-Chief

*Journal of Marine Science and Engineering (JMSE*, ISSN: 2077-1312) focuses on research in the fields of Ocean Engineering, Coastal Engineering, Physical Oceanography, Geological Oceanography, Marine Biology, and Marine Environmental Science. It publishes reviews, regular research papers, and short communications, as well as Special Issues on particular subjects. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the maximum length of the papers.

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### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.5 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).