

## Special Issue

# Advances in Marine Hydrodynamics and Multiphysics CFD: Innovations in Analysis, AI Applications and Energy Systems

### Message from the Guest Editors

This Special Issue focuses on the latest advancements in marine hydrodynamics and multiphysical computational fluid dynamics (CFD), emphasizing its transformative applications across a range of marine and ocean engineering challenges. Topics of interest include the integration of the fluid–structure interaction, heat transfer, turbulence, and multiphase flow phenomena with emerging technologies such as artificial intelligence (AI) for enhanced modeling and analysis. We aim to address critical topics, such as cryogenic fluid dynamics, fuel cell systems, renewable energy devices, and advanced propulsion systems, as well as their applications in extreme marine environments. Studies combining numerical simulations, AI-based optimizations, experimental validations, and industrial case studies are highly encouraged. This Special Issue seeks to foster innovation in solving complex problems related to energy efficiency, environmental sustainability, and structural integrity in marine and offshore engineering.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 June 2025)



## Journal of Marine Science and Engineering

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## About the Journal

### Message from the Editor-in-Chief

The *Journal of Marine Science and Engineering* (JMSE, ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

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### Editor-in-Chief

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