

Special Issue

Hydrodynamic Analysis on Ship Performance

Message from the Guest Editors

In the last decade, with the rapid development and successful application of computational fluid dynamics (CFD), experimental fluid dynamics (CFD), and machine learning (ML) techniques in ship hydrodynamics, incredible—even breakthrough—progresses have been achieved in the prediction and assessment of ship hydrodynamic performances in calm water and in waves. This Special Issue intends to publish the latest progresses and achievements in research regarding the hydrodynamic analysis of ship performances through the use of methods, and their combinations, based on CFD, EFD, and ML techniques. We invite papers concerning topics including, but not limited to, the following:

- Resistance and propulsion in calm water and in waves;
- Motion and derived responses in waves;
- Maneuvering in calm water and in waves;
- Intact stability and damaged stability in waves;
- Ship hydrodynamics in restricted waters;
- Scale effects and full-scale ship hydrodynamics;
- Performance prediction and analysis with combined CFD/EFD, CFD/AI, etc.

Guest Editors

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Deadline for manuscript submissions

closed (5 December 2022)



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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.

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).