

Special Issue

Ship Motions and Wave Loads

Message from the Guest Editors

The prediction of ship motions and loads induced by waves is a central problem of hydrodynamics and is fundamental for structural design. A wide variety of potential flow theories have been developed to estimate motions, wave loads, and the hydroelasticity of ships in waves. Recently, the computational fluid dynamics (CFD) technique has also rapidly developed as a novel tool to address these problems. Tank model tests and sea trials have also been conducted to experimentally investigate the seakeeping and wave loads of ships. However, due to the complexity of interactions between water waves and arbitrary shape moving bodies in the presence of free surface and forward speed, the problems of wave-induced ship motions and loads are still far from being satisfactorily addressed, especially for problems involving high forward speed, harsh weather, instantaneous wetted surface, irregular sea waves, and strong nonlinear slamming loads.

This Special Issue aims to gather the latest developments in the prediction of ship seakeeping and wave loads by theoretical, numerical, and experimental studies.

Guest Editors

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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

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