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.

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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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