

Special Issue

Ship-Ice Interaction in Ship Design

Message from the Guest Editor

The harsh and fluctuating conditions in Arctic and sub-Arctic regions require new ship design methods that enable safe and efficient operation in ice-covered waters. Wave-ice interactions and the resulting loads on ships are also becoming a dominant factor in ship design due to the detrimental effects of climate change. This Special Issue on “Ship-Ice Interaction in Ship Design” invites original research and review articles that address key gaps in understanding how ice-structure interaction loads and ice failure mechanisms influence ship design philosophies, structural integrity, and operational safety. We especially welcome studies that connect advances in ice-structure and ice-wave-structure interaction modelling with updates to design codes, ice-class rules, and classification practices. Original contributions based on numerical modelling, full-scale trials, model-scale testing, probabilistic methods, and risk-based frameworks for improved ice-ship interaction load predictions and efficient design approaches are encouraged.

Guest Editor

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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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