

Special Issue

Design and Optimization of Ship Hydrodynamics

Message from the Guest Editor

Since the early 1990s, ship design has been closely associated with the optimization of the hull and the onboard systems. Designers rely on advanced tools to evaluate the hydrodynamic characteristics of the hull and the propulsion system and to shape and configure them for optimum performance throughout a vessel's service life. Recent stringent regulations imposed by the IMO and other maritime bodies have prompted ship designers to focus on reducing fuel consumption—and consequently, greenhouse gas (GHG) emissions—through the integration of energy-saving devices (ESD) and the exploitation of wind and sun energy. The implementation of these systems, along with the adoption of alternative fuels with reduced or zero GHG emissions, necessitates revised hull form designs to accommodate these innovations. The ship's hydrodynamic performance—including resistance, propulsion, seakeeping and manoeuvring characteristics—is significantly affected by such modifications. High-quality papers are encouraged for publication, particularly those that focus on the design aspects described above. Submissions proposing novel or innovative methodologies are especially welcome.

Guest Editor

Prof. Dr. Gregory Grigoropoulos

Department of Naval Architecture and Marine Engineering, National Technical University of Athens (NTUA), Athens, Greece

Deadline for manuscript submissions

25 January 2026



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/250235

Journal of Marine Science and Engineering
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmse@mdpi.com

mdpi.com/journal/jmse





Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



[mdpi.com/journal/
jmse](https://mdpi.com/journal/jmse)



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.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi
School of Engineering, The UWA Oceans Institute, The University of
Western Australia, Perth, WA 6009, Australia

Author Benefits

High Visibility:

indexed with Scopus, SCIE (Web of Science), Ei
Compendex, GeoRef, Inspec, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Marine) / CiteScore - Q2 (Ocean
Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 15.6 days after
submission; acceptance to publication is undertaken in 1.9
days (median values for papers published in this journal in
the first half of 2025).