

Special Issue

Ocean Dynamics: Numerical Models and Applications

Message from the Guest Editors

Recent applications of theoretical, observational, and numerical modeling techniques to ocean processes, as well as several interdisciplinary fields, have led to a more in-depth study of nearshore ocean physics, continental shelf physical processes (such as turbulence and internal waves, tides and internal tides, offshore circulation, fronts, and wind-waves), biogeochemical feedbacks, hydrodynamics and circulation processes, and sub-mesoscale and small-scale dynamics. These play a very important role in improving operational oceanographic services. This Special Issue on "Ocean Dynamics: Numerical Models and Applications" will focus on both ocean models' applications and established/new implementations of ocean models. All areas of ocean dynamics, from large ocean circulations to single vortices, or plume structures to small-scale turbulence, are welcome. Papers focusing on theoretical or observational (in situ or remote sensing monitoring or satellite observations) applications and modeling studies; variant numerical methods; and machine learning, artificial intelligence, data assimilation, remote sensing techniques, and applications are also welcome.

Guest Editors

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Prof. Dr. Changsheng Chen

Dr. Yi-Chia Hsin

Deadline for manuscript submissions

closed (31 August 2022)



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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.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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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).