

Special Issue

Numerical Modelling of Atmospheres and Oceans

Message from the Guest Editor

With the advent of computer technology and numerical methods, considerable progress has been made in the development and applications of numerical atmospheric and ocean models in the recent years. Today, numerical models have widely been used in modelling and predictions of various phenomena in the atmospheres and oceans with a wide range of spatial and temporal scales. The subjects of this Special Issue include but are not limited to:

- Development and validations of new numerical methods;
- Numerical studies on main processes in atmospheres and oceans, particularly during extreme weather conditions;
- Coupling between atmospheric and ocean models;
- Predictions and predictability of climate models;
- New parameterizations for sub-grid scale processes in numerical models;
- Numerical studies on atmosphere–ocean interactions, and interactions of ocean waves and currents;
- Numerical investigations of environmental conditions over coastal and inland waters;
- Numerical studies of hydrodynamic instabilities and mixing.

We cordially invite you to submit top-quality papers to the Special Issue.

Guest Editor

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Deadline for manuscript submissions

closed (1 January 2023)



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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

Prof. Dr. Charitha Pattiaratchi

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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.5 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).