

Special Issue

Sea Ice and Polar Climate Change

Message from the Guest Editors

Due to the warming of the climate, polar sea ice has started to change at an accelerated pace in recent decades. Both atmospheric and oceanic forcing have contributed to these changes in sea ice at both interannual and multidecadal time scales. However, the varying scale of temporal changes in response to climate change remains unclear. Different tools and techniques (remote sensing, modeling, AI et al.) can be employed to determine the mechanism driving the changes in Arctic/Antarctic sea ice at interannual, decadal, and multidecadal time scales. Scholars have increasingly assessed these changes in polar sea ice based on observations from multiple remote sensing platforms, evaluated the thermodynamic and dynamic mechanisms based on sophisticated coupled models, and advanced the field of sea ice forecasting using new AI models. This Special Issue aims to publish insightful research regarding Arctic and/or Antarctic sea ice changes in the context of climate change.

Guest Editors

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Deadline for manuscript submissions

closed (25 March 2025)



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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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