

# 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

Dr. Haibo Bi

Prof. Dr. Zhuoqi Chen

Dr. Xi Liang

### Deadline for manuscript submissions

closed (25 March 2025)



## Journal of Marine Science and Engineering

an Open Access Journal  
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CiteScore 5.0



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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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### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi  
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