## Special Issue

## Regional Ocean Dynamics in a Warming Climate: Insights from Modeling and Observations

## Message from the Guest Editors

Global warming has profoundly impacted ocean systems, leading to rising sea levels, sea ice melting, increased ocean temperatures, and ocean acidification. These changes have complex repercussions on regional ocean dynamics, including alterations in currents, water mass characteristics, and biochemical processes. Understanding these effects necessitates a comprehensive approach integrating in situ and satellite observations with theoretical frameworks and numerical models. This Special Issue aims to compile innovative research on the dynamics and variability of regional oceans, examining their connections to broader-scale and global atmospheric and oceanic changes. Submissions should address recent advances in observational and modeling studies related to the interannual variability of polar and subpolar regions, subtropical oceans and gyres, semi-enclosed seas, and equatorial areas. Articles focusing on the response of regional oceans to global warming, coupled physical and biochemical variability, and regional climate projections are particularly welcome.

## **Guest Editors**

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### Deadline for manuscript submissions

closed (30 April 2025)



# Journal of Marine Science and Engineering

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## 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

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