

## Special Issue

# Ocean Dynamic Processes and Climate Variability: Insights from Hydrographic Observations and Modeling

### Message from the Guest Editors

Ocean dynamic processes, including ocean circulation, heat transport, and mixing, play a crucial role in regulating the Earth's climate system. They influence climate variability by redistributing energy globally, subsequently impacting circulation patterns and climate variability across various spatial and temporal scales. Such variability can influence regional patterns of temperature, precipitation, and other climate variables, which, in turn, affect weather patterns and climate events, potentially leading to significant local, economic, and social impacts. Studying the complex connections between ocean dynamic processes and climate variability is essential for advancing our understanding of the Earth's climate system and its future changes, predicting extreme events, and contributing to the improvement of global climate models. This Special Issue aims to address topics that focus on the connection between ocean dynamic processes and climate variability across different scales, utilizing hydrographic observations and models.

### Guest Editors

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### Deadline for manuscript submissions

closed (1 March 2025)



## Journal of Marine Science and Engineering

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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.

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### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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