Special Issue

Next-Generation Iceberg Behavior Modeling: Integrating Machine Learning, Computational Fluid Dynamics, and Environmental Dynamics

Message from the Guest Editor

Icebergs play a critical role in oceanic and climate systems, posing both challenges and opportunities for marine navigation, offshore engineering, and environmental sustainability. Traditional iceberg modeling methods, while effective, often struggle to capture the complex interactions between icebergs, ocean currents, wind forces, and climate dynamics. The integration of machine learning , computational fluid dynamics , and environmental dynamics presents a cutting-edge approach to enhancing the accuracy, efficiency, and predictive capabilities of iceberg behavior models.

This Special Issue aims to gather interdisciplinary research that advances the state of the art in iceberg modeling. We welcome contributions that explore novel computational techniques, data-driven methodologies, and hybrid approaches to better understand iceberg drift, deterioration, and interactions with marine structures. We invite researchers from diverse fields, including oceanography, climate science, computational modeling, and artificial intelligence, to contribute to this Special Issue.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

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