

Special Issue

Hydrodynamics of Marine Propulsion and Trends in Computational and Experimental Simulations

Message from the Guest Editor

Marine propulsion hydrodynamics is transforming as the maritime industry moves toward cleaner, more efficient, and intelligent technologies. Computational fluid dynamics, high-fidelity turbulence modeling, and large-scale simulations provide unprecedented insight into complex flows like cavitation, unsteady loading, and propeller-wake interactions. Experimental approaches—towing-tank tests, cavitation tunnels, and advanced diagnostics—remain essential for validation and physical understanding. Studies on bubble-propeller interactions, acoustic interference, and bubbly wakes further reveal the complex coupling between propulsors and their environment. This Special Issue aims to collect state-of-the-art research and explore emerging trends in marine propulsion hydrodynamics. We welcome contributions from academia and industry on numerical modeling, experimental campaigns, innovative propulsion concepts, drag-reduction technologies, and integrated design frameworks that improve efficiency, reliability, and environmental performance.

Guest Editor

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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

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