

Special Issue

Data/Knowledge-Driven Behaviour Analysis for Maritime Autonomous Surface Ships

Message from the Guest Editors

Understanding, modeling, and predicting ship behavior are fundamental and essential issues for planning, controlling, and operating different levels of maritime autonomous surface ships (MASS). The maritime traffic data (e.g., radar data, AIS data, CCTV data) provide designers, officers on watch, and traffic operators with extensive information about the states of ships at present and in history, which are a treasure for behavior analysis. Thus, this Special Issue aims to provide a medium to present the latest developments on methods and tools suitable for relevant issues, including but not limited to:

- Data-driven behavior modeling and simulation;
- Knowledge-driven behavior modeling and reasoning;
- Multisource heterogeneous traffic data fusion;
- Semantic analysis of ship behaviors;
- Quantifying COLREGs and seamanship for machine;
- Inference engine and ontology reasoning for rule-compliant MASS;
- Intention inference based on behavior observations;
- Maritime traffic situational awareness;
- Multiagent simulation;
- Risk analysis and management of MASS;
- Safety and cybersecurity of MASS.

Guest Editors

Prof. Dr. Yuanqiao Wen

Prof. Dr. Axel Hahn

Dr. Osiris Valdez Banda

Prof. Dr. Yamin Huang

Deadline for manuscript submissions

closed (15 June 2022)



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/98586

Journal of Marine Science and Engineering
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmse@mdpi.com

mdpi.com/journal/jmse





Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



[mdpi.com/journal/
jmse](https://mdpi.com/journal/jmse)



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.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi
School of Engineering, The UWA Oceans Institute, The University of
Western Australia, Perth, WA 6009, Australia

Author Benefits

High Visibility:

indexed with Scopus, SCIE (Web of Science), Ei
Compendex, GeoRef, Inspec, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Marine) / CiteScore - Q2 (Ocean
Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 15.6 days after
submission; acceptance to publication is undertaken in 1.9
days (median values for papers published in this journal in
the first half of 2025).