

## Special Issue

# Application of Sensing and Machine Learning to Underwater Acoustic

### Message from the Guest Editors

The aim of this Special Issue is to promote and disseminate the latest research that focuses on machine learning applications in underwater acoustics. Papers that address applications of machine learning in all fields of underwater acoustics—including (but not limited to) active and passive sonar, imaging, tomography, communication, bioacoustics, source localization, seabed characterization, signal classification, propagation modeling, and environmental monitoring—are welcomed. A broad interpretation of what qualifies as “machine learning” is adopted for this Special Issue, which includes advanced signal processing and Bayesian approaches. This issue seeks to highlight how the rapid improvement of computational resources and development of new algorithms are advancing the development of robust machine learning approaches to solve significant challenges in the field of underwater acoustics.

---

### Guest Editors

Dr. Tracianne B Neilsen

Department of Physics and Astronomy, Brigham Young University,  
Provo, UT 84602, USA

Dr. Haiqiang Niu

Institute of Acoustics, Chinese Academy of Sciences, Beijing 100190,  
China

---

### Deadline for manuscript submissions

closed (15 February 2023)



## Journal of Marine Science and Engineering

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.6



[mdpi.com/si/128723](https://mdpi.com/si/128723)

*Journal of Marine Science and  
Engineering*

Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[jmse@mdpi.com](mailto:jmse@mdpi.com)

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

[jmse](https://jmse)





# Journal of Marine Science and Engineering

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.6



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



## 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

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 - Q1 (Ocean Engineering)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.5 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).