

## Special Issue

# Emerging Technologies for Underwater Acoustic Sensing and Communication

### Message from the Guest Editors

This Special Issue is devoted to recent advances and emerging technologies in underwater acoustic sensing and communication. As the underwater environment presents unique challenges such as high attenuation, low bandwidth, and dynamic multipath effects, there is a growing need for innovative approaches that enhance signal reliability, sensing accuracy, and system integration. We welcome contributions that address issues in both the theoretical and application aspects of underwater acoustics, including but not limited to novel transducer design, advanced modulation and coding schemes, acoustic sensor networks, machine learning-enhanced signal processing, and integration with autonomous underwater platforms. Works that demonstrate experimental validation of proposed methods or present novel in situ deployments in real-world marine environments are particularly encouraged.

- underwater acoustic sensing and communication
- transducer design
- advanced modulation and coding schemes
- acoustic sensor networks
- machine learning-enhanced signal processing
- autonomous underwater platforms

---

### Guest Editors

Prof. Dr. Wentao Shi

Prof. Dr. Yougan Chen

Dr. Lianyou Jing

---

### Deadline for manuscript submissions

20 November 2025



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/239167](https://mdpi.com/si/239167)

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

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





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )