

## Special Issue

# Advances in Deep Space Probe Navigation

### Message from the Guest Editors

Deep space exploration expands human understanding of the universe, and promotes the progress of space technology. It has been an important indicator of the country's comprehensive strength and technology level. Effective navigation is an important prerequisite for ensuring the success of deep space exploration missions. With the continuous expansion of detection range, the demand for real-time, high precision and high reliability navigation is also increasing. In this special issue, "Advances in Research on Deep Space Probe Navigation," we aim to bring together researchers and practitioners to explore the latest developments in deep space probe navigation, and to present a collection of papers that address the challenges and opportunities in these fields. We invite submissions from academia and industry on theoretical and practical aspects related to deep space probe navigation. We also welcome articles on other topics related to aerospace systems, such as space perception and control themes. Keywords:

- deep space probe
- autonomous navigation
- integrated navigation
- celestial navigation
- pulsar navigation

---

### Guest Editors

Dr. Mingzhen Gui

Prof. Dr. Jin Liu

Dr. Chengxi Zhang

Dr. Mingzhe Dai

---

### Deadline for manuscript submissions

closed (31 January 2025)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/178307](https://mdpi.com/si/178307)

*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/](https://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, Embase, CAPIus / SciFinder, and other databases.

#### Journal Rank:

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