

## Special Issue

# GNC for the Moon, Mars, and Beyond

### Message from the Guest Editor

We are approaching a new era in space exploration and exploitation. The human return to the Moon foreseen before this decade is out, and the renewed interest of public and (for the first time) private players towards the exploration of Mars are opening a potentially infinite variety of exciting missions. Moreover, asteroids' deflection and in-situ resources exploitation is no longer a technological chimera, but a concrete scientific possibility at our hand. As for any space mission, the corresponding Guidance, Navigation and Control subsystems are called once more to be the workhorse that can make the vision behind these concepts a technological reality, and with every vision comes a challenge, that many researchers all around the world are eager to face. This special issue will specifically focus on

- Trajectory Optimization
- Computational Guidance methods
- Novel Control Concepts
- High-Accuracy Relative and Absolute Navigation Algorithms
- Advanced GNC system design concepts
- Asteroid Mapping and Descent Robust Methodologies
- Interplanetary Low-thrust Guidance and Control Methods.

### Guest Editor

Dr. Marco Sagliano

1. German Aerospace Center (DLR), Robert Hooke Str. 7, 28359 Bremen, Germany
2. Japan Aerospace Exploration Agency (JAXA), Chofu-City, Tokyo, Japan

### Deadline for manuscript submissions

closed (29 February 2024)



## Aerospace

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.0



[mdpi.com/si/141390](https://mdpi.com/si/141390)

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

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





# Aerospace

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.0



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



## About the Journal

### Message from the Editor-in-Chief

You are welcome to contribute a research article or a comprehensive review for consideration and publication in *Aerospace* (ISSN 2226-4310), an on-line, open access journal.

*Aerospace* adheres to rigorous peer-review as well as editorial processes and publishes high quality manuscripts that address both the fundamentals and applications of aeronautics and astronautics. Our goal is to enable rapid dissemination of high impact works to the scientific community.

---

### Editor-in-Chief

Prof. Dr. Konstantinos Kontis  
School of Engineering, University of Glasgow, James Watt Building  
South, University Avenue, Glasgow G12 8QQ, Scotland, UK

---

### 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), Inspec, Ei Compendex, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Aerospace) / CiteScore - Q2  
(Aerospace Engineering)