



## Advanced Design for Lightweight Space Materials and Structural Systems

Guest Editor:

**Prof. Dr. Hyun-Ung Oh**

School of Aerospace and  
Mechanical Engineering, Korea  
Aerospace University, 76,  
Hanggongdaehak-ro, Deogyang-  
gu, Goyang-si 10540, Gyeonggi-  
do, Republic of Korea

Deadline for manuscript  
submissions:

**31 December 2024**

### Message from the Guest Editor

"Better, faster, and cheaper"—the new space paradigm encompasses the mass production of structures for space missions at low cost. Within this trend, lightweight structures and advanced materials have been identified as critical needs since reducing structural mass directly impacts cost and mass capability, facilitating additional logistics competencies for all missions. Therefore, innovative materials and structures for space are actively being developed, along with optimization techniques and high-reliability structural design methodologies aimed at weight reduction. These advancements will enhance space mission performance and serve as key cornerstones for future space exploration.

Aligned with these efforts, this Special Issue covers a spectrum of relevant technologies, including structural design methodologies, optimization techniques, and advanced materials to achieve lightweight spaceborne structures. The detailed scope of the Special Issue encompasses a range of innovative lightweight structures, advancements in materials for metals, composites, ceramics, and fabrics, large deployable structures, as well as multi-functional/purpose materials and structures.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Konstantinos Kontis**

School of Engineering, University of Glasgow, James Watt Building South, University Avenue, Glasgow G12 8QQ, Scotland, UK

## 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.

## 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, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Aerospace*) / CiteScore - Q2 (*Aerospace Engineering*)

## Contact Us

---

*Aerospace* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/aerospace](http://mdpi.com/journal/aerospace)  
[aerospace@mdpi.com](mailto:aerospace@mdpi.com)  
[X@Aerospace\\_MDPI](#)