

## Special Issue

# Large Eddy Simulation in Aerospace Engineering

### Message from the Guest Editor

The idea of the numerical wind tunnel, which allows for the virtual testing of entire aerospace vehicles, is intriguing and has motivated research and development in numerical methods, turbulence modeling, and hardware architecture among others. Although direct numerical simulations of full-size aerospace vehicles will remain out of reach for the foreseeable future, large-eddy simulations promise to break into the realm of design and analysis, which has long been dominated by Reynolds-averaged Navier–Stokes simulations. Large-eddy simulations are already providing the basis for a large number of significant contributions to many areas of science broadly associated with turbulent transport phenomena. This Special Issue aims to document the state-of-the-art in large-eddy simulations for aerospace applications. Articles are sought that are representative of today's capability of large-eddy simulations, that summarize recent developments in sub-grid stress and wall modeling, and that make projections about the future potential of large-eddy simulations and the anticipated computing and storage requirements.

### Guest Editor

Prof. Dr. Andreas Gross

Mechanical and Aerospace Engineering Department, New Mexico State University, Las Cruces, NM 88003, USA

### Deadline for manuscript submissions

closed (15 November 2021)



## Aerospace

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.0



[mdpi.com/si/77520](https://mdpi.com/si/77520)

*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)