



## Hypersonic Turbulence Flow Measurements and Simulations

Guest Editors:

**Dr. Alexander Wagner**

Institute of Aerodynamics and  
Flow Technology, German  
Aerospace Center (DLR), 37073  
Göttingen, Germany

**Dr. Carlo Scalo**

Department of Mechanical  
Engineering, Purdue University,  
West Lafayette, IN 47907, USA

Deadline for manuscript  
submissions:

**closed (31 July 2023)**

### Message from the Guest Editors

Dear Colleagues,

We are pleased to announce the launch of a new Special Issue on “Hypersonic Turbulence Flow Measurements and Simulations” in the Open Access journal *Aerospace* with the aim to showcase the state of the art of this discipline and to disseminate new ideas in a field which has recently experienced enormous interest.

Accurate aerodynamic predictions are critical for the design and optimization of hypersonic vehicles. Turbulence modeling remains a major source of uncertainty in the computational prediction of aerodynamic forces and heating for these systems. Currently, large discrepancies exist between predicted and measured turbulent aerodynamic heating, drag over high-speed configurations, and mean turbulent flow features above complex geometries and/or non-equilibrium conditions, warranting the urgent development and improvement of multi-fidelity computational models.





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](#)