



Advances in Hypersonic Aircraft Propulsion Technology

Guest Editor:

Dr. Qingchun Yang

School of Astronautics, Beihang
University, Beijing 100191, China

Deadline for manuscript
submissions:

closed (31 July 2023)

Message from the Guest Editor

Numerous experiments and studies performed over the past 50 years have shown the potential benefits of hypersonic aircraft. The revolutionary method of propulsion which makes this possible is the scramjet engine and high-performance propulsion systems, such as turbine-based combined cycle (TBCC) or rocket-based combined cycle (RBCC) systems.

Heat transfer and flow dynamics are the main topics of concern for propulsion systems. Thermal protection has become the biggest problem for aircraft operating at hypersonic speeds due to external aerodynamic heating and internal combustion heat. In addition to more research on thermal management, research into advanced spray, combustion, and flow control technology is also necessary to ensure high combustion efficiency in advanced propulsion systems. Novel or optimized computational and experimental methods can be applied to measure spray, combustion, heat transfer, and flow dynamics within propulsion systems.

This Special Issue aims to provide an overview of recent advances in hypersonic aircraft propulsion technology. We highly encourage original research and review articles from international researchers.





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, 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, Ei Compendex, 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

mdpi.com/journal/aerospace
aerospace@mdpi.com
[X@Aerospace_MDPI](#)