aerospace

an Open Access Journal by MDPI

IMPACT FACTOR 2.1

CITESCORE 3.4

# Fundamental Detonation Mechanism and Advanced Detonation Propulsion Technology

Guest Editors:

**Prof. Dr. Bo Zhang**
School of Aeronautics and Astronautics, Shanghai Jiaotong University, Shanghai 200240, China

**Prof. Dr. Honghui Teng**
School of Aerospace Engineering, Beijing Institute of Technology, Beijing 100081, China

**Prof. Dr. Jeong Yeol Choi**
Department of Aerospace Engineering, Pusan National University, Busan 46241, Republic of Korea

Deadline for manuscript submissions:
**closed (31 August 2023)**

## Message from the Guest Editors

In recent years, there has been increasing interest in developing detonation-based engines, such as Pulsed (PDEs), Rotating (RDEs) and Oblique Detonation Engines (ODEs), for aeronautics and astronautics propulsion applications due to the high propulsion performance afforded by detonation. However, challenges remain in the application of detonation engines; thus, the fundamental detonation phenomena (e.g., initiation, propagation limits and failure) and their mechanisms must be better understood prior to the application of detonation in advanced propulsion technology.

For this Special Issue, we invite authors to contribute high-quality original papers covering fundamental detonation phenomena and their physics, and new developments in technology associated with the application of detonation, especially for PDEs, RDEs and ODEs. We also welcome papers discussing new theoretical, analytical, experimental and numerical developments.

**Keywords:**

- detonation
- shock waves
- initiation
- propagation limits
- detonation failure
- Pulsed Detonation Engines
- Rotating Detonation Engines
- Oblique Detonation Engines

aerospace

IMPACT FACTOR 2.1

CITESCORE 3.4

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

mdpi.com/journal/aerospace
aerospace@mdpi.com
𝕏@Aerospace_MDPI