

Special Issue

Dynamic Performance Analysis and Control of Engines for Aerospace

Message from the Guest Editor

The demand for space applications is growing, and the need for space transportation is gradually expanding in both military and commercial spaceflight, with rapid and low-cost spaceflight activities being the current trend. In order to enter space, it is indispensable to have powerful propulsion devices, including liquid rocket engines, ram engines, and their combined engines. This is a call for papers for a Special Issue entitled “Dynamic Performance Analysis and Control of Engines for Aerospace”. This Special Issue will provide a venue for scholars and researchers to share their most recent theoretical and technical successes, as well as to highlight key topics and difficulties for future study in the field. The submitted papers are expected to raise original ideas and potential contributions to theory and practice. The research topics include, but are not limited to, the following:

- System characteristics;
- Spray and flow;
- Combustion dynamics;
- Rotor dynamics;
- Reliability and life analysis;
- Heat transfer and thermal protection;
- Propellant characterization.

Guest Editor

Prof. Dr. Nanjia Yu

School of Astronautics, Beihang University, Beijing 100191, China

Deadline for manuscript submissions

closed (28 February 2025)



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



mdpi.com/si/194505

Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)





Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)



About the Journal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided. There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of
Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1
(Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).