



Spacecraft Attitude Control Using Magnetic Actuators

Guest Editor:

Prof. Dr. Fabio Celani

School of Aerospace Engineering,
Sapienza University of Rome,
00138 Roma, Italy

Deadline for manuscript
submissions:

closed (30 November 2022)

Message from the Guest Editor

Magnetic actuators are widely used for the generation of attitude control torques on satellites flying in low Earth orbits: (i) they are simple, reliable, and low-cost; (ii) they need only renewable electrical power to be operated; (iii) using magnetorquers, it is possible to smoothly modulate the control torque so that unwanted couplings with flexible modes, which could harm pointing precision, are not induced; (iv) magnetorquers save system weight with respect to any other class of actuators. On the other hand, magnetorquers have the important limitation that control torque is constrained to belong to the plane orthogonal to the Earth's magnetic field. As a result, different types of actuators usually accompany magnetorquers to provide full three-axis control. This SI is focused on recent advances in spacecraft attitude control using magnetorquers with a special interest in control algorithm design. Contributions with experimental or practical results are also very welcomed.





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 - Q1 (*Engineering, Aerospace*) / CiteScore - Q2 (*Aerospace Engineering*)

Contact Us

Aerospace Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/aerospace
aerospace@mdpi.com
[X@Aerospace_MDPI](https://twitter.com/Aerospace_MDPI)