Special Issue

Optimal Control in Astrodynamics

Message from the Guest Editors

The objective of this Special Issue entitled “Optimal Control in Astrodynamics” is in presenting valuable contributions in the field of optimal control applied to spacecraft dynamics, with a special focus on orbital mechanics and attitude dynamics, in a variety of mission scenarios. Submissions are solicited related to optimal control in the following dynamical contexts:

- Space mission design in multibody environments;
- Dynamic programming and its applications to space trajectories;
- Minimum-fuel and minimum-time orbit transfers;
- Ascent trajectories of launch vehicles;
- Spacecraft operations, including proximity maneuvers, rendezvous, and docking;
- Planetary descent and landing;
- Decentralized optimal control in multi-agent space systems;
- Satellite constellations, formation flying, and spacecraft clusters;
- Theory of differential games and its application to space trajectories;
- Spacecraft guidance and control;
- Spacecraft attitude maneuvering.

Guest Editors

Dr. Mauro Pontani

Department of Astronautical, Electrical, and Energy Engineering, Sapienza University of Rome, 00185 Roma, Italy

Dr. Stefano Carletta

School of Aerospace Engineering, Sapienza University of Rome, 00185 Roma, Italy

Deadline for manuscript submissions

closed (30 April 2026)

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

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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.

Editor-in-Chief

Prof. Dr. Konstantinos Kontis
School of Engineering, University of Glasgow, James Watt Building South, University Avenue, Glasgow G12 8QQ, UK

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