

Special Issue

Advances in Dynamics, Planning and Control of Spacecraft and Related Systems

Message from the Guest Editors

The rapid increase in space system scale, task execution capabilities, and user demand has led to research hotspots in spacecraft dynamics modeling, task planning, and collaborative control. A better series of dynamics models can calculate more accurate position and attitude among spacecrafts and ground targets; a set of higher efficient planning algorithms can obtain more economical, secure and validate usage of spacecraft; and a range of precise control methods can make the task execution more accurately. There are many symmetry issues, mathematics theory issues, and algorithm issues in dynamics, planning and control of spacecraft... Accepted papers for this Special Issue are expected to provide the latest developments in dynamics, planning and control approaches, especially new theoretical results with practical applications. We would like to invite scholars to contribute with their research by employing symmetry or asymmetry concepts in their methods and methodologies, including, but not limited to, the areas listed below. Submit your paper and select the Journal "Symmetry" via the MDPI submission system.

Guest Editors

Prof. Dr. Xiande Wu

Prof. Dr. Dong Ye

Prof. Dr. Yunhua Wu

Dr. Yan Xiao

Dr. Yaen Xie

Deadline for manuscript submissions

closed (31 January 2026)



Symmetry

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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