

Special Issue

Advances in Spacecraft Attitude and Orbital Dynamics, Control, Trajectory Planning and Navigation

Message from the Guest Editors

Many themes are related to traditional spacecraft dynamics and control, which incorporate spacecraft attitude and orbit dynamics and control, as well as the design, testing, and performance of novel attitude sensors and actuators, and also cover the dynamics and control of multiple interconnected rigid and flexible bodies, including tethered systems, and in-orbit assembly. It is also related to the guidance, navigation, and control of Earth-orbiting and interplanetary spacecraft, including formation flying, rendezvous, and docking. This topic also includes the research of natural motions of objects in orbit around the Earth, planets and minor bodies, Lagrangian points, natural orbital dynamics of spacecraft in the Solar System, and also the attitude dynamics of a spacecraft. Attitude and orbit trajectory planning, control, and navigation for new space applications and missions are related to spacecraft design, operations, and optimization of Earth-orbiting and interplanetary missions, with emphasis on studies and experiences related to current and future space applications and missions.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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