



Methods of Precise Orbit Determination and Autonomous Navigation for Interplanetary Space Probes

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Message from the Guest Editors

Dear Colleagues,

In this Special Issue, we invite research papers that deal with technologies and methods for highly accurate navigation of spacecraft and rovers. Techniques for the determination of interplanetary probe trajectory that are based on novel measurement types are encouraged.

Potential paper topics include but are not limited to:

- Use of cutting-edge technologies for deep space navigation, including radio and laser systems;
- Use of onboard cameras and altimeters to aid in the determination of the spacecraft trajectory and central body's ephemeris;
- Development of novel techniques of precise orbit determination based on the combination of multiple datasets;
- Development of methods and instrumentations to measure non-gravitational forces and improve thereby the spacecraft orbit reconstruction and propagation;
- Modeling of gravity field, topography and shape for geodetic investigations and accurate trajectory reconstruction;
- Development of approaches that enable highly accurate navigation on planetary surfaces, including visual odometry.





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Message from the Editor-in-Chief

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