

Special Issue on  
**Planetary Geodesy and Geophysics of Terrestrial Planets  
and Asteroids: Data and Modeling**

# CALL FOR PAPERS

Planetary geodesy and geophysics consist of modeling and measuring the shape and gravity field of Solar System bodies (here we would focus on terrestrial planets and asteroid) and the variations in their rotation and orientation, and their indications on interior structure. It is a discipline of planetary, and, up to now, planetary explorations have provided massive data for us, which we need to research and analyze for further achievements.

Current and coming missions such as MESSENGER, ExoMars, ROSETTA, and Hayabusa-II and planned missions like Chang'E4&5, BepiColombo, and MMX will reach further for the Moon, terrestrial planets, and asteroids. We could expect the data growing rapidly in recent time, and it will be a big challenge to model the data and to exploit them for a better understanding of the nature of terrestrial planets and asteroids.

The aim of the special issue will be to highlight the latest advances, problems, and challenges and to present the latest research results in the field of planetary geodesy and geophysics. It will focus on all aspects of planetary topography, gravity field, and rotation modelling, planetary core and mantle structure investigation, and lithospheric elastic thickness study as well as thermal evolution of the planets. Any research articles related to such topics is encouraged, and review articles in this field will be especially welcomed.

Potential topics include but are not limited to the following:

- ▶ Precise lunar, Mars, Mercury, asteroid, and comet topography modeling
- ▶ Precise planetary spacecraft orbit determination using new tracking mode
- ▶ Potential improvement in lunar, Mars, and Mercury gravity field modeling
- ▶ Gravity field presentation of comet and asteroid with irregular shape
- ▶ Potential improvement in planetary rotation with current and future exploration missions
- ▶ Planetary core structure with current geodetic and geophysical constraint
- ▶ Planetary lithospheric elastic thickness with new data and algorithm
- ▶ Planetary thermal evolution with constraints of recent gravity, topography, and seismic data

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/aa/pggd/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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