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Advances in Astrodynamics and Applied Mathematics

Guest Editor:

Dr. Vladimir Martinusi
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Deadline for manuscript submissions:
closed (10 February 2024)

Message from the Guest Editor

Dear Colleagues,

Astrodynamics, also known as orbital mechanics, constitutes a distinct branch of celestial mechanics that specializes in the investigation of the motion of man-made satellites and other spacecraft. Its main focus lies on space mission design and control, making it an essential component of the space exploration process.

As a subfield of applied mathematics, astrodynamics has undergone significant advancements in recent years. Mathematical models and algorithms have facilitated the precise forecasting of complex trajectories with greater accuracy, leading to groundbreaking discoveries in fields such as climate modeling and machine learning.

This Special Issue invites high-quality papers comprising original research outcomes and review articles of exceptional quality, covering the following areas of interest.

- Astrodynamics;
- Orbital mechanics;
- Spacecraft attitude control;
- Spacecraft propulsion;
- Dynamical systems;
- Relative orbital motion;
- Dynamics of space structures/systems;
- Perturbation theory;
- Computational methods;
- Applied mathematics.

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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