Special Issue

Applications of Machine Learning in Spacecraft and Aerospace Systems

Message from the Guest Editors

Aerospace science and data-driven methods have been well integrated gradually. Prevalent data-driven methods such as deep learning (DL) and reinforcement learning (RL) solve many complex aerospace engineering problems that traditional methods are inefficient or impossible to solve. However, the main challenge of applying data-driven methods to aerospace lies in the attitude and orbital control, fault diagnosis, target recognition, situational awareness, mission planning, remote sensing data analysis, in-orbit service, and human–computer interaction in aerospace. This Special Issue aims to gather a collection of the latest studies in solving aerospace problems with data-driven methods from theoretical or practical perspectives. We welcome new or improved methods for modeling, controlling, learning, optimization, and decision support problems. Particular interest is also paid to the applications of fault diagnosis, life prediction, functional reconstruction, and healthy operation for spacecraft. We invite authors to submit research papers and/or review papers that fit this purpose.

Guest Editors

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Deadline for manuscript submissions

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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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