Special Issue

Space Mechanisms and Robots

Message from the Guest Editors

Space exploration is one of the most challenging and meaningful activities in human history. The use of space mechanisms is often imposed by large size structures required for space missions and the envelope constraints under the fairing of the launch vehicles. Space mechanisms are critical to the success of almost all space missions. This Special Issue of Aerospace covers recent efforts in the material, design, simulation, manufacture, experimentation, and application of space mechanisms including solar arrays, deployable antennas, solar sails, sunshields, inflatable habitats, etc. An additional topic of interest in this Special Issue is space robots, which will play an increasingly irreplaceable role in future space missions. Current technical challenges include: 1-identification and perception for noncooperative targets; 2-motion planning and optimization; 3-tactile feedback control; 4-multifunctional robots; 5-high-fidelity ground verification; 6-advanced robots; and 7-future robotic mission concept. We invite authors to submit their research manuscripts on all topics related to space mechanisms and robots to accelerate the advancement of these field.

Guest Editors

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Deadline for manuscript submissions

closed (30 May 2025)

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You are welcome to contribute a research article or a comprehensive review for consideration and publication in *Aerospace* (ISSN 2226-4310), an on-line, open access journal.
Aerospace adheres to rigorous peer-review as well as editorial processes and publishes high quality manuscripts that address both the fundamentals and applications of aeronautics and astronautics. Our goal is to enable rapid dissemination of high impact works to the scientific community.

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