



Deployable Space Structures and Mechanisms

Guest Editors:

Dr. Eleftherios Gdoutos

1. Space Structures Laboratory,
California Institute of
Technology, Pasadena, CA 91125,
USA

2. Proteus Space, Los Angeles, CA
90021, USA

Dr. Armanj Hasanyan

Department of Aerospace and
Mechanical Engineering, The
University of Texas at El Paso, El
Paso, TX 79968, USA

Deadline for manuscript
submissions:

closed (29 February 2024)

Message from the Guest Editors

Dear Colleagues,

Deployable structures and mechanisms are critical to the success of almost all space missions. Deployable structures and mechanisms (i) ensure the stowage of photovoltaics (PV), antennas, optical surfaces, and other functional systems and components in a small volume during launch; (ii) autonomously deploy them into a large area or volume prior to operation; and (iii) provide structural support ensuring the required shape characteristics are met under thermal and dynamic loading during operation. Maximizing the ratio of the deployed volume to the stowed volume and minimizing overall mass are key performance metrics for mission capability. Specific design challenges vary depending on the mission constraints (e.g. operation in a Lunar environment vs in low earth orbit) and result in different optimal architectures. We invite authors to submit their research manuscripts on all topics related to deployable space structures and mechanisms, including innovative concepts in stowing and deployment concepts, deployable structural architectures, deployment schemes, and high strain composites and materials with applications in the space environment.





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Editor-in-Chief

Prof. Dr. Konstantinos Kontis

School of Engineering, University of Glasgow, James Watt Building South, University Avenue, Glasgow G12 8QQ, Scotland, UK

Message from the Editor-in-Chief

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Aerospace Editorial Office
MDPI, St. Alban-Anlage 66
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