



## CALL FOR PAPERS

### The AIAA/AAS Space Flight Mechanics Meeting

Gaylord Palms Resort and Convention Center, Kissimmee, FL

**ABSTRACT DEADLINE: 12 June 2017**

The AIAA/AAS Space Flight Mechanics Meeting will be held January 8<sup>th</sup>-12<sup>th</sup>, 2018 at the Gaylord Palms Resort and Convention Center in Kissimmee, Florida in conjunction with the AIAA Science and Technology Forum and Exposition (SciTech 2018). The conference is organized by the American Institute of Aeronautics and Astronautics (AIAA) Astrodynamics Technical Committee and co-sponsored by the American Astronautical Society (AAS) Space Flight Mechanics Committee. Manuscripts are solicited on topics related to space flight mechanics and astrodynamics, including but not necessarily limited to:

- Asteroid and non-Earth orbiting missions
- Atmospheric re-entry guidance and control
- Attitude dynamics, determination and control
- Attitude-sensor and payload-sensor calibration
- Dynamical systems theory applied to space flight problems
- Dynamics and control of large space structures and tethers
- Earth orbital and planetary mission studies
- Flight dynamics operations and spacecraft autonomy
- Orbit determination and space-surveillance tracking
- Orbital debris and space environment
- Orbital dynamics, perturbations, and stability
- Rendezvous, relative motion, proximity missions, and formation flying
- Reusable launch vehicle design, dynamics, guidance, and control
- Satellite constellations
- Spacecraft guidance, navigation and control (GNC)
- Space Situational Awareness (SSA), Conjunction Analysis (CA), and collision avoidance
- Trajectory / mission / maneuver design and optimization

Manuscripts will be accepted based on the quality of the extended abstract, the originality of the work and/or ideas, and the anticipated interest in the proposed subject. Submissions that are based on experimental results or current data, or that report on ongoing missions, are especially encouraged. Complete manuscripts are required before the conference. English is the working language for the conference.

Additional and up-to-date information can be found at the conference website

[www.aiaa-scitech.org](http://www.aiaa-scitech.org); submit abstracts via the Papers/Presentations tab at that link.

### SPECIAL SESSIONS

Proposals are being considered for suitable special sessions, such as topical panel discussions, invited sessions, workshops, mini-symposia, and technology demonstrations. Prospective special-session organizers should submit their proposals to the Technical Chairs well before the abstract deadline.

### BREAKWELL STUDENT TRAVEL AWARD

The AAS Space Flight Mechanics Committee announces the John V. Breakwell Student Travel Award. This award provides travel expenses for up to four students (from U.S. and Canadian Universities) presenting at this conference. Students wishing to apply for this award are strongly advised to submit their completed manuscript by the abstract submittal deadline. The maximum coverage per student is limited to \$1000. Details and applications may be obtained via <http://www.space-flight.org>.



## INFORMATION FOR AUTHORS

Because the submission deadline of 12 June 2017 is controlled by the AIAA corporate forum organizers, we will not be able to defer this deadline. Notification of acceptance will be sent via email by 25 August 2017. Detailed author instructions will be sent by email following acceptance. By submitting an abstract, the author affirms that the manuscript's majority content has not been previously presented or published elsewhere.

Authors may access the web-based abstract submittal system using the link available via the official web-site [www.aiaa-scitech.org](http://www.aiaa-scitech.org). During the online submission process, authors are expected to provide:

1. a paper title, as well as the name, affiliation, postal address, telephone number, and email address of the corresponding author and each co-author, and
2. an extended abstract in the Portable Document File (PDF) format of at least 500 words that includes the title and authors, and provides a clear and concise statement of the problem to be addressed, the proposed method of solution, the results expected or obtained, and an explanation of its significance to astrodynamics and/or space-flight mechanics, with pertinent references and supporting tables and figures as necessary.

Foreign contributors requiring an official letter of acceptance for a visa application should contact the Technical Chairmen by email at their earliest opportunity.

**Technology Transfer Notice** - Technology transfer guidelines substantially extend the time required to review abstracts and manuscripts by private enterprises and government agencies. To preclude late submissions and withdrawals, it is the responsibility of the author(s) to determine the extent of necessary approvals prior to submitting an abstract.

**No-Paper/No-Podium Policy** – A complete manuscript must be electronically uploaded to the web site prior to the conference in PDF format and conform to the AIAA manuscript format. If a complete manuscript is not received on time, then its presentation at the conference shall be forfeited; and if a presentation is not made by an author at the conference, then the manuscript shall be omitted from published proceedings.

Questions concerning the submission of manuscripts should be addressed to the technical chairs:

**AIAA Technical Chair**

Dr. Kyle J. DeMars  
Missouri University of Science and Technology  
Rolla, MO  
[spaceflight2018@gmail.com](mailto:spaceflight2018@gmail.com)

**AAS Technical Chair**

Dr. Rodney Anderson  
Jet Propulsion Laboratory/Caltech  
Pasadena, CA  
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All other questions should be directed to the General Chairs:

**AIAA General Chair**

Dr. Brett Newman  
Old Dominion University  
Norfolk, VA  
[bnewman\(AT\)odu.edu](mailto:bnewman(AT)odu.edu)

**AAS General Chair**

Dr. Maruthi Akella  
The University of Texas at Austin  
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