



CALL FOR PAPERS

1st Annual International Space Station Research and Development Conference

**Organized by the American Astronautical Society in conjunction with NASA
and the Center for the Advancement of Science in Space Inc. (CASIS)**

**Denver Marriott City Center
Denver, Colorado**

ABSTRACT DEADLINE: January 30, 2012

The 1st Annual International Space Station (ISS) Research and Development and Conference will be held June 26-28, 2012, at The Denver Marriott City Center. The conference is organized by the American Astronautical Society (AAS) in conjunction with the National Aeronautics and Space Administration's Space Station Program Office and with the support of the Center for the Advancement of Science in Space Inc. (CASIS). Manuscripts are solicited on topics related to science and technology activities (past, present, planned and proposed) on the International Space Station, including but not limited to topics on the International Space Station's website http://www.nasa.gov/mission_pages/station/research/experiments_category.html

Biology and Biotechnology: In microgravity, controls on the directionality and geometry of cell and tissue growth can be dramatically different to those on Earth. Various experiments have used the culture of cells, tissues and small organisms on orbit as a tool to increase our understanding of biological processes in microgravity.

Earth and Space Science: The presence of the space station in low-Earth orbit provides a unique vantage point for collecting Earth and space science data. From an average altitude of about 400 km, details in such features as glaciers, agricultural fields, cities, and coral reefs taken from the ISS can be layered with other sources of data, such as orbiting satellites, to compile the most comprehensive information available.

Educational Activities: The space station provides a unique platform for inspiring students to excel in mathematics and science. Station educational activities have had a positive impact on thousands of students by involving them in station research, and by using the station to teach them the science and engineering that are behind space exploration.

Human Research: The space station is being used to study the risks to human health that are inherent in space exploration. Focal research questions address the mechanisms of the risks and develop test countermeasures to reduce these risks. Research on space station addresses the major risks to human health from residence in a long-duration microgravity environment. Results from this research are key enablers for future long-duration missions beyond low Earth orbit.

Physical Sciences: The space station provides the only place to study long-term physical effects in the absence of gravity. This unique microgravity environment allows different physical properties to dominate systems, and these have been harnessed for a wide variety of physical sciences.

Technology and Exploration: Studies on the space station can test a variety of technologies, systems, and materials that will be needed for future long-duration exploration missions.

Presentations will be accepted based on the quality of the 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 report on ongoing missions, are especially encouraged. The working language for the conference is English.

A special issue of *The Journal of the Astronautical Sciences* will be dedicated to the conference, and presenters will be able to submit a full paper for peer review and consideration for publication.

SPECIAL SESSIONS

Proposals are being considered for suitable special sessions, such as topical panel discussions, invited sessions, workshops, mini-symposia, and technology demonstrations. A proposal for a panel discussion should include the session title, a brief description of the discussion topic(s), and a list of speakers and their qualifications. For an invited session, workshop, mini-symposium, or demonstration, a proposal should include the session title, a brief description, and a list of proposed activities and/or invited speakers and paper titles.

Prospective special session organizers should submit their proposals to the Technical Chairs.

VENUE

Denver Marriott City Center
1701 California Street
Denver, Colorado 80202

<http://www.marriott.com/hotels/travel/dendt-denver-marriott-city-center/>

- special room rate \$141 per night -

INFORMATION FOR PRESENTERS

Due to the large number of expected submissions we encourage presenters to submit abstracts early; the deadline is January 30, 2012. Notification of acceptance will be sent via email by March 15, 2012. Detailed presenter instructions will be sent by email following acceptance.

Presenters may access the web-based abstract submittal system using this link: http://www.space-flight.org/docs/2012_ISS/2012_ISS.html During the online submission process, presenters are expected to provide:

1. a presentation title, as well as the name, affiliation, postal address, telephone number, and email address of the corresponding presenter and each contributor,
2. an extended abstract in the Portable Document File (PDF) format of at least 1000 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 space station utilization, with pertinent space station references and supporting tables and figures as necessary. Presenters wanting their presentation included in a conference CD should indicate that they agree with publishing the presentations.

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.

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