



**INTERNATIONAL
ACADEMY OF
ASTRONAUTICS**

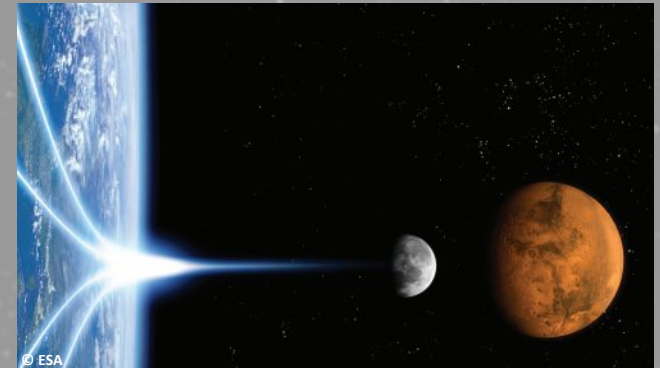
**POLITECNICO DI
TORINO**



**11th IAA SYMPOSIUM ON THE FUTURE OF
SPACE EXPLORATION**

**MOON, MARS AND BEYOND:
BECOMING AN INTERPLANETARY CIVILIZATION**

CALL FOR PAPERS



VENUE

**Politecnico di Torino – Lingotto Campus
Via Nizza, 230
10126 TORINO (TO), ITALY**

17-19 June 2019

Torino, Italy

SYMPOSIUM DATES AND LOCATION

A new three-days International Symposium on the future of Space Exploration will be organized by the International Academy of Astronautics and Politecnico di Torino. The symposium will be held in Torino, on 17-19 June 2019.

SYMPOSIUM GOALS

The International Academy of Astronautics is fostering global cooperation in Human and Robotics Space Exploration since more than 5 decades.

The International Space Station program is expected to be completed by 2024 and there is no global program agreed for Human Space Flight.

The goals of this new Symposium are to present the final results of IAA activities related to programs beyond Low Earth Orbit, starting from the Moon Village vision. The Moon Village is considered by many as the logic step for humans beyond LEO and a stepping stone for Mars exploration and interplanetary journeys.

The aim is to promote an exchange of ideas and experiences, within the Space community, discussing the activities presented and proposing new concrete global space exploration activities involving established and emerging space agencies and industries.

Special effort will be devoted to involve young professionals and new space start-up companies related to exploration acting as a forum for fostering new initiatives

Papers related to Technology, Science, Programmatics, Economics, Ethical and Cultural aspects of the

AREAS OF INTEREST

Technology

- Propulsion and power generation
- Mission and trajectory design
- Attitude dynamics
- Navigation, guidance and control
- Very deep space telecommunications
- Sensors, detectors and lens systems
- Precursor interstellar missions
- Nanotechnology and robotics
- Innovative concepts
- Regenerative life support systems
- ISRU systems
- Planetary protection
- Telepresence

Science

- Scientific objectives and payload requirements
- Present outgoing scientific missions
- Biosignatures from space
- Medical problems of very long-range spaceflight
- Hibernation
- Planetary environments

Programmatics

- Cooperation schemes and roadmaps
- Reporting of the ongoing IAA Study Groups
- Role of the ISS in space exploration

Motivations

- Motivations and human aspects
- Policy and international cooperation
- Ideas from science fiction to technology

Economics

- Funding aspects and economic sustainability
- Space mineral resources
- Space resources exploitation

Ethics

- Ethical aspects of long-range exploration
- From exploration to colonization
- Ethical aspects of terraforming
- Robot ethics
- Adaptation of humans to new environments
- Experience of 10 Years of ISS permanent activity

Cultural

- Multicultural aspects of human space exploration
- Outreach aspects of Space Exploration
- Access to space for emerging countries

CO-CHAIRS

Les Johnson

Giuseppe Reibaldi

SCIENTIFIC COMMITTEE

Catharine Conley

Giancarlo Genta

Bernhard Hufenbach

Jan Kolar

Greg Matloff

Les Johnson

Suzan McKenna Lawlor

Yoshinari Minami

Maria Antonietta Perino

Sundaram Ramakrishnan

Yury Razoumny

Giuseppe Reibaldi

Andrea Sommariva

Yuichi Tsuda

Antonio Viviani

Yang Yuguang

LOCAL ORGANIZATION COMMITTEE

Sabrina Corpino

Giancarlo Genta

Nicole Viola

ABSTRACT SUBMISSION

Abstracts must be written in English on a single A4 page with the title, author's name affiliation and complete address. All intended papers will be examined by the Scientific Committee.

Abstracts must be e-mailed to:
spaceexploration@iaamail.org

Information will be available at
<https://www.iaaweb.org>

DEADLINES

Submission of abstract

April 15, 2019

Notification of acceptance

April 29, 2019

Submission of camera-ready text

May 31, 2019

Official language of Symposium is English