

# **800 Years of Space at the University of Padua**

**800 Years of Space at the University of Padua**

**Conference celebrating 800 years of  
Science, Technology, Humanities, Art and Innovation  
in Space at the University of Padua**

**September 7 - 9, 2022**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Welcome Address and Remembrance of Prof. Stefano Debei by the Rector of the University, D. Mapelli**

*Wednesday, 7 September 2022 09:30 (10 minutes)*

**Session Classification:** Opening ceremony

Contribution ID: 2

Type: **not specified**

## **Welcome address by the Mayor of Padova, S. Giordani**

*Wednesday, 7 September 2022 09:40 (10 minutes)*

**Session Classification:** Opening ceremony

Contribution ID: 3

Type: **not specified**

## **President of Italian Space Agency (ASI), G. Saccoccia**

*Wednesday, 7 September 2022 09:50 (20 minutes)*

**Session Classification:** Opening ceremony

Contribution ID: 4

Type: **not specified**

## **The significance of the conference in the frame of the 800 years celebrations**

*Wednesday, 7 September 2022 10:40 (20 minutes)*

**Presenter:** PAVANELLO, S. (UNIPD)

**Session Classification:** Opening ceremony

Contribution ID: 5

Type: **not specified**

## **The historic perspective, 800 years of Comet Halley in Padova**

*Wednesday, 7 September 2022 11:00 (20 minutes)*

**Presenters:** BARBIERI, C. (UNIPD); BERTINI, I. (UNIPARTHENOPE)

**Session Classification:** Opening ceremony

Contribution ID: 6

Type: **not specified**

## **Space in the Veneto Region, Science and Industry**

**Presenter:** TBD

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 7

Type: **not specified**

## **Space and Innovation at the University of Padova**

*Wednesday, 7 September 2022 14:30 (20 minutes)*

**Presenter:** DUGHIERO, F. (UNIPD)

**Session Classification:** Science, Technology and Innovation in Space



Contribution ID: 8

Type: **not specified**

## **Space and Biomedicine at the University of Padova**

*Wednesday, 7 September 2022 12:40 (20 minutes)*

**Presenter:** NARICI, M. (UNIPD)

**Session Classification:** Opening ceremony

Contribution ID: 9

Type: **not specified**

## **The Space Programs of ASI in Medicine: Global Exploration Roadmap**

*Wednesday, 7 September 2022 13:00 (20 minutes)*

**Presenter:** MASCETTI, G. (ASI)

**Session Classification:** Opening ceremony

Contribution ID: 11

Type: **not specified**

## **Giuseppe Colombo and Space Geodesy**

*Wednesday, 7 September 2022 16:30 (20 minutes)*

**Presenter:** CAPORALI, A. (UNIPD)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 12

Type: **not specified**

## **The Galileo Navigation Satellite System: status update and tribute to Galileo Galilei**

*Wednesday, 7 September 2022 17:10 (20 minutes)*

**Presenter:** BUIST, P. (Galileo Reference Centre, EUSPA)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 15

Type: **not specified**

## **Public conference of Astronauts at Sala dei Giganti: From Space Shuttle to the future Moon and Mars exploration.**

*Wednesday, 7 September 2022 21:00 (1h 30m)*

Public conference at Sala dei Giganti with Telmo Pievani:

- Roberto Ragazzoni presents Maurizio Cheli (Space Shuttle Columbia STS-75 mission)
- Video connections with Italian astronaut Luca Parmentino at the NASA Johnson Space Center, Houston

Contribution ID: 16

Type: **not specified**

## **Preserving muscle function in space**

*Thursday, 8 September 2022 09:50 (20 minutes)*

**Presenter:** FERRIGNO, G. (POLMI)

**Session Classification:** Spaceflight, Human factors

Contribution ID: 17

Type: **not specified**

## **Nutritional aspects of Human Space Flight**

*Thursday, 8 September 2022 10:10 (20 minutes)*

**Presenter:** BIOLO, G. (UNITS)

**Session Classification:** Spaceflight, Human factors

Contribution ID: 18

Type: **not specified**

## **Psychological aspects of Human Space Flight**

*Thursday, 8 September 2022 10:30 (20 minutes)*

**Presenter:** ANGRILLI, A. (UNIPD)

**Session Classification:** Spaceflight, Human factors



Contribution ID: 19

Type: **not specified**

## **Changes in astronauts' brain after long duration space missions**

*Thursday, 8 September 2022 10:50 (20 minutes)*

**Presenter:** MARINO, M. (UNI Leuven)

**Session Classification:** Spaceflight, Human factors

Contribution ID: 20

Type: **not specified**

## **Do plants move differently in space?**

*Thursday, 8 September 2022 12:20 (20 minutes)*

**Presenter:** CASTIELLO, U. (UNIPD)

**Session Classification:** Space and Plants

Contribution ID: 21

Type: **not specified**

## **Photosynthesis under simulated exoplanetary conditions**

*Thursday, 8 September 2022 11:40 (20 minutes)*

**Presenter:** LA ROCCA, N. (UNIPD)

**Session Classification:** Space and Plants

Contribution ID: 22

Type: **not specified**

## The Apollo Moon Trees

*Thursday, 8 September 2022 12:40 (20 minutes)*

**Presenter:** WILLIAMS, D. (NASA Goddard)

**Session Classification:** Space and Plants

Contribution ID: 23

Type: **not specified**

## **Solar Radiation Phenomena, from SoHO to Solar Orbiter**

*Thursday, 8 September 2022 14:30 (20 minutes)*

**Presenter:** NALETTO, G. (UNIPD)

**Session Classification:** Living in Space Habitats, resources and dangers

Contribution ID: 24

Type: **not specified**

## **Lunar and Martian Resources**

*Thursday, 8 September 2022 15:10 (20 minutes)*

**Presenter:** FLAMINI, E. (U. Chieti)

**Session Classification:** Living in Space Habitats, resources and dangers

Contribution ID: 26

Type: **not specified**

## **Genomic Changes Driven by Radiation-Induced DNA Damage and Microgravity in Human Cells**

*Thursday, 8 September 2022 14:50 (20 minutes)*

**Presenter:** MOGNATO, M. (UNIPD)

**Session Classification:** Living in Space Habitats, resources and dangers

Contribution ID: 27

Type: **not specified**

## **The Austrian Space Forum (OeWF) experience on space habitats analogues**

*Thursday, 8 September 2022 15:30 (20 minutes)*

**Presenter:** R. ALBRECHT AND G. GROEMER (OeWF)

**Session Classification:** Living in Space Habitats, resources and dangers



Contribution ID: 29

Type: **not specified**

## Astronaut analogs

*Friday, 9 September 2022 14:51 (7 minutes)*

**Presenter:** CINELLI, I. (AIKO)

**Session Classification:** Video Talks

Contribution ID: 31

Type: **not specified**

## **President of Istituto Nazionale di Astrofisica (INAF), M. Tavani**

*Wednesday, 7 September 2022 10:10 (20 minutes)*

**Session Classification:** Opening ceremony

Contribution ID: 32

Type: **not specified**

## **The Space Science Programme of ESA**

*Wednesday, 7 September 2022 11:40 (20 minutes)*

**Presenter:** COLANGELI, L. (ESA)

**Session Classification:** Opening ceremony

Contribution ID: 33

Type: **not specified**

## **Space Activities at CISAS**

*Wednesday, 7 September 2022 12:00 (20 minutes)*

**Presenter:** PIOTTO, G. (UNIPD - CISAS)

**Session Classification:** Opening ceremony

Contribution ID: 34

Type: **not specified**

## **Space programs at the INAF - Astronomical Observatory of Padova**

*Wednesday, 7 September 2022 12:20 (20 minutes)*

**Presenter:** RAGAZZONI, R. (INAF - OAPD)

**Session Classification:** Opening ceremony

Contribution ID: 35

Type: **not specified**

## **European programs in Biomedicine of Space: Education, (Operational) Development**

**Presenter:** GREEN, D. (ESA)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 36

Type: **not specified**

## **25 years of Research Projects on Space Data, Instruments and Astronautics**

*Wednesday, 7 September 2022 15:10 (20 minutes)*

**Presenter:** FOING, B. (ILEAWG & EuroMoonMars)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 37

Type: **not specified**

## **From Mercury to the Medicean Moons: BepiColombo and Juice**

*Wednesday, 7 September 2022 15:50 (20 minutes)*

**Presenter:** CREMONESE, G. (INAF)

**Session Classification:** Science, Technology and Innovation in Space



Contribution ID: **38**

Type: **not specified**

## The “Giuseppe Colombo”Matera station of ASI

*Wednesday, 7 September 2022 16:50 (20 minutes)*

**Presenter:** BIANCO, G. (ASI)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 39

Type: **not specified**

## **The ESA PANGAEA training program for astronauts (by video connection)**

*Wednesday, 7 September 2022 16:10 (20 minutes)*

**Presenter:** MASSIRONI, M. (UNIPD)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 40

Type: **not specified**

## Round Table Discussion on Space Future

*Wednesday, 7 September 2022 17:30 (1h 10m)*

convener G. Caprara (journalist)

panelists:

P. Benvenuti (UNIPD),

P. Cooper (economist),

V. La Regina (president NanoRacks UE),

V. Giorgio (Thales Alenia Space),

R. Ayazi (Nereus),

S. Di Pippo (Bocconi University),

M. Praet (ESA)

**Session Classification:** Science, Technology and Innovation in Space

Contribution ID: 41

Type: **not specified**

## **Human factors in space: why and how to measure them**

*Thursday, 8 September 2022 09:30 (20 minutes)*

**Presenter:** BABILONI, F. (UNIROMA)

**Session Classification:** Spaceflight, Human factors

Contribution ID: 42

Type: **not specified**

## Space Farming

*Thursday, 8 September 2022 12:00 (20 minutes)*

**Presenter:** DE PASCALE, S. (UNINA - Federico II)

**Session Classification:** Space and Plants

Contribution ID: 43

Type: **not specified**

## **Electrodynamic tethers to help the sustainability of near-Earth space**

*Thursday, 8 September 2022 16:50 (20 minutes)*

**Presenter:** LORENZINI, E. (UNIPD)

**Session Classification:** Innovation on Space Systems at CISAS

Contribution ID: 44

Type: **not specified**

## **Enabling propulsion technologies at University of Padua for future mini satellite missions**

*Thursday, 8 September 2022 17:10 (20 minutes)*

**Presenter:** PAVARIN, D. (UNIPD)

**Session Classification:** Innovation on Space Systems at CISAS

Contribution ID: 45

Type: **not specified**

## **Research activities in the field of space debris at the University of Padova**

*Thursday, 8 September 2022 17:30 (20 minutes)*

**Presenter:** FRANCESCONI, A. (UNIPD)

**Session Classification:** Innovation on Space Systems at CISAS



Contribution ID: 46

Type: **not specified**

## **Solar pressure on spacecraft: problems and opportunities**

*Thursday, 8 September 2022 17:50 (20 minutes)*

**Presenter:** BRUNELLO, P.F. (UNIPD)

**Session Classification:** Innovation on Space Systems at CISAS

Contribution ID: 47

Type: **not specified**

## Young Professionals

*Thursday, 8 September 2022 18:10 (50 minutes)*

- L. Barilaro (MCAST): Space activities at the Malta College of Arts, Science & Technology
- S. Crotti (PoliMi & EuroMoonMars): Habitat Internal Design and Human Factors Studies
- M. Campisi (UNIPD): Space and Biological ageing
- T. Giacon (UNIPD): Astronaut analog EMMPOL EXPERIENCE
- N. Sztajnkrzyca (UNIPD): Astronaut analog CHILE EXPERIENCE
- G. Schievano (UNIPD): Satellite Navigation
- A. Barbaro (GEOS): Shock origin of diamonds in ureilitic meteorites
- I. Tomasi (UNIPD, GEOS): Earth-Moon-Mars analogues: lavatubes and possible underground settlements.

**Session Classification:** Session on Young Professionals and Students experiences and ideas

Contribution ID: 48

Type: **not specified**

## **Space Diplomacy: a new paradigm for international relations?**

*Friday, 9 September 2022 09:30 (20 minutes)*

**Presenter:** BURIGANA, D. (UNIPD)

**Session Classification:** Session on Policy in Space

Contribution ID: 49

Type: **not specified**

## **Outer space is not a legal vacuum - and it is not yours, either**

*Friday, 9 September 2022 09:50 (20 minutes)*

**Presenter:** ZANNONI, D. (UNIPD)

**Session Classification:** Session on Policy in Space

Contribution ID: 50

Type: **not specified**

## **Microelectronics and the global race to space**

*Friday, 9 September 2022 10:10 (20 minutes)*

**Presenter:** PACCAGNELLA, A. (UNIPD)

**Session Classification:** Session on Policy in Space

Contribution ID: 51

Type: **not specified**

## Quantum Communications in Space

*Friday, 9 September 2022 10:30 (20 minutes)*

**Presenter:** VILLORESI, P. (UNIPD)

**Session Classification:** Session on Policy in Space

Contribution ID: 52

Type: **not specified**

## **Theology to the test of the extraterrestrial life**

*Friday, 9 September 2022 10:50 (20 minutes)*

**Presenter:** ARNOULD, J. (CNES)

**Session Classification:** Session on Policy in Space

Contribution ID: 53

Type: **not specified**

## **Possible Future Developments in Space, Science, and Universities**

*Friday, 9 September 2022 11:10 (20 minutes)*

**Presenter:** ALBRECHT, R. (OeWF)

**Session Classification:** Session on Policy in Space



Contribution ID: 54

Type: **not specified**

## **ArtMoonMars program and ITACCUS projects bridging Space and Arts**

*Friday, 9 September 2022 12:00 (20 minutes)*

**Presenter:** FOING, B. (ILEWG & EuroMoonMars)

**Session Classification:** Session on Humanities and Art in Space

Contribution ID: 55

Type: **not specified**

## **The Moon Gallery: an introduction**

*Friday, 9 September 2022 12:20 (20 minutes)*

**Presenters:** SITNIKOVA, A. (Moon Gallery Foundation); GLUKOVA, E. (Moon Gallery Foundation)

**Session Classification:** Session on Humanities and Art in Space

Contribution ID: 56

Type: **not specified**

## **Saints and Sinners in the sky (video talk)**

*Friday, 9 September 2022 12:40 (20 minutes)*

**Presenter:** MENDILLO, M. (Boston Univ.)

**Session Classification:** Session on Humanities and Art in Space

Contribution ID: 57

Type: **not specified**

## **Round Table: L'importanza dei distretti regionali Italiani nella new space economy**

*Friday, 9 September 2022 15:00 (1 hour)*

M. Barbarossa (Sidereus),  
V. Cafaggi (Dainese Dairlab),  
G. Dal Lago (Officina Stellare),  
G. Marchiori (E.I.E. Group),  
F. Zoppas (Regione Veneto, Rir-Air)

**Session Classification:** Round Table discussion and closing ceremony

Contribution ID: 58

Type: **not specified**

## **Biology and Radiation Research in Space and Analogues**

*Friday, 9 September 2022 14:37 (7 minutes)*

**Presenter:** BAATOUT, S. (SCK Leuven)

**Session Classification:** Video Talks

Contribution ID: 59

Type: **not specified**

## Women and Poetry in Space

*Friday, 9 September 2022 14:44 (7 minutes)*

**Presenter:** SOBEL, D. (Scientific American)

**Session Classification:** Video Talks

Contribution ID: **60**

Type: **not specified**

## **Director ILEAWG & EuroMoonMars program**

*Wednesday, 7 September 2022 10:30 (10 minutes)*

**Presenter:** FOING, B. (ILEAWG & EuroMoonMars)

**Session Classification:** Opening ceremony

Contribution ID: 61

Type: **not specified**

## **From Hubble to Webb: international collaboration at its best**

*Wednesday, 7 September 2022 14:50 (20 minutes)*

**Presenter:** SIRIANNI, M. (ESA)

**Session Classification:** Science, Technology and Innovation in Space



Contribution ID: 63

Type: **not specified**

## **Programs of ASI Science Directorate for Universities and Research Institutes**

*Thursday, 8 September 2022 16:30 (20 minutes)*

**Presenter:** COSMO, Mario (ASI)

**Session Classification:** Innovation on Space Systems at CISAS

Contribution ID: **64**

Type: **not specified**

## **Space Image Processing**

*Friday, 9 September 2022 14:30 (7 minutes)*

**Presenter:** BONORA, E. (Freelance)

**Session Classification:** Video Talks