

**SESSION 27**  
**SYMPOSIUM 8**  
**RED PLANET EXPLORATION:**  
**RESEARCH STATUS OF LIFE SUPPORT SYSTEMS AND**  
**INFRASTRUCTURES FOR COLONIZATION OF MARS**

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*Tuesday AM, September 10 2019, 9.30 – 13.00*

*Chair: Eng. Nunzia Favaloro, (CIRA – Capua) – Prof.ssa Stefania De Pascale,  
Università degli Studi di Napoli Federico II*

*Room: Cloister*

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1. M. Balsamo, L.I. Popova, W. Pawlak, L. Pieroni, V. Zolesi, A. Donati  
**FOOD PRODUCTION IN SPACE TO SUSTAIN CREWS DEMANDS DURING THE EXPLORATION OF MARS**
  
2. D. Billi, B. Gallego Fernandez, A. Napoli, C. Mosca, C. Fagliarone  
**EXPLOITATION OF EXTREME TOLERANT CYANOBACTERIA FOR ENABLING HUMAN OUTPOSTS ON MARS**
  
3. S. Proietti, S. Moscatello, M. Adami, A. Battistelli  
**INTEGRATION OF HIGHER PLANTS IN BLSS: TECHNOLOGICAL NEEDS FOR FULL USE OF PLANT VERSATILITY AND POTENTIAL IN FUTURE TEST FACILITIES AND SPACE MODULES.**
  
4. L. Nardi, S. Piccirillo, G. Metelli, G. Corallo, E. Bennici, M. Potenza, F. Cavaliere, G. Mascetti, E. Benvenuto  
**“HORTEXTREME”. PROTECTED HORTICULTURE IN INFLATABLE FACILITIES, RESISTANT TO EXTREME CONDITIONS, FOR THE PRODUCTION OF HIGH NUTRITIONAL VALUE PLANTS: A FIELD EXPERIMENT IN THE AMADEE-18 MISSION**
  
5. F. Santoni, F. Piergentili, S. De Pascale, L. Nardi, E. Benvenuto, G. Mascetti, S. Mari, P. Marzioli, L. Gugliermetti, L. Frezza, D. Amadio, A. Gianfermo, F. Curianò, S. Hadji Hossein, M.G. Pancalli, E. Vestito  
**GREENCUBE, A NANOSATELLITE TEST BED FOR PLANT CULTIVATION IN A MICROGRAVITY ENVIRONMENT, IN PREPARATION FOR MANNED MISSIONS TOWARDS MARS**
  
6. S. De Pascale, C. Arena, G. Aronne, V. De Micco, A. Pannico, R. Paradiso, Y. Roupael

**PLANT BIOLOGY AND CROP PRODUCTION IN EXTRA-TERRESTRIAL ENVIRONMENTS: CHALLENGES AND OPPORTUNITIES**

**SESSION 28**  
**SYMPOSIUM 8**  
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*Tuesday PM, September 10 2019, 14.30 – 19.00*

*Chair: Eng. Nunzia Favalaro, (CIRA – Capua) – Eng. Raimondo Fortezza, Telespazio Spa*

*Room: Cloister*

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1. L. Narici, G. Reitz, C. Lobascio

**INTEGRATED SIMULATIONS OF MARS FLIGHTS ON THE ISS**

2. A. Genova, D. Durante, V. Notaro

**A PRELIMINARY MISSION DESIGN OF A PAIR OF SPACECRAFT TO INVESTIGATE THE MARTIAN CLIMATE AND INTERIOR**

3. M. Deffacis, L. Bramante, C. Picco, D. Bussi, M. Barrera, P. Franceschet

**THE MARS TERRAIN SIMULATOR: AN INDOOR ANALOGUE FACILITY FOR VALIDATION AND SIMULATION OF THE EXOMARS ROVER OPERATIONS AND IN SUPPORT TO THE EXOMARS SURFACE MISSION**

4. G. Pontetti, A. Pontetti, M. Lemme, A. De Santis

**MIG, MILITARY INNOVATIVE GREENHOUSES**

5. R. Fortezza, A. Ceriello, D. De Simone, D. Schubert, P. Zabel, M. Bamsey, C. Zeidler, V. Vrakking

**THE EDEN ISS FACILITY AS PLATFORM FOR PLANT EXPERIMENTS IN EXTREME ENVIRONMENT**

6. A. Delfini, F. Santoni, R. Pastore, F. Piergentili, M. Delfini, M. Maschetti, M. Albano, A. Vricella, R. Matassa

**SPACE ENVIRONMENT INTERACTION ENGINEERING RESEARCH AT AEROSPACE SYSTEMS LABORATORY (LSA)**