

WORKSHOP

Materials in the Space Environment

May 17th, 2016

Italian Space Agency

Via del Politecnico, 00133 Rome, Italy

8.50 Opening

Chair: Prof. Loredana Santo, *University of Rome 'Tor Vergata'*

9.00 Welcome of the Authorities

Prof. Roberto Battiston, *President of the Italian Space Agency (ASI)*

Prof. Giuseppe Novelli, *Rector of the University of Rome 'Tor Vergata'*

Gen. Enzo Vecciarelli, *Chief of the Italian Air Force (ItAF)*

Prof. Fernando Ferroni, *President of the National Institute for Nuclear Physics (INFN)*

Prof. Massimo Inguscio, *President of the National Research Council (CNR)*

Prof. Luigi Carrino, *President of the Italian Aerospace Research Centre (CIRA)*

Dr. Ghidini Tommaso, *Head of the Materials Technology Section ESA/ESTEC*

Dr. Flavio Lucibello, *Coordinator of KET Lab*

9.50 Research Session

Kenol Jules, *ISS Payloads Office, NASA Johnson Space Center*

"Research Capability of the International Space Station for a Wide Spectrum of Scientific Disciplines, Including Material Science"

Kim de Groh, *NASA Glenn Research Center*

"Materials International Space Station Experiment (MISSE): Overview, NASA Glenn's Experiments and Future Needs"

Jack J.W.A. van Loon, *DESC-VU University Amsterdam/ESA Estec Noordwijk*

"Gravity Related Research Capability of Ground-Based Facilities : Life and Physical Sciences"

Gabriele Mascetti, *Italian Space Agency (ASI)*

"Italian ISS utilization: Results and Perspectives"

11.20 Coffee Break

11.50 Research Session

Marco Durante, *Trento Institute for Fundamental Physics and Applications (TIFPA)*

"Advanced materials for space radiations shielding"

Stefania Cantoni, *Italian Aerospace Research Centre (CIRA)*

"High Temperature Materials & Structures for Space applications: CIRA' s experience and future activities"

Giacomo Cao, *University of Cagliari*

"Zr-, Hf- and Ta-based Ultra High Temperature Ceramics for the Space Environment"

Diletta Sciti, *Institute of Science and Technology for Ceramics ISTE (CNR)*

"Ultrahigh temperature ceramics and composites for aerospace environments"

Fabrizio Quadrini, *Department of Industrial Engineering, University of Rome 'Tor Vergata'*

"Materials for Space applications: on-orbit experiments of Tor Vergata and new perspectives"

Walter Villadei, *Italian Air Force (ItAF)*

"Perspective on future experiments enabling new aerospace capabilities"

13.30 Lunch Break

14.45 Industrial Session

Antonia Simone, *Thales Alenia Space*

"Nanostructured layers for biodegradation reduction in Space Structures"

Francesca Lillo, *Avio S.p.A.*

"New Generation of Carbon-Epoxy Prepreg for structures of Vega and Ariane 6 Launchers: a high-performance and cost-effective approach"

Luca Bancallari e Simone Gubbioni, *MBDA Italia*

"MBDA Italia R&D activities in the field of materials, production technologies, health management in aerospace and defense"

Alessandro Donati, *Kayser Italia S.r.l.*

"Payload development and support to crew operations for scientific investigations and technology demonstration on-board the International Space Station"

Renato D'Auria, *ALTEC S.p.A.*

"ALTEC and the ISS commercial exploitation"

Luciano Battochio, *Aero Sekur S.p.A.*

"Flexible and foldable materials for Space Applications"

Stefano Gualandris, *Technosprings*

"Shrek (shockless release kinematic) shape memory mechanism for latch and release of satellite and aerospace modules and payloads"

