

IAA ITALIAN REGIONAL SYMPOSIUM ON SPACE DEBRIS OBSERVATIONS FROM BASILICATA

9 - 10 JULY 2019, CASTELGRANDE (POTENZA), ITALY

July 9th: CASTELGRANDE "EUROPEAN CAPITAL OF CULTURE FOR A DAY"

(Initiative within "Matera 2019 European Capital of Culture" Project)



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Comune di Castelgrande





IAA ITALIAN REGIONAL SYMPOSIUM ON SPACE DEBRIS OBSERVATIONS FROM BASILICATA

July 9th - 10th, 2019

Conference Program

Location: **Castelgrande** (Province of Potenza), Basilicata Region, Southern Italy.

TUESDAY, July 9th, 2019

Morning:

09:30

Opening Ceremony

Welcome Address – **Filippo Graziani** (*GAUSS Srl President, Professor of Astrodynamics, IAA Member and Trustee*)

Greetings

- **Domenico Alberto Muro** (*Castelgrande Mayor*) et al. municipal councilors
- **Antonio Viviani** (*Professor at Department of Industrial and Information Engineering, Salerno, Italy, IAA Italy Regional Secretary*)

10:00

Lectures (5 min for Q&A are provided to all lecture slots)

Lecture n.1 – Christophe Bonnal (Senior Expert at CNES-Centre National d'Etudes Spatiales, France, IAA Member)

"Future sustainable operations in space: the need for improved precision of the orbital parameters"

Lecture n.2 – Heiner Klinkrad (Honorary Professor, Institute of Space Systems, Germany, IAA Member)

"The current Status and projected Evolution of the Space Debris Environment"

Lecture n.3 – Miguel Bello-Mora (DEIMOS Space Managing Director, Madrid, Spain, IAA Member)

"Drivers for the DEIMOS Sky Survey (DeSS) Observatory"

11:30 - Coffee break

11:40

Lectures

Lecture n.4 – Mariella Graziano (Executive Director Space Systems and Robotics at GMV, Madrid, Spain)

"GMV experience on effective space debris monitoring, limitation and potential active removal"

Lecture n.5 – Vladimir Agapov (Senior Researcher at KIAM Keldysh Institute of Applied Mathematics, IAA Corresponding Member)

(TBD)

Lecture n.6 – Thomas Schildknecht (Professor at University of Bern, Switzerland, Optical Astronomy Group, Astronomical Institute, IAA Member)

“Space Debris - Providing the Scientific Foundation for Sustainable Use of Outer Space”

Lecture n.7 – Alexander Serkin (Director General at International Space Company KOSMOTRAS, Moscow, Russian Federation, IAA Corresponding Member)

“The launch system for micro / nano satellites based on Soyuz LV”

13:20 - Lunch

Afternoon:

14:20

Lectures

Lecture n.8 – Mikhail Ovchinnikov (Head of Space Systems Dynamics Department at KIAM Keldysh Institute of Applied Mathematics, Doctor of Science, Professor, Moscow, Russian Federation, IAA Member)

“Active Space Debris Closing Imitation using Microsatellite Mock-ups on Air Bearing Test Banch “COSMOS””

Lecture n.9 – Anna Guerman (Associate Professor at Electromechanical Engineering of University of Beira Interior, Portugal, IAA Member)

“Dynamics of foreign objects and debris on the surface of a small celestial body”

Lecture n.10 – Carmen Pardini & Luciano Anselmo (Staff Researchers at Space Flight Dynamics Laboratory of ISTI/CNR – Pisa, Italy, IAA Members)

“The low LEO protected region: new challenges from ASAT tests, small satellites and mega constellations”

Lecture n.11 – Mauro Pontani (Associate Professor of Aerospace Engineering at “Sapienza Università di Roma”, Italy, IAA CM)

“An overview on different orbit evolutions of space debris”

15:50 - Coffee break

16:00

Introduction to Castelgrande Space Debris Observatory (CastelGAUSS).

Lecture n.12 – Igor Molotov (*Manager of KIAM Keldysh Institute of Applied Mathematics – Russian Academy of Sciences, Russian Federation*)

“Current state and directions of development of the ISON network”

Lecture n.13 – Giovanni Laneve (*Associate Professor at School of Aerospace Engineering, Roma, Italy*)

“Computing less cloudy areas map for Italy by using satellite images”

Lecture n.14 – Sergei Schmalz (*KIAM Astronomer at CastelGAUSS Observatory*)

“CastelGAUSS Project: optical observations at the ISON-Castelgrande Observatory”

Lecture n.15 – Kirill Blagodarov, *enthusiastic young talent in the Space Debris field, from Dnipro, Ukraine.*

17:20 - Visit to CastelGAUSS Observatory

21:00 - Dinner at Hotel Miramonti

WEDNESDAY, July 10th, 2019

Morning:

09:30

Lectures

Lecture n.16 – Vicente Díaz & Miguel Angel Vázquez (Managing Directors & Co-Founders DHV Technology, Málaga, Spain)

“Design and Manufacturing of Solar Array for Cubesat Deep Space Missions”

Lecture n.17 – Ignazio Ciufolini (Associate Professor at Physics and Engineering Department of “Università del Salento”, Italy).

Antonio Paolozzi (Associate Professor at Aerospace Engineering Faculty of “Sapienza Università di Roma”, Italy)

“Space debris issues for LARES satellite”

Lecture n.18 – Jiri Silha, (Researcher at Comenius University - Division of Astronomy and Astrophysics, Bratislava, Slovakia)

“Slovak AGO70 Telescope Dedicated to Space Debris Research”

10:50 – Coffee break

11:10

Lectures

Lecture n.19 – Stefano Carletta (PhD Researcher at the School of Aerospace Engineering of Roma, Italy)

“Deorbiting of microsattellites using compact electrodynamic actuators for space debris mitigation”

Lecture n. 20 – Piermarco Martegani (Founder and CEO of AVIOSONIC Space Tech S.r.l.s)

“DeCAS: a space debris mitigation system”

Concluding Remarks

Paolo Teofilatto (Dean of the School of Aerospace Engineering of Roma, Italy, IAA Member)

13:00 – Lunch

Afternoon – Visit of Matera

20:00 - Dinner in Matera offered by GAUSS

22:00 - Transfer to the Hotel