

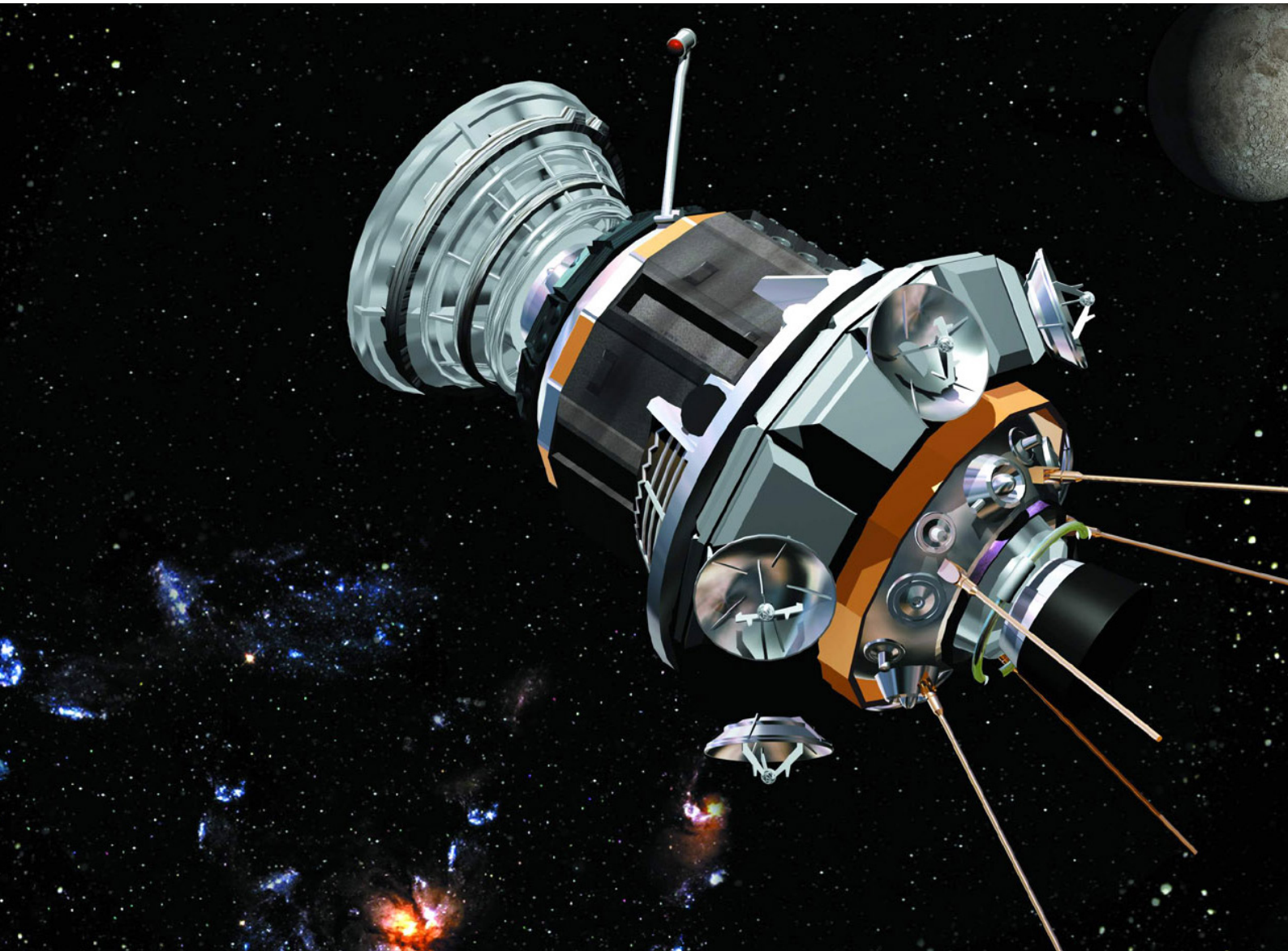
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Scientific Program

3rd International Conference and Exhibition on

Satellite & Space Missions

May 11-13, 2017 Barcelona, Spain



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942nd Conference

Gatwick

conference**series**.com 08:30-09:00

Opening Ceremony

Keynote Forum

09:00-09:05 Introduction

09:05-09:45 Title: A new era of planetary exploration with small satellite platforms

Benjamin K Malphrus, Morehead State University, USA

09:45-10:25 Title: Space research at AFOSR

Kent Miller, Air Force Office of Scientific Research, USA

Networking & Refreshments 10:25-10:45 @ Meeting Halls

10:45-11:25 Title: Post-ISS concept for 2025 and beyond

Oliver Romberg, German Aerospace Center, Germany

Group Photo

Sessions: Space Missions | Space exploration | Earth Observation Satellites | Satellite Orbits: Models, Methods, and Applications | Weather Satellites | Satellite Navigation and Communication | Mobile Satellite Communication Networks | Space Weather | Earth Science

Session Chair: Nicolas H Younan, Mississippi State University, USA

Session Co-chair: Joseph Seckbach, The Hebrew University of Jerusalem, Israel

Session Introduction

11:25-11:45 Title: Lunar IceCube: Pioneering technologies for interplanetary small satellite exploration

Benjamin K Malphrus, Morehead State University, USA

11:45-12:05 Title: Electron photoavalanche diode arrays: A new technology for noiseless high speed near infrared sensors

Gert Finger, European Southern Observatory, Germany

12:05-12:25 Title: Nanosatellites, the tool for a new economy of space: Opening space frontiers to a wider audience

Gloria Garcia Cuadrado, Celestia Aerospace, Spain

12:25-12:45 Title: Research methodology in mechanical systems and bionics from Plato to contemporary science

Simona-Mariana Cretu, University of Craiova, Romania

12:45-13:05 Title: SUCHAI 2 and 3: Scientific grounds and challenges of the new space mission of the University of Chile

Marcos A Diaz, University of Chile, Chile

Lunch Break 13:05-13:45 @ Mediteraneo

13:45-14:05 Title: Proposals on multi-channel methods for the simultaneous remote sensing of $[O(^3P)]$, $[O_3]$ and $[CO_2]$ altitude profiles in the mesosphere and lower thermosphere in daytime

Valentine A Yankovsky, St. Petersburg State University, Russia

14:05-14:25 Title: Single-satellite global positioning system

Alexander V Bagrov, Institute of Astronomy of the Russian Academy of Sciences (INASAN), Russia

14:25-14:45 Title: Optimal detection of changes in real-time data: Applications in satellites

Peter Johnson, University of Manchester, UK

14:45-15:05 Title: Using Object Based Image Analysis to monitor soil aggregate breakdown under natural conditions

Irena Ymeti, University of Twente, Netherlands

15:05-15:25 Title: Space exploration: A matter for governments or for private operators

Giancarlo Genta, Polytechnic University of Turin, Italy

15:25-15:55 **Title: Hypothetical discovery of life on Venus**
Leonid V Ksanfomality, Space Research Institute, Russia

Networking & Refreshments 15:55-16:15 @ Meeting Halls

16:15-16:35 **Title: AURORA project: A challenge for synergistic exploitation of Sentinel-4/-5 ozone operational products**
Ugo Cortesi, Institute for Applied Physics "Nello Carrara" (IFAC-CNR), Italy

16:35-16:55 **Title: Micro-Satellite hosted laser-gated system for space debris tracking, forest fires and plants' health monitoring and underground facilities' location**
Yavor Yossifov Shopov, Sofia University, Bulgaria

16:55-17:15 **Title: Necklaces theory applied to satellite constellation design**
Eva Tresaco, University of Zaragoza, Spain

17:15-17:35 **Title: Spatial technology: Hydrological perspectives**
Imran Ahmad, Debre Tabor University, Ethiopia

17:35-17:55 **Title: Future intelligent earth observing satellites**
George Zhou, Guilin University of Technology, China

Panel Discussion

Day 2 May 12, 2017

Gatwick

Keynote Forum

09:00-09:05 **Introduction**

09:05-09:45 **Title: High resolution satellite precipitation estimation based on cloud classification**
Nicolas H Younan, Mississippi State University, USA

09:45-10:25 **Title: Visual analysis on multidimensional massive data**
Dorian Gorgan, Technical University of Cluj-Napoca, Romania

Networking & Refreshments 10:25-10:45 @ Meeting Halls

10:45-11:25 **Title: Unified satellite image fusion for sustainable urban environment**
Bo Huang, Chinese University of Hong Kong, Hong Kong

11:25-12:05 **Title: Fundamental principles of gyroscope theory**
Ryspek Usubamatov, Kyrgyz State Technical University, Kyrgyzstan

Sessions: Remote Sensing Satellites and GIS | Aerospace and Mechanical Engineering | Asteroid Impact Mission (AIM) | Earthquake and Structural Dynamics | Space Weather | Military Satellites | Orbital Mechanics | Materials Science in Space

Session Chair: Gloria Garcia-Cuadrado, Celestia Aerospace, Spain

Session Co-chair: Dorian Gorgan, Technical University of Cluj-Napoca, Romania

Session Introduction

12:05-12:25 **Title: Engaging the user community in developing Earth observing remote sensing data products**
Vanessa M Escobar, NASA Goddard Space Flight Center, USA

12:25-12:45 **Title: Is there life on planets and satellites? Examples from extremophilic candidates on earth**
Joseph Seckbach, Hebrew University of Jerusalem, Israel

12:45-13:05 **Title: Modeling the space environment and its effects on spacecraft and astronauts using SPENVIS**
Stijn Calders, Royal Belgian Institute for Space Aeronomy, Belgium

Lunch Break 13:05-13:45 @ Mediteraneo

13:45-14:05 **Title: New technologies applied to environmental remote sensing**
Emilio Ramírez-Juidías, University of Seville, Spain

14:05-14:25 **Title: Mars the harbinger of human survival**
Donald C Barker, MAXD Inc., USA

- 14:25-14:45** Title: **Application of remote sensing in mapping potential gold mineralization in Muteh gold mining area, Iran**
Hooshang Asadi Haroni, The University of Western Australia, Australia
- 14:45-15:05** Title: **The panorama of European launchers and their evolution**
Jean-Marc Astorg, National Center for Space Studies (CNES), France
- 15:05-15:25** Title: **An online batch-based fusion filter for navigation in Mars final approach phase**
Zhengshi Yu, Beijing Institute of Technology, China

Networking & Refreshments+ Poster Presentations 15:25-15:55 @ Meeting Halls

- REC 01** Title: **Current status of development of solar coronagraph system**
Jihun Kim, Korea Astronomy & Space Science Institute, South Korea
- REC 02** Title: **Hamiltonian model of formation flying satellites in the critical circular orbits**
Shaheera A Altalhi, King Abdul-Aziz University, KSA
- REC 03** Title: **The combined Kepler 3rd law with universal stellar law: Derivation and application to extra solar systems investigation**
Alexander M Krot, United Institute of Informatics Problems-NAS, Belarus
- REC 04** Title: **Non-rocket launch from Mars**
Vladislav A Leonov, Institute of Astronomy of the Russian Academy of Sciences (INASAN), Russia
- REC 05** Title: **Solar 3-D printer for lunar construction**
Valentin K Sysoev, Lavochkin Association, Russia

Session Continues...

- 15:55-16:15** Title: **Sequential quadratic programming and metaheuristic methods applied to low-thrust interplanetary transfers**
Porzia Federica Maffione, Polytechnic University of Turin, Italy
- 16:15-16:35** Title: **Using of thermal vision cameras for remote location of caves on Mars for immediate shelters for astronauts and storage chambers**
Yavor Yossifov Shopov, Sofia University, Bulgaria
- 16:35-16:55** Title: **Flying Vehicles (FV) for air and space medium, which reactive force is generated by acceleration of electrically charged particles in a constant electric field implemented both inside and outside of the FV**
Gennady Semenovich Luk'yanchikov, Prokhorov General Physics Institute-RAS, Russia
- 16:55-17:15** Title: **The evolvement of the university orbital constellation of small satellites series AIST for scientific, educational and applied tasks in the field of remote sensing**
Ivan S Tkachenko, Samara University, Russia
- 17:15-17:35** Title: **Forcing of sunspot number oscillations on North Atlantic oscillations**
Shahinaz Yousef, Cairo University, Egypt
- 17:35-17:55** Title: **Evolution of mission, design and utilization trends of small and miniaturized satellites in developing countries**
Mohamed B Argoun, Cairo University, Egypt

Day 3 May 13, 2017

Extended Networking & Lunch 12:30-13:15 @ Mediteraneo

Award & Closing Ceremony