Sunday 13th May 2018

17:00 REGISTRATION
19:30 WELCOME COCKTAIL

Monday 14th May 2018

8:30 REGISTRATION
9:00 WELCOME COFFEE

ROOM

10:00 PLENARY SESSION – SEVILLA

CONFERENCE INTRODUCTION
Michel SCHELLER, President, Association Aéronautique et Astronautique de France, 3AF
Excmo. Sr. Don Juan ESPADES CEJAS, Mayor of Seville
Juan Carlos CORTEZ, Director for International Programmes, Spanish Center for Industrial Technological Development, CDTI
Giorgio SACCOCCIA & Dominique RIBEREAU, Space Propulsion Conference Chairs

10:30 AGENCIES ROUND TABLE ON SPACE MISSIONS: MID AND LONG TERM POLICIES
Moderator: Chiara MANFLETTI, ESA
Johann-Dietrich WÖRNER, Director General, European Space Agency, ESA
Stefan SCHLECHTRIEM, Director of the Institute of Space Propulsion, German Space Agency, DLR
Jean-Marc ASTORG, Director of Launchers, French Space Agency, CNES
Augusto CRAMAROSSA, Head of President Technical Cabinet, Italian Space Agency, ASI
Catherine MEALINGJONES, Director, UK Space Agency, UKSA (tbc)
Jorge LOMBA, Head of the ESA Programs Department, Spanish Center for Industrial Technological Development, CDTI
Sam SCIMEMI, Director for International Space Station, National Aeronautics and Space Administration, NASA
Oleg GORSHKOV, Director General, Central Research Institute of Machine Building, TsNII Mash

12:00 KEYNOTE SPEECH: VIEWS ON SPACE PROPULSION (LAUNCHERS AND ORBITAL)
Hervé GILIBERT, Chief Technical Officer, ArianeGroup

12:40 LUNCH

14:00 PRIMES AND OPERATORS VS SUPPLIERS VIEWS ON SPACE PROPULSION: SPACE TRANSPORTATION
Moderator: Donatella PONZANI, ESA
Luce FABREGUETTES, Executive Vice President, Arianespace
Julie VAN KLEECK, Vice President of Advanced Space Programs, Aeryn Rocketdyne
Giulio RANZO, Chief Executive Officer, AvioGroup
Hervé GILIBERT, Chief Technical Officer, ArianeGroup
Eleazar GONZALEZ CASAS, Chief Technical Officer, PLD Aerospace (tbc)
Sébastien AKNOUCHE, Vice President & General Manager – Services and Special Products, GKN Aerospace

15:30 COFFEE BREAK

16:00 PRIMES AND OPERATORS VS SUPPLIERS VIEWS ON SPACE PROPULSION : SPACECRAFT
Moderator: Cristina BRAMANTI, ESA
Cosmo CASAREGOLA, Propulsion, Mechanical and Thermal Systems, Engineering Department, Eutelsat
Rolf JANOWSKI, Director, OHB System AG
Nicola ZACCHED, Chief Executive Officer, SITAEL
Robert de TRY, Engineering Director, GOMspace
Steven AUSTIN, Propulsion Product Manager, Thales Alenia Space
Vincent JACOD, Head of Electrical Department, Airbus (tbc)
Mathias PERSSON, Business Director, Bradford ECAPS
Stefan HAESSLER, Vice President Orbital Propulsion, ArianeGroup

17:30 END OF DAY 1
19:00 TRADITIONAL DINNER
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<td>09:00</td>
<td>Propulsion systems developments for next generation of the European Vega Launcher</td>
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<td>E. D’Aversa, Italian Space Agency (ASI), IT</td>
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<td>Characterization of a Multiple Injectors for a Rocket Engine</td>
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<td>Statistical approach in structural mechanics for robust design of liquid rocket engines</td>
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<td>C. Manoletakis, ArianeGroup, DE</td>
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<td>In-Orbit Performance of the LISA Pathfinder Cold Gas Micro-Propulsion System</td>
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<td>G. Monte, Airbus Defence &amp; Space, GB</td>
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<td>HAN-based Monopropellant Thruster Development with New Heat-Resistant Catalyst</td>
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<td>10:40</td>
<td>Mission Scenarios for High-Power Electric Propulsion</td>
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<td>C. Pasarelli, Politecnico di Torino, IT</td>
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<td>Development of a high performance season – fed resistojet</td>
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<td>S. Centi, MTA Space Ltd, GB</td>
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<td>Dual Chemical-Electric Propulsion Systems Design for Interplanetary CubeSats</td>
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<td>Development and Ground Testing of the PM20 Bi-Propellant CubeSat Propulsion Module</td>
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<td>J. Wink, Hypersonic Technologies, NL</td>
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<td>Getting to Mars and beyond the initial missions</td>
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<td>3D-printed coaxial injector for a LOX/kerosene rocket engine</td>
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<td>M. Kuhn, German Aerospace Center (DLR), DE</td>
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<td>A presentation of a complete design cycle for optimized hybrid rocket motors</td>
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<td>J. Hjiksema, ONERA, FR</td>
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<td>13:00</td>
<td>15 years orbital operation summary of DRTS (Data Relay Test Satellite)</td>
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<td>Development of a new green propellant thruster in JHI (Mitsubishi Heavy Industries, Ltd.)</td>
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<td>D. Shinomi, Mitsubishi Heavy Industries (MHI), JP</td>
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<td>Enhancement of the maneuverability capabilities of a small spacecraft for remote sensing of the earth for stereoscopic surveys based on the unified platform AIST-2</td>
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<td>13:50</td>
<td>I. Tsuchimoto, Ibaraki University, Japan</td>
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<td>14:00</td>
<td>A. T. G. Finland Microwave Electrothermal Thruster for CubeSats and Small Satellites</td>
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<td>M. M. Davis, Pennsylvania State University, US</td>
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<td>Final Development of the Osaka Institute of Technology 2nd PROITERES Nano-Satellite with High-Power Electrothermal Pulsed Plasma Thrusters for Powered Flight</td>
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<td>Numerical fatigue life analysis of a prospective LCOH-coated core stage main combustion chamber wall and comparison to LH2 cooling</td>
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<td>J. Riccius, German Aerospace Center (DLR), DE</td>
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<td>An overview of the ESPSS Libraries</td>
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<td>15:30</td>
<td>Latest Developments and Future</td>
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<td>J. Mora, Empretems, Argouges, ES</td>
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<td>Initial orbital operation results of SLATS IES (Sun Engine Subsystem) and RCS (Reaction Control Subsystem)</td>
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<td>16:10</td>
<td>Green Propulsion Advancement and Infiltration</td>
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<td>H. Mulkey, NASA Goddard Space Flight Center, US</td>
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<td>Debris of Space Debris by Exposure of Plasma Flares Exposed from Electric Thrusters with PROITERES Nano-Satellite</td>
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<td>High Performance Resistojet Thruster: STAR Status Update</td>
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<td>M. Robinson, University of Southampton, GB</td>
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<td>Final Development of the Osaka Institute of Technology 2nd PROITERES Nano-Satellite with High-Power Electrothermal Pulsed Plasma Thrusters for Powered Flight</td>
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<td>Deorbit of Space Debris by Exposure of Plasma Flares Exposed from Electric Thrusters with PROITERES Nano-Satellite</td>
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<td>Performance Evaluation of 18W Class Water Resistojet: AQUARIUS for CubeSats</td>
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<td>18:20</td>
<td>K. Nishii, The University of Tokyo, Japan</td>
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<td>18:30</td>
<td>Performance Evaluation and Flight Model Design of the Water Resistojet Propulsion System: AQUARIUS for CubeSats</td>
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<td>18:40</td>
<td>A. Aanesland, ThrustMe, FR</td>
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<td>ThrustMe – a provider of electric space propulsion systems for the next generation satellites A. Aanesland, ThrustMe, FR</td>
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### Tuesday 15th May 2018

**TIME** | **ROOM** | **GIRALDA** | **TRIANGULAR** | **ESPANYA** | **LUNCH**
---|---|---|---|---|---
13:30 | Assessment of a European reusable VTOL launcher first stage demonstrator | E. Dornied, German Aerospace Center (DLR), DE | European Space Propulsion Mechanisms for Active Threat Vectoring | M. E. Ross, European Space Agency (ATG), NL | Influence of non-linear mixing effects onto flow and heat transfer in rocket combustion chambers | J. Schuster, German Aerospace Center (DLR), DE | Research and development of green propellant engines for space propulsion systems | Q. Lin, Shanghai Institute of Space Propulsion, CN | Green Propellant Thruster Design for LEO Platforms Active Debris Removal | D. Valerini, SITAEL, IT | Automated System Analysis and Design for Electric Propulsion Systems | E. Manfred, University of Stuttgart | Spatially resolved plasma power deposition in a radio-frequency electrothermal microthruster | S. Doyle, University of York, GB | Latest Progress of Micro-Propulsion Development Activities in BICE | Y. Shen, Beijing Institute of Control Engineering, CN |
14:30 | Aerothermal Analysis of Reusable Launcher Systems during Retro-propulsion Reentry and Landing | T. Naka, German Aerospace Center (DLR), DE | ARKA 5 firing test: combining Ariane 5 MPS nozzle production support and contribution to Ariane 6 nozzle design | F. Dufour, ArianeGroup, FR | Modeling of multi-phase effects in cold-gas nozzle flows | K. Makotha, ArianeGroup, DE | Development of near-anhydrous hydrogen peroxide (H2O2) for satellite propulsion and assessment of material compatibility for fluidic components and light weight propellant tanks | M. Wolf, ArianeGroup, DE | Architecture Features and Application Aspects of High-Power Spacecrafts with Electric Propulsion | A. Sotolabia, Keldysh Research Center, RU | A 17.8 GHz Microwave Electromagnetic Thruster for Cubesat and Small Satellites | M. Micci, Penn State University, US |
15:00 | LUNCH | | | | | | | | | | | |
Tuesday 15th May 2018

ROOM
PLENARY SESSION – SEVILLE

14:30
PLENARY ROUND TABLE 1: MICROSATellite PROPULsion – INNOVATION AND PERSPECTIVES

16:00
COFFEE BREAK

SESSION 25 - ST - Engine developments (1)
Session 26 - ST - P120C Motor (2)
Session 27 - ST - Air-breathing developments (1)
Session 28 - SC-EP - GIT (2)
Session 29 - SC-CP - Components: Propulsion - SABRE (2)
Session 30 - SC-EP - System Analysis (2)
Session 31 - SC-EP - Modelling (2)
Session 32 - SC - Microsatellite Platforms

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Chairpersons
H. Gray, Airbus DS, UK
S. Henry, ArianeGroup, FR
M. Biagioni, AVIO, IT
A. Fuezer, ArianeGroup, DE
M. Walender, ONK, SE
M. Coletti, Thales UK
M. Coletti, Thales UK
M. Gotitz, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
S. Gregucci, ENPULSION, AT
A. Reiner, ENPULSION, AT
M. Ivanov, Central Institute of Aviation

16:20
VULCAN 2.1, the European reference for Ariane 6 lower stage cryogenic propulsive system
L. Daron, ArianeGroup, FR

16:40
Development of advanced oxygen-kerosene rocket engines on basis of RD170/RD171 engines for LV of medium and heavy classes.
V. Sudakov, NPO Energomash, RU

17:00
Innovative Solid Propulsion Technologies for Space Applications
P. Cauzel, ArianeGroup, FR

19:30
Microsatellite Platforms
J. Barth, Reaction Engines, GB

SESSION 30 - SC-EP - System Analysis (2)
Session 31 - SC-EP - Modelling (2)
Session 32 - SC - Microsatellite Platforms

SESSION 33 - SC - Microsatellite Propulsion (4)

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Chairpersons
H. Gray, Airbus DS, UK
S. Henry, ArianeGroup, FR
M. Biagioni, AVIO, IT
A. Fuezer, ArianeGroup, DE
M. Walender, ONK, SE
M. Coletti, Thales UK
M. Coletti, Thales UK
M. Gotitz, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
H. Leiter, ArianeGroup, DE
S. Gregucci, ENPULSION, AT
A. Reiner, ENPULSION, AT
M. Ivanov, Central Institute of Aviation

17:20
Development Progress of LE-9 Engine for H3 Launch Vehicle
J. Kawashima, Japan Aerospace Exploration Agency (JAXA), JP

17:40
Progress of Engineering Model Hot-Firing Tests in LE-9 Engine Development
T. Kai, Mitsubishi Heavy Industries (MHI), JP

18:00
Qualification Test Results of the 2nd Stage Engine for Ariane 6 Vehicle
S. Uka, Japan Aerospace Exploration Agency (JAXA), JP

18:20
END OF DAY 2
<table>
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<tr>
<td>12:30</td>
<td>Overview of SC Propulsion Subsystem Testing</td>
<td>P. Ferrand, Airbus Defence &amp; Space, GB</td>
<td>Fluidic injection active control of transition in a dual-bell launcher nozzle</td>
<td>Simulation of a single-element rocket combustor using a non-adiabatic Flammel model</td>
<td>The catalytic decomposition kinetics of aqueous ammonium dinitrinate (ADN) over an Ir/Al2O3 catalyst</td>
<td>An Axysymmetric MHD Model for the Plasma Transport in a Helicon Plasma Thruster</td>
<td>Development Status of SSTL’s 20 kW-Class Hall Thruster</td>
<td>Development Status of SITAEL’s 20 kW-Class Hall Thruster</td>
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<td>13:10</td>
<td>LUNCH</td>
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<td>14:30</td>
<td>PLENARY SESSION – SEVILLA</td>
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<td>16:00</td>
<td>COFFEE BREAK</td>
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| 16:20 | ESA Electric Propulsion Activities  
J. Gonzalez Del Amo, European Space Propulsion subsystems engineering for Electric and Chemical propulsion - synergy opportunities  
A. Demartini, CNES Sweden, SE | ESA-ETS Future Launchers Preparatory Programme  
J. Liénart, CNES, FR  
M. Volat, Dassault, FR  
T. Kocher, ESA | CFD design method for capacitive PDG suppressor devices  
B. Clingal, ArianeGroup, FR | Overview of Rocket Testing at the Westcott Test Facility  
E. Moore, Astrium Engineering, GB | Experimental Investigation of 300N Liquid Oxygen-Liquid Methane Engine for Orbit Maneuver  
C. Cheng, Shanghai Institute of Space Propulsion, CN | Collapsing Effects in Non-stationary Plasma Expansions along Convergent-divergent Magnetic Nozzles  
J. Zhou, Carlos III University of Madrid (UC3M), ES | Performance Characteristics of High Power and High Specific-Impulse Japan Hall Thrusters for In-Space Propulsion  
K. Fujimori, Osaka Institute of Technology (OIT), JP | Designing Human Robotic Collaboration for the Space Factories of the Future - Application to Propellant Tank Cleaning Operation through a Participatory Approach  
T. Mouvet-Selan, ArianeGroup, FR |
| 16:40 | Electric Propulsion Research and Development at NASA  
M. Nagah, Japan Aerospace Exploration Agency (JAXA), JP | Study on increase of ignition probability by using laser induced  
with 1Hz order burst pulse in LOX/Methane thruster  
Y. Matsumura, IR Space, JP | Development and ground testing of a 210 N vacuum thrust class thruster  
using a novel nitrous oxide/propene propellant combination  
J. Wink, Dawn Aerospace, NL | Ion acceleration in the magnetic nozzle of an ECR thruster:  
Comparison of experimental measurements with a quasi 1D kinetic model  
S. Correyero, Carlos III University of Madrid (UC3M), ES | Experimental Characterization of a 5 kW Magnetically-Shielded Hall Thruster  
A. Piragino, SITAEL, IT | Weld Qualification of EB circular welds for the new VEGA LPS venting valve  
N. Farnandes, Omniside-RTG, DE |
| 17:00 | Propulsion subsystems engineering for Electric and Chemical propulsion - synergy opportunities  
A. Demartini, CNES Sweden, SE | ETID NE status report - Demonstrator for future upper stage expander engines  
K. Lindblad, GKN Aerospace Engine Systems, SE | Numerical investigation of the influence of leakage flow on the performance of the impeller for a LOx turbopump  
L. Vegga, TU Munich, DE | Optical Spectroscopy on Laser-Induced Ignition Sparks and other Space-Related Plasmas  
R. Slodzian, German Aerospace Center (DLR), DE | Closed-loop throttle control of a 250kPa-thruster  
I. Wouhe, Astrium Engineering, GB | Advances in Wave-Plasma Modelling in ECR Thrusters  
A. Sanchez-Villar, Carlos III University of Madrid (UC3M), ES | Plasma Thruster development with the new design scheme hollow magnet anode  
M. Bernirot, EDB Falck, RU | Material and component characterisation under cryogenic conditions with hydrogen and methane  
A. Schachtien, ET Energetechnologie, DE |
| 17:20 | The results of electric propulsion development in the Keldysh Research Center  
A. Lohfene, Keldysh Research Center, RUS | Test results of full electrically actuated engine valves  
F. Dengra Moya, ArianeGroup, DE | Acoustic Emission Prediction of Supersonic Cold Flow Jets Using a CFD-CAA Hybrid Method  
E. Costa Ruiz, German Aerospace Center (DLR), DE | Deflagration-to-Detonation Transition in Pre-mixed Nitrous Oxide-Oxygen and Nitrogen-Termonfuel-Mixture for Pulsed Detonative Propulsion Systems  
P. Bangalore Venkatesh, Purdue University, US | Experimental Campaign on a Green Bipropellant Reaction Control Thruster  
D. Valerdi, STAEL, IT | Development and Characterization of a Pulsed Plasma Thruster  
P. Lungu, TU Munich, DE | Experimental Investigation of a Direct Drive Hall Thruster  
P. Fang, STAEL, IT | Investigation of Welding Distortion and Residual Stresses in Space Propellant Tanks  
D. Cathrell, Artistic Defence & Space, GB |
| 17:40 | Overview of the activities in the fields of propulsion and pyrotechnics at the CNES Toulouse Space Center  
T. Lianet, CNES, FR | Electric Valves for Upper Stage Propulsion  
A. Mercadante, Safen Aero Boosters, BE | Operational Behaviour Investigation of Hartmann-Sprenger Tube based Resonance Ignition systems for Oxygen/Methane-In-Orbit Propulsion applications  
P. Lunga, TU Munich, DE | Advances in the development of a 3D magnetic nozzle for thrust steering  
J. Navarro Canale, Carlos III University of Madrid (UC3M), ES | Experimental Investigation of Low-Erosion Hall Thruster Configurations  
M. Sarac, University of Pisa, IT | Hydrazine and MOPs as candidate materials for hydrogen storage in telecommunication satellites  
C. M. Cappella, University of Bari Aldo Moro, IT |
| 18:00 | Developed and prospective stationary plasma thrusters by EDB Falck  
O. Mitrofanova, EDB Falck, RU |  |  |  |  |  |  |  |

**Wednesday 16th May 2018**

**Room**

- **TIRANA 1**
- **ESPAÑA 1**
- **ESPAÑA 2**
- **ESPAÑA 3**
- **ESPAÑA 4**
- **ESPAÑA 5**

**Gala Dinner**
Thursday 17th May 2018

PLENARY SESSION – SEVILLA

08:30

KEYNOTE SPEECH 4: SPACE EXPLORATION AND PROPULSION CHALLENGES (provisional title)
David PARKER, Director of Human Spaceflight and Robotic Exploration, ESA

Thursday 17th May 2018

PLENARY SESSION – SEVILLA

08:30

KEYNOTE SPEECH 4: SPACE EXPLORATION AND PROPULSION CHALLENGES (provisional title)
David PARKER, Director of Human Spaceflight and Robotic Exploration, ESA

Session 57 - SC - Overview (3)

09:00

An Overview of the Emirates Mars Mission’s Monopropellant Hydrazine Propulsion System
S. Ayesha, Mohammed Bin Rashid Space Centre (MBRSC), AE

09:10

The arc heaters for tests of rocket propulsion systems parts
A. Kozaev, Keldysh Research Center, RU

09:20

The Role of sub-scale tests for rocket engine technology development and verification
J. Sander, German Aerospace Center (DLR), DE

09:30

An overview of Electric Propulsion Research Activities at Kurchatov Institute: history and state of the art
V. Kulygin, Kurchatov Institute, RU

09:40

Electric Propulsion Activities at Italian Aerospace Institute of Space Systems (IRS), DE
G. Herdrich, University of Stuttgart

09:50

Electric Propulsion Activities at Italian Aerospace Institute of Space Systems (IRS), DE
G. Ordonneau, ONERA, FR

10:00

Venus - mission enhancement using electric propulsion
S. Adler, Rafael, IL

10:10

Flow Visualization and Surface Measurements of Shallow Water Experiments exemplary for Aeropilots Nozzles with Secondary Injection
M. Propel, TU Dresden, DE

10:20

Flow Visualization and Surface Measurements of Shallow Water Experiments exemplary for Aeropilots Nozzles with Secondary Injection
M. Propel, TU Dresden, DE

10:30

Research and Development on Electric and Advanced Propulsion at SITAEL, an Overview
T. Mauet, SITAEL, IT

10:40

Activities on Electric Propulsion at Italian Aerospace Research Centre - Main Achievements and Outlook
D. Ricci, Italian Aerospace Research Centre (CIRA), IT

10:50

Activities on Electric Space Propulsion at Italian Aerospace Research Centre - Main Achievements and Outlook
D. Ricci, Italian Aerospace Research Centre (CIRA), IT

11:10

COFFEE BREAK
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>11:30</td>
<td>Hybrid Propulsion for a Moon Sample Return Mission</td>
<td>C. Paravan, Delcat S.p.A, IT</td>
<td>Politecnico di Milano, IT</td>
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<tr>
<td>11:30</td>
<td>Development of a Compact Hybrid Rocket Engine for Low-Cost In-Space</td>
<td>C. Paravan, Politecnico di Milano, IT</td>
<td>EURATOM, IT</td>
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<tr>
<td>11:30</td>
<td>HYPROGEO Hybrid propulsion: Latest project achievements</td>
<td>A. Lecossais, Airbus Defence &amp; Space, FR</td>
<td>Airbus Defence &amp; Space, FR</td>
</tr>
<tr>
<td>12:10</td>
<td>Experimental Demonstration of an Innovative Hybrid Rocket Engine</td>
<td>A. Musker, DELTACAT, GB</td>
<td>DLR, DE</td>
</tr>
<tr>
<td>12:10</td>
<td>Catalytic Injectors for an Isoclinic Hybrid Rocket Motor</td>
<td>A. Musker, DELTACAT, GB</td>
<td>DLR, DE</td>
</tr>
<tr>
<td>12:30</td>
<td>Cryogenic propellant storage for high power plasma space propulsion</td>
<td>E. Fonda-Marsland, Southampton, GB</td>
<td>University of Southampton, GB</td>
</tr>
<tr>
<td>12:30</td>
<td>Data Driven Model for Electron Transport in a Hall Effect Thruster</td>
<td>R. Schmit, MDI, GB</td>
<td>Institute of Engineering and Technology, Munich, DE</td>
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<td>13:10</td>
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PLENARY SESSION – SEVILLA

PLENARY ROUND TABLE 3: DEMISABILITY AND SPACE DEBRIS MITIGATION: A PROPULSION PERSPECTIVE (provisional title)

Thursday 17th May 2018

COFFEE BREAK

16:00

PLENARY SESSION – SEVILLA

PLENARY ROUND TABLE 3: DEMISABILITY AND SPACE DEBRIS MITIGATION: A PROPULSION PERSPECTIVE (provisional title)

Thursday 17th May 2018

COFFEE BREAK

16:00

PLENARY SESSION – SEVILLA

PLENARY ROUND TABLE 3: DEMISABILITY AND SPACE DEBRIS MITIGATION: A PROPULSION PERSPECTIVE (provisional title)

Thursday 17th May 2018

COFFEE BREAK

16:00
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Room</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:00</td>
<td>81</td>
<td>TRIANA 1</td>
<td>Experimental demonstration of the propulsive performances of a hybrid engine operating with highly concentrated hydrogen peroxide</td>
<td>J. Anthonisz, CNNER, FR</td>
</tr>
<tr>
<td>10:10</td>
<td>82</td>
<td>TRIANA 1</td>
<td>Validation of Shock-Modeling Approach Using STAR-CCM+</td>
<td>D. Benson, NASA Glenn, US</td>
</tr>
<tr>
<td>10:20</td>
<td>83</td>
<td>TRIANA 1</td>
<td>Alternative Propellants for Gridded Ion Engines</td>
<td>F. Pagoulni, University of Pisa, IT</td>
</tr>
<tr>
<td>10:30</td>
<td>84</td>
<td>TRIANA 1</td>
<td>Solar Sail Propulsion for Interplanetary Small Spacecraft</td>
<td>G. Schmidt, NASA Glenn, US</td>
</tr>
<tr>
<td>10:40</td>
<td>85</td>
<td>TRIANA 1</td>
<td>Detailed Work Function Measurements and Development of a Hollow Cathode using the Emittor Material C12AT Electride</td>
<td>M. Gollor, ESA</td>
</tr>
<tr>
<td>11:00</td>
<td>86</td>
<td>TRIANA 1</td>
<td>HEMPT Based Electric Propulsion Systems - Supporting upcoming applications from LEO to GEO Systems</td>
<td>E. Bosch, Thales Deutschland, DE</td>
</tr>
<tr>
<td>11:20</td>
<td>87</td>
<td>TRIANA 1</td>
<td>Development of a Water Propulsion System for Satellite Applications</td>
<td>L. Grimaud, CNRS - ICARE, FR</td>
</tr>
<tr>
<td>11:30</td>
<td>88</td>
<td>TRIANA 1</td>
<td>Neutralizer development for the RIT2 family of engines</td>
<td>A. Krausa, ArianeGroup, DE</td>
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<tr>
<td>11:40</td>
<td>89</td>
<td>TRIANA 1</td>
<td>Performance of the 9N-HEMPT with iodine and xenon</td>
<td>M. Vasseul, Airbus Defence &amp; Space, SE</td>
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**COFFEE BREAK**

Friday 18th May 2018
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Friday 18th May 2018

**Room Giraldilla Triana 1**
- M. Gollor, ESA
- T. Kimura, JAXA, JP
- A. Herberto, ESA

**Room España 2**
- G. Ordóñez, ONERA, FR
- Y. Dalton, JAXA, JP

**Room España 3**
- S. Gabriel, Mars Space, UK

**Room España 4**
- D. Felt, ESA

**Room España 5**
- J. Schein, Universidade der Bundeswehr, DE

**Session 92 - SC-EP - Alternative Propellants (2)**
- K. W. Naumann, Bayern-Chemie, DE

**Session 93 - SC - Alternative Propulsion Concepts**
- F. Pinto, Airbus Defence & Space, ES
- Institute of Space Systems (IRS), DE
- Institute of Space Systems (IRS), DE

**Session 94 - SC-EP - Components and Neutraliser (3)**
- Y.-A. Chan, University of Stuttgart
- J. Skalden, University of Stuttgart

**Session 95 - SC-EP - Combustion**
- Standardization Approach on Langmuir Probe Measurements with Thermal Anjet VELARC J. Seiden, University of Stuttgart, Institute of Space Systems (IRD), DE
- Feasibility Study on Electric Pumpped Cycle Rocket Engines T. Kimura, Japan Aerospace Exploration Agency (JAXA), JP

**Session 96 - SC-EP - MinHET (2)**
- Characterization of a Micro-electrolysis Thruster Using a Porous Glass Emitter Array C. Chengyu Ma, University of Southampton, GB

**LUNCH**

**TECHNICAL VISIT (TBD)**

**END OF SPACE PROPULSION CONFERENCE**