

Sunday May 1st, 2016

REGISTRATION

WELCOME COCKTAIL

Monday May 2nd, 2016

REGISTRATION

PLENARY SESSIONS

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST												
Tuesday May 3rd, 2016															
08:30	KEYNOTE SPEECH - DORDAIN														
	Session 1 - EP In Space (1)	Session 2 - EP New Concepts (1)	Session 3 - SC - Propellant Management (1)	Session 4 - ST - Air Breathing Propulsion - SABRE	Session 5 - ST - LOX / CH4 Propulsion (1)	Session 6 - ST - Propulsion Components: Combustion Chambers	Session 7 - Overview of Current Programs (1)	Session 8 - ST - Hybrid Propulsion (1)							
ROOM															
Chairpersons															
09:00	3125056 Progress toward Flight Readiness of a 40-kW-class Solar Electric Propulsion System D. Manzella, NASA Glenn Research Center, US	3125278 Investigation of capillary type liquid metal ion emitters C. Scharlemann, University of Applied Sciences Wiener Neustadt, AT	3124721 Thermal Propellant Gauging in OHB I. Fischer, OHB System, DE	AP5 The SABRE engine – A new approach to technology development for space access D. Perigo, ESA, NL	3125115 LOX/GCH4 Heat Sink Combustion Chamber: Testing and Assessment of Experimental Data F. Battista, Italian Aerospace Research Centre, IT	3124835 Model Assessment for Gaseous Film Cooling in a Subscale Single Element GCH4-GOX Combustion Chamber M.P. Celano, Technische Universität München (TUM), DE	3125105 ASI-JAXA cooperation in the field of LOX-Methane propulsion for Space applications E. d'Aversa, ASI Italian Space Agency, IT	3124641 Demonstration of 30kN-thrust hybrid rocket propulsion at Nammo Raufoss within ESA FLPP A. Boiron, Nammo Raufoss AS, NO							
09:20	3124687 Plasma Propulsion TAS in-flight Experience A. Naulin, Thales Alenia Space, FR	3124967 Studying the plume neutralization process of the PEGASES thruster F. Cichocki, Universidad "Carlos III" de Madrid, ES	3124615 The Evolutionary Forces and the Design and Development of Propellant Management Devices for Space Flight in Europe and the United States W. Tam, Orbital ATK, US	3125048 Testing Air-Breathing Rocket Engines J. Macfarlane, Airborne Engineering Limited, UK	3125050 O2/CH4 Thruster Demonstrator design and testing for RCS/RACS thruster application A. Schoeller, Avio, IT	3124668 Synthesis of a niobium thrust chamber coated with MoSi2 coating X. Zhang, Aerospace Research Institute of Material and Processing Technology, CN	3125132 JAXA's Current Activities for the Research of a LOX/LCH4 (LNG) Engine I. Masuda, JAXA, JP	3124934 Optical Analysis of Hybrid Rocket Combustion with Decomposition Methods A. Petrarolo, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), DE							
09:40	3124673 Ensuring Safe and Reliable Operations of the Electric Propulsion System for the BepiColombo Mission – An Overview of Planned Nominal and Contingency Commissioning Activities H. Gray, Airbus Defence and Space, UK	3125141 Smallsat Propulsion Module P. Smith, Moog Cheltenham, UK	3125270 Migration of Center of Gravity on a 40 Inch Diameter Tank with Stiffening Rings D. Kirk, Florida Institute of Technology, US	3125224 Pre-Cooler Design and Development for the SABRE Engine R. Bond, Reaction Engines Ltd, UK	3124644 Cryogenic Rocket Engine Developments at Delft Aerospace Rocket Engineering J. Wink, Delft University of Technology, NL	3124877 Application of laser-ignition systems in liquid rocket engines S. Soller, Airbus Safran Launchers, DE	3124609 Activities on Electric Propulsion at ESA J.A. Gonzalez del Amo, ESA, NL	3125289 Mission Definition and System Requirements for Highly-Functional Hybrid Rocket Demonstration T. Shimada, Japan Aerospace Exploration Agency, JP							
10:00	3125308 Electric propulsion as an enabling technology for a very low Earth orbit mission L. Ansalone, ASI - Agenzia Spaziale Italiana, IT	3125189 Modelling of Ion Current, Cathode Heating and Thrust in Inertial Electrostatic Confinement Devices D. Petkow, Gradel sárl, LU	3124905 Achieving High Precision Centre of Mass and Sloshing Control in Spacecraft with PMD Propellant Tanks R. Bellarosa, Airbus Defence and Space, UK	3125227 Development and Test Programme for the SABRE Engine P. Davies, Reaction Engines Ltd, UK	3125059 Advancements in the HYPROB-BREAD project: design and testing of a LOX/LCH4 demonstrator F. Battista, Italian Aerospace Research Centre, IT	3124645 Laser ignition of LOX-kerosene propellant in liquid rocket engine of "Soyuz" LV V. Sudakov, NPO Energomash, RU	3124887 Overview of CNES spacecraft propulsion activities N. Arcis, CNES, FR	3124672 Development and performance of the 10 kN hybrid Rocket Motor for the Stratos II Sounding Rocket R. Werner, TU Delft, NL							
10:20	3124832 Comparison of Future Mission Needs with Available Electric Propulsion Technologies B. Wollenhaupt, OHB System, DE	3124954 Cubesat testing of Coulomb drag propulsion P. Janhunen, Finnish Meteorological Institute, FI	3125271 Characterization of Elastomeric Diaphragm Motion in a 12.88 inch Diameter Tank under 1-DOF Sinusoidal Excitation D. Kirk, Florida Institute of Technology, US	3125223 The SABRE Engine Concept R. Bond, Reaction Engines Ltd, UK	3124622 LOX/Methane Thrust Chamber Demonstrator Testing R. Blasi, Airbus-Safran-Launchers, FR	3124927 Methane/oxygen laser ignition in an experimental rocket combustion chamber: Impact of mixing and ignition position M. Wohlhüter, DLR Lampoldshausen, DE	3125329 Green Propulsion activities: Update of current status and activities from ESA A. Gernoth, ESA, NL	3125055 Hybrid Motor Demonstrator activities for lander module system A. Schoeller, Avio, IT							
10:40	3125242 The integration of electric propulsion thrusters on very low earth orbit microsattellites J. Walsh, University of Bristol, UK	3124869 NOMADS: Development of a versatile Plasma Discharge Simulation platform for Electric Propulsion D. Perez-Grande, Universidad Carlos III de Madrid, ES	3125274 Characterization of Elastomeric Diaphragm Motion within a Spacecraft Propellant Tank D. Kirk, Florida Institute of Technology, US	3125226 Aerospace Compressor & Turbine Technologies for Reusable Space Vehicle Powerplants P. Davies, Reaction Engines Ltd, UK	3124947 LOX/Methane reusable rocket propulsion at reach with large scale demonstrators tested S. Magniant, Airbus Defence & Space, FR	3124764 Numerical Investigation of Creep Fatigue Damage Mechanisms in Rocket Combustion Chambers A. Hiroaki, Japan Aerospace Exploration Agency, JP	3125344 Overview of Chemical Propulsion Activities at ESA M. ford, ESA, NL	3124608 Re-ignition and Performance Study of N2O/HTPB Hybrid Rocket Motors L.Y. Huang, National University of Defense Technology, CN							
11:00	COFFEE BREAK														

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Tuesday May 3rd, 2016				
	Session 9 - EP in Space (2)	Session 10 - SC HET (1)	Session 11 - SC - Electrothermal (1)	Session 12- SC - Propellant Management (2)	Session 13 - Modelling Chemical Propulsion (1)	Session 14 - Microgravity Propellant Modelling & Test (1)	Session 15 - ST - SRM (1)	Session 16 - AM/3D Printing (1)
ROOM								
Chairpersons								
11:30	3124713 Performance evaluation of using the iESP module installed on the spacecraft moving in an irregular gravitational field of the asteroid A. Shornikov, Samara State Aerospace University, RU	3124688 Plasma thruster of a middle power PlaS-55: development and experimental research first results M. Potapenko, EDB Fakel, RU	3125075 A Dual-Mode Propulsion System with Arcjets as an Alternative Propulsion System for the SGEO Platform F. Gamgami, OHB System AG, DE	3124699 Electronically Controlled, Piezo-Actuated, 10,000 psi Regulator J. Ponzio, Marotta Controls, US	3124872 Diffuse interface modelling for the Large Eddy Simulation of the primary atomization in cryogenic rocket engines A. Murrone, ONERA - The French Aerospace Lab, FR	3124909 Boiling Flow of Liquid Nitrogen in Complicated Channels under Low-gravity Condition T. Himeno, University of Tokyo, JP	3125118 Advanced Biological Treatment for Solid Propulsion - LICORNE G. Dupouy, Herakles - Groupe Safran, FR	3124940 Turbine design for Ariane 6 Vulcain turbopumps upgrades S. Brodin, GKN Aerospace, SE
11:50	3125243 Propulsion Requirements for Station Keeping of Small LEO Satellites M. Leomanni, Università di Siena, IT	3124789 Experimental and numerical investigations of rotating plasma structures in Hall thrusters S. Mazouffre, CNRS - ICARE, FR	3124939 Xenon-feed arcjet design investigation and experimental characterization G. Cifali, Sitael S.p.A., IT	3125337 Passivation Valve for Satellites Propulsion System M. zaberchik, Rafael, IL	3125015 Numerical Rebuilding of an Experimental Test Campaign on a Supercritical Methane Cooling Channel M. Pizzarelli, University of Rome "La Sapienza", IT	3125323 Cryofenix (Cryogenic sounding rocket experiment) results S. Bianchi, Air Liquide Advanced Technologies, FR	3125146 Crack evolution in a frontal thermal protection: numerical analyses and experimental validation F. Paglia, Avio, IT	3125180 Design and evaluation test results of 3D printed cold gas thruster nozzle for small re-entry capsule G. Fujii, JAXA, JP
12:10	3124709 BepiColombo SEPS Coupling Test Performance Results S. Clark, QinetiQ, UK	3124904 Hall Thruster R&D Activities at Osaka Institute of Technology Y. Takahata, Osaka Institute of Technology, JP	3125277 Preliminary Assessment of an AF-M315E Arcjet G. Williams, Ohio Aerospace Institute, US	3124847 Development of new Pyrotechnical Squib with Extended Lifetime for Pyrovalve application in the frame of ESA JUICE program O./, Teillet / Wolf, Pyroalliance / Airbus DS GmbH, DE	3125022 Enhanced Cryogenic CFD Modelling Using Fibre-Optic Temperature Field Sensors M. Siegl, DLR, DE	3124953 Simulation of the Ariane 5/ECA cryogenic upper-stage chill-down under microgravity conditions for the Demo-Flight missions using the thermal-hydraulic code COMETE D. Duri, Snecma - Groupe Safran, FR	3125364 Characterisation of AP/Fox7/GAP Composite Solid Rocket Propellant Formulations with Reduced HCl exhaust gas H. Lips, Qtec, DE	3125209 Additive Manufacturing Capabilities for Space Propulsion Hardware M. Smith, ESA, NL
12:30	3124765 The Simulation of the Interplanetary Transfer of the Research Spacecraft with Low Thrust Propulsion to the Potentially Hazardous Asteroid R. Khabibullin, Samara State Aerospace University, RU	3124798 Investigation of SPT-140 thruster mechanical strength O. Boychenko, EDB Fakel, RU	3124935 AISAT-1B Butane Propulsion System Performance D. Darfilal, Satellite Development Center (CDS), DZ	3124910 Shock Vector Control for Reaction Control System Thrusters C. Bright, UNSW Canberra, AU	3125150 Towards a reliable LES-CMC coupling strategy for compressible CFD simulations of LRE thrust chambers P.P. Ciottoli, Sapienza University, IT	3124908 Numerical Prediction of Liquid Nitrogen Line Chill-down Processes by Direct Interface Tracking Approach Y. Umemura, JAXA, JP	3124976 Bistability behavior in solid rocket motor W. Ao, Northwestern Polytechnical University, CN	3124941 3D-Printing of High Temperature Materials for Next Generation Thrusters and Apogee Engines L. Wermuth, Airbus DS GmbH, DE
12:50	LUNCH							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST					
Tuesday May 3rd, 2016								
14:20	ROUND TABLE PROPULSION FOR NANOSATELLITES (TBC)							
15:50	COFFEE BREAK							
	Session 17 - SC - HET (2)	Session 18 - SC - Electrothermal (2)	Session 19 - SC - GIEs (1)	Session 20 - SC - Green Propulsion for Spacecraft (1)	Session 21 - Pressure-Thrust Oscillation Issues (1)	Session 22 - ST - Propulsion Components: Injectors	Session 23 - Overview of Current Programs (2)	Session 24 - ST - Hybrid Propulsion (2)
Chairperson								
16:00	3125330 Design transfer, development and testing of XR-5E Hall Effect Thruster M. Leslie, European Space Propulsion, UK	3124882 Choice of design parameters of the electrical rocket power propulsion system for delivery of large-size constructions into a geostationary orbit. I. Tkachenko, Samara, RU	3124863 T6 Kaufman Ion Engine Development R. Lewis, QinetiQ, UK	3125006 Safety Evaluation Tests of HAN-based monopropellant K. Hatai, JAXA, JP	3125096 Demonstration of Pressure Oscillation Reduction For a New Large Monolithic Motor S. Larrieu, Herakles Safran Group, FR	3124701 Flow Interaction by Multi Doublet Injectors C. Inoue, The University of Tokyo, JP	3125098 ORION European Service Module Propulsion Subsystem E. Rosenko, Airbus DS GmbH, DE	3125046 3D MILES simulation of a hybrid rocket with swirl injection J. Messineo, ONERA, FR
16:20	3125331 Testing of XR-5 Hall Effect Thruster and MK3 power processing unit M. Leslie, European Space Propulsion, UK	3124903 Research and Development of Low-Power Arcjet Thrusters with Green Propellants of HAN and Water Y. Fukutome, Osaka Institute of Technology, JP	3125251 AIRBUS DS GmbH Radio Frequency Ion Thrusters and Systems for Scientific and Commercial Applications H. Leiter, Airbus DS, DE	3125343 Space qualification of monopropellant LMP-103S P. Thormählen, ECAPS, SE	3125130 Modelling Chug Instabilities by Variable Time Lag Approach M. Leonardi, La Sapienza, IT	3125186 Characteristics of Liquid Flow according to Momentum Flux Ratio with Gas Excitation on Gas-Centered Swirl Coaxial Injectors G. Park, Seoul National University, KR	3124696 FLPP ETID: Cryogenic Expander Technologies to Increase the Competitiveness of European Launchers T. Fuhrmann, Airbus Safran Launchers GmbH, DE	3125176 Simulations of GOX/HTPB Hybrid Rocket Flowfields Including Modeling of Fuel Pyrolysis and Thermal Radiation G. Leccese, Sapienza University of Rome, IT
16:40	3125196 Development of a 20 kW-Class Hall Effect Thruster A. Leporini, SITAEL S.p.A, IT	3125284 Research on Electric Propulsion at ONERA D. Packan, ONERA, FR	3124875 Current Status of NASA Evolutionary Xenon Thruster - Commercial (NEXT-C) M. Dolloff, NASA - Glenn Research Center, US	3125363 Qualification of LMP-103S – an ADN-based satellite propellant S. Ek, FOI, SE	3125204 A specific aspect of aluminium combustion on SRM instabilities O. Orlandi, Herakles Safran Group, FR	3124836 Experimental and Numerical Investigation on Recess Variation of a Shear Coax Injector in a GOX-GCH4 Combustion Chamber S. Silvestri, Technische Universität München, DE	3125304 Architecture of a new Vega 3rd stage M. Genito, ELV, IT	3125213 Hybrid rocket technology demonstrator: status of design and development activities M. di Clemente, Italian aerospace research centre, IT
17:00	3124638 MEPS Engineering Model Development and Test T. Misuri, SITAEL, IT	3124946 Development of a Very High Temperature Xenon Resistojet A. Grubisic, University of Southampton, UK	3125294 Annular Engine Concept and Development Status M. Patterson, NASA Glenn Research Center, US	3124920 High Performance Green Propulsion - On the Way for Three Launches from Three Continents K. Anflo, ECAPS, SE	3124974 Global Stability Analysis of the Oscillatory Taylor-Culick Flow Using the Multiple Time Scale Method P.J. Liu, Northwestern Polytechnical University, CN	3124898 Experimental and theoretical analysis on compressible axisymmetric jet response to excitation H. Gu, Institute of Mechanics, C A S, CN	3124871 NASA's Development of the European Service Module Propulsion Subsystem for the Multi-Purpose Crew Vehicle through International Partnership with ESA K. Dickens, NASA, US	3125219 Numerical Simulations of Flowfield and Combustion in Hybrid Rockets D. Bianchi, University of Rome "La Sapienza", IT
17:20	3124625 Magnetically Shielded Low Power Hall Effect Thruster T. Misuri, SITAEL, IT	3124734 Heater Chip with Different Microchannels Geometries for a Low Pressure Free Molecular Micro-Resistojet D. Cordeiro Guerrieri, TU DELFT, NL	3125102 RIT-µX system for future space missions: Coupled and endurance test C. Altmann, Airbus DS GmbH, DE	3124942 HPGP® a Flight Proven Technology Selected for Multiple LEO Missions M. Persson, ECAPS, SE	3125019 Combustion Instability and Pressure Oscillation Numerical Simulation in Solid Rocket Motor M. Panelli, CIRA S.c.p.a, IT	3124815 Optical Investigation of the LOX-Jet disintegration processes at high pressure conditions in a LOX/H2 single coaxial injector combustion chamber D. Suslov, Institute of Space Propulsion, DLR, DE	3125029 VINCI®, the European reference for Ariane 6 upper stage cryogenic engine J.M. Sannino, Airbus Safran Launchers, FR	3125228 Hybrid Propulsion: Potential Applications & Technical Challenges K. Odic, Airbus Defence & Space, FR
17:40	3124751 Development of a Compact Hall Thruster with a C12A7 Low Power Cathode M. Tajmar, TU Dresden, DE	3124928 A 17.8-GHz Microwave Electrothermal Thruster for CubeSats and Small Spacecraft M. Micci, Penn State University, US	3125250 Testing Activities of a Radio Frequency Mini Ion Engine for the Next Generation Gravity Missions "NGGM" A. Mingo, Transmit GmbH, DE	3124643 Development of a 400 N HDPE/HTP hybrid rocket motor G. Roberts, University of Southampton, UK	3125166 Lateral blowing impact on corner vortex shedding in solid rocket motors L. Lacassagne, Cerfacs, FR	3125081 An Experimental and Numerical of a Vortex Injection Liquid Rocket Engine J.J. Marlow, Kingston University, UK	AP1 SLS Vehicle Development Overview J. Honeycutt and G. Lyles, NASA, US	3124985 Control of Low Frequency Combustion Instability in Hybrid Rocket Engine C. Lee, Konkuk University, KR
END OF CONFERENCE DAY								

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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Wednesday May 4th, 2016

08:30 KEYNOTE SPEECH - ARIANE 6 PROGRAMME STATUS

	Session 25 - SC - HET (3)	Session 26 - SC - GIEs (2)	Session 27 - Magnetic Confinement Thrusters	Session 28 - SC - Chemical Thrusters: Monoprop & Biprop (1)	Session 29 - Modelling Chemical Propulsion (2)	Session 30 - ST - Sloshing Experiments (1)	Session 31 - ST - Green&New Propellants (1)	Session 32 - AM/3D Printing (2)
ROOM								
Chairpersons								
09:00	3124890 Design and characterization of a 200W low power Hall thruster in "magnetic shielding" and "wall less" configurations L. Grimaud, ICARE - CNRS, FR	3125286 Development of a 5kW class radio-frequency ion thruster system with extended performance envelop for full EP applications J.P. Porst, Airbus DS GmbH, DE	3124901 Research and Development of Electrothermal Pulsed Plasma Thruster Systems for Small/Nano Satellites at Osaka Institute of Technology H. Tahara, Osaka Institute of Technology, JP	3124738 Prediction of 10N Thruster Exhaust Plume Involving Global MMH/NTO Combustion Model K.H. Lee, Sejong University, KR	3125159 Large Eddy Simulations of high amplitude self-sustained acoustic oscillations in a rocket engine coaxial injector in the transcritical regime T. Schmitt, EM2C Laboratory, CNRS, CentraleSupélec, Paris-Saclay University, FR	3124938 Experimental investigation of Liquid Nitrogen sloshing for space applications M.R. Vetrano, von Karman Institute, BE	3124831 Green, Highly Throttleable Gelled Propellant Rocket Motors – State and Application Potentials K.W. Naumann, Bayern-Chemie GmbH, DE	3125026 GKNs Additive Manufacturing abilities U. Palmnas, GKN, SE
09:20	3124911 A method to suppress the boundary of mode transition in Hall Thrusters H. Ilang, Harbin Institute of Technology, CN	3125045 Double-sided ion thruster for contactless space debris removal D. Mantas, University of Southampton, UK	3125017 Updated Qualification and Delivery Status of the HEMPT based Ion Propulsion System for SmallGEO D.S. Weis, Thales Electronic Systems GmbH, DE	3125184 Research and development status of 10N MMH/MON-3 bi-propellant ceramic thruster G. Fujii, JAXA, JP	3125374 Large eddy simulation of the combustion and heat transfer of a model rocket engine L. Potier, Cerfacs, FR	3125039 Experimental and numerical investigation of axial and lateral sloshing inside a large cylindrical tank M. Stief, DLR e.v., DE	3124841 Influence of the Combustion Chamber Geometry on the Performance of a Gel Propulsion System P. Kröger, German Aerospace Center (DLR), DE	3125246 Use of Additive Manufacturing to Develop Advanced Hybrid Rocket Designs J. Catina, United States Naval Academy, US
09:40	3124944 Erosion Reduction Measures in Anode Layer Type Hall Thruster T. Schönherr, The University of Tokyo, JP	3125352 Study of plasma parameters in gas discharge chamber of RF ion thruster with a flat coil enhanced with ferrite P. Masherov, RIAME, RU	3124848 HEMPT Electric Propulsion Technology for Micro-Satellites A. Genovese, Thales Deutschland, DE	3124907 Thruster Development in MHI(Mitsubishi Heavy Industries, Ltd.) T. Matsuo, Mitsubishi Heavy Industries, Ltd., JP	3124653 Numerical estimation on the acoustic damping characteristics of a simulated rocket chamber T. Shimizu, JAXA, JP	3125342 Experimental Study on Sloshing with Phase Change using Liquid Nitrogen D. haba, University of Tokyo, JP	3124980 Long duration Trials of a Throttleable Gelled Propellant Rocket Motor P. Caldas Pinto, Bayern Chemie, DE	3125090 Comparison of conventionally and 3D Printed Co-axial Swirl Injector for a Green Hypergolic Bipropellant Thruster M.U. Bayramoglu, Olgun, Yilmaz, Donmez, Roketsan Missiles Inc., TR
10:00	3125193 I. Long Life Low Erosion Hall Effect Thruster: Functional Test Campaign A. Leporini, SITAEL S.p.A, IT	3124834 Plasma local parameters measuring in the low power radio-frequency ion thruster discharge chamber with the help of multi-tip probes V. Kozhevnikov, Moscow Aviation Institute (MAI), RIAME MAI, RU	3125035 Progress in Lifetime Test of HEMPT-Propulsion System A. Lazurenko, Thales Electronic Systems, GmbH, DE	3125040 Performance and Design Description of the LTT-i, a UK Qualified and Flight Proven, Low Cost, High Performance 10N MMH/MON Thruster R. Westcott, Moog ISP Westcott, UK	3124830 Development of Skeletal Kinetic Mechanism of Methane Oxidation for High Pressures and Temperatures V. Zhukov, German Aerospace Center (DLR-Lampoldshausen), DE	3124604 Large-Scale Tank Active Sloshing Damping Simulation and Experiment M. Konopka, Airbus DS GmbH, DE	3125163 Green Solid Propellants for Launchers N. WINGBORG, FOI, SE	3125362 Additive manufacturing design principals applied to European launch vehicles O. Domhnall, Moog Dublin Limited, IE
10:30	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Wednesday May 4th, 2016				
	Session 33 - SC - HET (4)	Session 34 - SC - GIEs (3)	Session 35 - EP Testing (1)	Session 36 - SC - Chemical Thrusters: Monoprop & Biprop (2)	Session 37 - ST - Air Breathing Propulsion	Session 38 - ST - Propulsion Components: Nozzles (1)	Session 39 - Overview of Current Programs (3)	Session 40 - AM/3D Printing (3)
ROOM								
Chairpersons								
11:00	3124969 Fully 2D Numerical Simulation of a Nested Channel Hall Thruster H. Dragnea, University of Michigan, US	3125354 Measurement and numerical calculation of temperature in Radio-Frequency Ion Thruster K. Kruglov, RIAME MAI, RU	3124826 Towards standardisation of the EP testing and qualification D. Feilil, ESA/ESTEC, NL	3124952 Aerojet Rocketdyne Monopropellant Thruster Design, Qualification and Flight Heritage O. Morgan, Aerojet Rocketdyne, US	3125033 Experimental Setup on Transpiration Cooling in Supersonic Combustion Ramjets (SCRamjets) F. Strauss, German Aerospace Center DLR, DE	3124978 The separation pattern transitions in the single expansion ramp nozzle influenced by external flows Y. Yu, Jiangsu Province Key Laboratory of Aerospace Power System, Nanjing University of Aeronautics and Astronautics, CN	3125241 Boreas demonstrator for next generation engines T. Jues, CNES, FR	3125301 Aerojet Rocketdyne's Ultra-Low-Cost Bantam Liquid Rocket Engine Family for Low-Cost Launch Applications J. Castro, Aerojet Rocketdyne, US
11:20	3124994 Hall-effect thruster virtual lab F. Taccogna, Cnr, IT	3124730 Analytical and Computational Modeling of Inductively Coupled Plasmas for an Application to the RF Ion Thruster V. Nigmatzyanov, Moscow Aviation Institute (MAI), RU	3124737 Development and Operation of the QinetiQ Electric Propulsion Test Facility S. Clark, QinetiQ, UK	3125004 Thermal Ignition of ADN-based Propellants M. Negri, DLR, DE	3124977 Hydrogen-fueled Scramjet Tests in JF-12 shock tunnel C. Wang, Institute of Mechanics, Chinese Academy of Sciences, CN	3125025 Sandwich NE for Vinci evolution K. Lindblad, GKN, SE	3125287 P5.2 Test Facility for Testing new Ariane 6 Cryogenic Upper Stage (ULPM) G. Krühsel, German Aerospace Center (DLR), DE	3124723 Development and testing of an additive manufactured catalyst bed for HTP thruster applications G. Roberts, University of Southampton, UK
11:40	3125065 Hybrid Simulation of Magnetic Field Effect in the Plume of a Hall Thruster M. Choi, University of Michigan Ann Arbor, US	3124922 Plasma Modelling of a Micro Newton RIT 2.5 R. Henrich, Justus Liebig University of Giessen, DE	3125134 CIRA Roadmap for the Development of Electric Propulsion Test Facilities D. Ricci, CIRA - Centro Italiano Ricerche Aerospaziali, IT	3124683 Propulsion subsystem for the ExoMars entry and descent module (2016 Mission demonstrator) G. LUBRANO DI SCAMPAMORTE, Thales Alenia Space France, FR	3124988 Analysis of Thermal Throat Characteristics of a Wide-Range RBCC Combustor at Ramjet Mode F. Luo, Beijing Power Machinery Institute, CN	3124642 Sea-Level Transitioning Dual Bell Nozzles R. Stark, German Aerospace Center, DE	3124786 Hybrid Propulsion Solutions for Space Debris Remediation Applications M. Faenza, Nammo Raufoss, NO	3125070 Additive manufacturing applied to liquid propulsion & equipment parts for next generation launcher – hurdles & challenges along the value chain S. Beyer, Airbus Defence & Space, DE
12:00	3125066 Modeling Hall Thruster Plume Interaction with Iodine Satellite (ISAT) M. Choi, National Aeronautics and Space Administration - Glenn Research Center, US	3125355 Simulation of ion thruster electrodes temperature deformation A. Mogulkin, RIAME MAI, RU	3124791 Improvements of the advanced electric propulsion diagnostics platform C. Bundesmann, Leibniz-Institute of Surface Modification, DE	3125319 Re-pressurization Concepts for Monopropellant Propulsion Systems P. Gambach, Airbus DS, DE	3125073 A Study on Control Law of Mode Transition for Turbo-aided Rocket-augmented Ramjet Combined Cycle Engine Y. Zheng, Beijing Power Machinery Research Institute, Science and Technology on Scramjet Laboratory, CN	3124648 System Study on Upper Stage Rocket Engine Nozzle Performance R. Stark, German Aerospace Center, DE	3124646 Use of schematic decisions at creation of advanced LOX-kerosene rocket engines of first stages of launch-vehicles on base of RD191 engine V. Sudakov, NPO Energomash, RU	3124878 Selective laser melting (slm) of Inconel 718 and stainless steel injectors for liquid rocket engines S. Soller, Airbus Safran Launchers, DE
12:20	3125067 Micro Cylindrical Hall Thrusters with Permanent Magnets Y. Raitses, PPPL, US	3124614 High-precision power measurement for accurate characterization of RF ion thrusters J. Simon, TH Mittelhessen, DE	3124997 Qualification of the AEPD system as a Standard On-ground Tool for Electric Propulsion Thrusters – Status and Perspectives F. Scortecci, Aerospazio Tecnologie srl, IT	3125108 Investigation of the catalyst degradation mechanism for monopropellant thruster M. Naoki, IHI aerospace, JP	3125083 An assistant scramjet combustor cooling method based on the air sucked from isolator Z. Chenguang, No.31 Research Institute of China Aerospace Science and Industry Corporation, CN	3124950 Investigation of flow behavior in a cold flow C/C-SiC nozzle C. Génin, DLR, DE	3125110 Development of Post Boost Stage for the Epsilon Launch Vehicle S. Koga, IHI Aerospace Co., Ltd., JP	3125220 Additive manufacturing design optimised bipropellant injector S. Hyde, European Space Agency, NL
12:40	LUNCH							
14:00	ROUND TABLE ADDITIVE LAYER MANUFACTURING (TBC)							
15:30	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Wednesday May 4th, 2016				
	Session 41 - SC -HET(5)	Session 42 - EP testing (2)	Session 43 - SC -Plasma and Thrusters (1)	Session 44 - SC -Propulsion Components MEMS	Session 45 - ST - Testing (1)	Session 46 - Propulsion components (1)	Session 47 - ST - Green&New Propellants (2)	Session 48 - Advanced Hybrid Concepts
ROOM								
Chairpersons								
16:00	3125099 Test of a Dual-Mode Hollow Cathode for Hall Effect Thrusters D. Frollani, Mars Space Ltd, UK	3125007 Vibration Isolation System for Micro-Newton Thrust Measurements E. Bosch Borrás, European Space Agency, NL	3125002 Numerical Simulation of ADD SIMP-LEX Pulsed Plasma Thruster Based on a Modified Electromechanical Model X. Liu, University of Stuttgart, DE	3125005 State space modeling of fluid flow for thrust control in MEMS-based micropropulsion M.A. de Athayde Costa e Silva, Cervone, Delft University of Technology, NL	3124991 Investigation of pressure hammer with wire mesh sensors and high speed imaging techniques T. Traudt, DLR Lampoldshausen, DE	3124827 Transfer function identification of POGO system device A. Simon, CNES, FR	3124793 Alkali metal-water combinations as rocket engine propellant: experimental assessment for their capability T. Hiraiwa, JAXA, JP	3124677 Analysis and Preliminary Design of a Hybrid Propulsion Lunar Lander C. Schmierer, Deutsches Zentrum für Luft- und Raumfahrt, DE
16:20	3125116 System Analyses on the 100 W Brand-New CIRA HE Thruster F. Battista, Italian Aerospace Research Centre, IT	3125103 From Development to Measurements: A High Sensitive Vertical Thrust Balance for Pulsed Plasma Thrusters C. Montag, Institute of Space Systems (IRS) at University of Stuttgart, DE	3125062 Development of a numerical model for the optimization of pulse plasma thrusters performance S. Ciaralli, Mars Space Ltd, UK	3124849 Experimental and numerical study of plume flow emanating from rectangular orifices E. Werner, DLR, DE	3125317 Experimental Study of a Laser Ignited Advanced Porous Injector (API)- Thruster Configuration M. Börner, DLR, DE	3124731 The Evolution of the Ariane 5 Attitude Control System SCA for the Galileo Launcher & Mission D. Welberg, Airbus DS GmbH, DE	3125000 Hydrogen Generation by Aluminum-Water Reaction for Propulsion J. Zhang, Dalian Institute of Chemical Physics, CN	3124750 Effect of Fuel-to-Oxidiser Ratio on Thrust Generation of a Hybrid Al + NaOH + H2O Propulsion System for CubeSat Applications O.D. Ahmed, University of Surrey, UK
16:40	3125164 Temporal Evolution of the Performance and Channel Erosion of a 5 kW-Class Hall Effect Thruster Operating With Alternative Propellants T. Andreussi, Sitael S.p.A., IT	3124694 In Orbit demonstration of a CubeSat Propulsion module with Close-loop Thrust Control K. Palmer, Nanospace, SE	3125014 Maiden tests of the HPT05 Helicon Plasma Thruster Prototype M. Merino, Universidad Carlos III de Madrid, ES	3125151 Miniaturised components for satellite propulsion using MEMS technology T.A. Gronland, NanoSpace, SE	3124761 Wet-Priming Test Campaign with Live Propellant Hydrazine and Analysis Correlation A. Pasquier, OHB System, DE	3124965 Analytical estimation of electropump supply system application reasonability for liquid rocket engines A. Dibrivny, Yuzhnoye SDO, UA	3125258 AlH3-based solid propellant development and characterization in GRAIL H2020 project F. Maggi, Politecnico di Milano, IT	3124745 Numerical Simulation of an Isochore Combustion Chamber for Hybrid Rocket Propulsion F. Barato, Università di Padova, IT
17:00	3125199 II. Long-Life Low Erosion Hall Effect Thruster: Model and Comparison V. Giannetti, Sitael S.p.A., IT	3124822 ESA Propulsion Laboratory at ESTEC K. Dannenmayer, ESA, ESTEC, NL	3125222 Two-Dimensional Plasma Flow Measurement in Radio-Frequency Inductive Acceleration of Low-Aspect-Ratio Electrodeless Plasma T. Matsuguma, The university of Tokyo, JP	3124766 Three-dimensional lithography for the microfabrication of colloid emitters T. Henning, Justus Liebig University, DE	3124754 Experimental investigation of Liquid Nitrogen Chilldown Two Phase Flow L. Peveroni, von Karman Institute, BE	3124971 Cool gas generators for repressurization of monopropellant blowdown tanks B. Sanders, CGG Safety & Systems BV, NL	3125268 Recycling of packaging for Obtain Paraffin Doped with Aluminum Nanoparticles Used as Fuel in Hybrid Rockets – Characterization and Thermodynamic Studies R.H. Araujo, University of Brasilia, BR	3125104 Investigation of orbit raising to GEO with combined chemical/electric propulsion systems Q.H. Le, Institute for Space Systems, DE

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Wednesday May 4th, 2016				
	Session 49 - SC -HET (6)	Session 50 - Overview of Current Programs (4)	Session 51 - SC - Plasma and thrusters (2)	Session 52 - EP subsystems - Neutraliser (1)	Session 53 - Modelling Chemical Propulsion (3)	Session 54 - ST - Sloshing Experiments (2)	Session 55 - Propulsion components (2)	Session 56 - ST - Cost Related Aspects
ROOM								
Chairpersons								
17:20	3125333 Experimental Investigations of the Effects of Cathode Coupling Voltage on Thruster Efficiency Considering the Magnetic Field Separatrix N. Turan, Bogazici University, TR	3125142 CIRA Roadmap for the Development of Liquid Propulsion Test Facilities N. Favalaro, C.I.R.A., IT	3124719 Aspects of providing the requirements of spacecraft resistance to electro physical space factors O. Gorshkov, Tsniimash, RU	3125366 Heaterless Hollow Cathode Technology - A Critical Review D. Lev, Rafael, IL	3124681 Advances of the Numerical Modelling of Cryogenic Two-phase Flow in the DLR TAU Code D. Keiderling, German Aerospace Center, DE	3124996 Cryo-Laboratory for Test and Development of Propellant Management Technologies J. Gerstmann, DLR Institute of Space Systems, DE	3125290 Development of High Pressure Fluid SMD Components H.P. Harmann, AST Advanced Space Technologies GmbH, DE	3124693 The environmental life cycle of green propellants J.B. Pettersen, Asplan Viak, NO
17:40	3125367 Power Deposition in Co-Axial Hall Thrusters D. Lev, Rafael, IL	3124611 Cooperative Development of L75 LOX Ethanol Engine: Current Status with Focus on Capacitive Chamber Testing D. Almeida, Instituto de Aeronautica e Espaco, BR	3125283 Initial Mapping of Steady State Applied-Field Magnetoplasmadynamic Thruster SX3 A. Boxberger, Institute for Space Systems, University of Stuttgart, DE	3124900 Physics of a heated LaB6 cathode for Hall thrusters. Part I: Experimental examination R. Jousot, CNRS, ICARE, FR	3124783 Analysis of supercritical methane in rocket engine cooling channels L. Denies, Delft University of Technology, NL	3125273 Design and Development of 2000 kg Linear Shaker Platform for Spacecraft Propellant Tank Slosh Behavior Validation and Research D. Kirk, Florida Institute of Technology, US	3125291 ZBO concepts and on-ground tests for European Long Term Cryogenic Propulsion J. Lacapere, Absolut System, FR	3124658 Micron-sized vs. nano-sized aluminum powders in future launch vehicles: a technical and economic review A. Mazzetti, BlueThink SpA, IT
18:00	3124921 NanoFEEP – Highly miniaturized FEPP propulsion system for attitude and orbit control of CubeSats D. Bock, TU Dresden, DE	3125262 NASA's Evolvable Cryogenics (eCryo) Project M. Meyer, NASA Glenn Research Center, US	3124913 Local Plasma Flow Coupling with Plasma-wave Interaction in Helicon Plasma Thruster B. Tian, Universidad Carlos III de Madrid, ES	3125218 Influence of Power throughout Heaterless Hollow Cathode Ignition A. Daykin-Hilopoulos, University of Southampton, UK	3124788 Turbulence modelling of cavitating flows in cryogenic turbopumps K. Mani, Delft University of Technology, NL	3124682 Experiments on Sloshing for Space Applications at ESA-ESTEC A. Passaro, ATG Europe B.V, NL	3125247 Electronic Pressure Regulator for Liquid Propulsion Rockets P. Tatiosian, CNES, FR	3125121 The long term space transportation cost forecast from the perspective of launch capability and GDP per capita D. Goto, JAXA, JP
END OF CONFERENCE DAY								
19:30 23:30	GALA DINNER							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Thursday May 5th, 2016				
	Session 57 - SC - HET (7)	Session 58 - EP testing (3)	Session 59 - SC - Plasma Thrusters (3)	Session 60 - EP subsystems - Electronics	Session 61 - SC - Green Propulsion for Spacecraft (2)	Session 62 - ST - Propulsion Components: Nozzles (2)	Session 63 - Pressure-Thrust Oscillation Issues (2)	Session 64 - Flight testing and experience
ROOM								
Chairpersons								
09:00	3125211 Investigation of SPT-20.8 plume by means of optical emission spectroscopy method with the scanning of plasma through collimator A. Khaustova, Zhukovskiy National Aerospace University, *KhAI, UA	3124797 An Interlaboratory Comparison of Thrust Measurements for a 200W Quad Confinement Thruster A. Knoll, Surrey Space Centre, UK	3124902 Research and Development of High-Power Steady-State MPD Thrusters with Permanent Magnets and Hollow Cathodes for In-Space Propulsion Y. Sugiyama, Osaka Institute of Technology, JP	3125321 Selex ES capabilities in Electronics and Components for micro-Propulsion A. Polli, Selex ES, IT	3124918 Advancing the ADN-Based Monopropellant Thruster Family for Space Flight K. Anflo, ECAPS, SE	3125162 Original concept of petal extendible nozzle, with composite flaps G. Cotrait, Safran Herakles, FR	3125298 Vorticity Patterns, Sound Generation, Pressure and Thrust Oscillations in Aft-Finocyl SRM E. Cavallini, Sapienza University of Rome, IT	3124889 On the development and demonstration of the NanoSpace CubeSat Propulsion module with Close-loop Thrust Control K. Palmer, NanoSpace AB, SE
09:20	3125256 Testing KLIMT prototypes at IPPLM and ESA Propulsion Laboratories J. Kurzyna, Institute of Plasma Physics and Laser Microfusion, PL	3125191 New Design of RPA for High Accuracy and High Resolution Measurements on for ion thrusters like μ N-RIT P. Köhler, 1st physics institute, DE	3124983 Development of an engineering optimization tool for miniature Pulsed Plasma Thrusters I. Golosnoy, University of Southampton, UK	3124813 Power Processing Unit Activities at Thales Alenia Space Belgium (ETCA) E. Bourguignon, Thales Alenia Space Belgium, BE	3124923 Towards satellite Propulsion with HAN-Based Green Monopropellants J. Liu, Shanghai Institute of Space Propulsion, CN	3125309 VINCI Engine Composite Nozzle Extension for Ariane 6 H. Coperet Airbus Safran Launchers, FR	3125299 Ignition Transient Analysis of the First Stage SRM of VEGA-C Launch Vehicle E. Cavallini, Sapienza University of Rome, IT	3124792 Enhancement of thermal propellant gauging accuracy based on wide application in-flight experience B. Buset, Airbus Defence and Space Satellites, FR
09:40	3125288 EMI Dependence on Facility Chamber Pressures using the SPT-140 DM4 Hall Thruster R. Spektor, The Aerospace Corporation, US	3124698 Diagnostics of Ionic Electro spray Thrusters D.G. Courtney, Ecole Polytechnique Federale de Lausanne, CH	3125054 Design and Test of a Cylindrical IEC Prototype Thruster D. Petkow, Gradel sárl, LU	3125086 Optimized 5 kW PPU for Gridded Ion Engine J. Palencia, Airbus DS, ES	3124774 Hot Firing of a N2O/C2H4 Premixed Green Propellant: First Combustion Tests and Results L. Werling, DLR - German Aerospace Center, DE	3124657 / 3124818 ARIANE 5 MPS ARTA 6 FIRING TEST F. Dufour / G. Mastrangelo Herakles, FR / EUROPROPULSION, FR	3124820 POD-X: SRM Pressure Oscillation Demonstrator G. Mastrangelo, EUROPROPULSION, FR	3124718 Mono-Propellant Propulsion Subsystem constellation: Flight experiences from Globalstar 2 to Iridium-Next P. Capus, Thales Alenia Space, FR
10:00	3125322 Global Model Based Development of a Hall Type Electric Thruster Using I2 Propellant K. Katsonis, Dedalos Ltd, GR	3125057 Electromagnetic Emissions from the FakeI SPT-100 Thruster Measured in the New Aerospazio EMI Test Facility F. Scortecci, Aerospazio Tecnologie srl, IT	3125279 Pulsed Plasma Thruster as a technology demonstrator on PEGASUS C. scharlemann, University of Applied Sciences Wiener Neustadt, AT	3124852 Design and qualification of the PPU MK3 for 5 kW hall effect thrusters S. Fraselle, Thales Alenia Space Belgium, BE	3124769 Numerical Calculation of Heat Flux Profiles in a N2O/C2H4 Premixed Green Propellant using an Inverse Heat Conduction Method N. Perakis, Technical University of Munich, DE	3124777 ARIANE 6 & VEGA-C Programs - The P120C SRM Nozzle E. Gautronneau, Airbus Safran Launchers, FR	3125230 Portable system for accurate unsteady pressure oscillations measurement in a middle scale SRM demonstrator J. Anthoine, ONERA - The French Aerospace Lab, FR	3124919 Concluding a 5 year In-Space Demonstration of an ADN-Based Propulsion System on PRISMA K. Anflo, ECAPS, SE
10:20	3125326 Evaluation of Electron Emission Characteristics on Radio Frequency Plasma Cathode for Hall Thruster M. Ichimura, Tokyo Metropolitan University, JP	3125058 The Aerospazio's Lifetest Facilities and Diagnostics Tools for the HEMPT Qualification Programme F. Scortecci, Aerospazio, I	3125339 Pulsed Plasma Thruster with Non-Volatile Propellant: The Way Forward S. Barral, QuinteScience, PL	Electric Propulsion activities in Airbus DS N. Wagner, Airbus DS, DE	3125064 Research on 1N Monopropellant Thruster Using Hydrogen Peroxide for Small Satellites Q. Lin, Shanghai Institute of Space Propulsion, CN	3124853 A new nozzle contouring concept M. Frey, Airbus DS, DE	3125300 Vorticity Driven Pressure Oscillations during Quasi-Steady State of the First Stage SRM of VEGA-C Launch Vehicle E. Cavallini, Sapienza University of Rome, IT	3125117 The Propulsion Qualification Model for the Orion ESM Propulsion Subsystem M. Michaelis, Airbus Defence and Space GmbH, DE
10:40	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Thursday May 5th, 2016				
	Session 65 - EP testing (4)	Session 66 - SC -Plasma Thrusters (4)	Session 67 - EOL Issues and Debris Management	Session 68 - SC - Green Propulsion for Spacecraft (3)	Session 69 - Microgravity Propellant Modelling & Test (2)	Session 70 - Modelling Chemical Propulsion (4)	Session 71 - Test Facilities (1)	Session 72 - Future Space Transportation
ROOM								
Chairpersons								
11:10	3124676 Far-Field Beam Diagnostics at DLR's EP Test Facility A. Neumann, DLR German Aerospace Center, DE	3125009 Performance of the CubeSat Ambipolar Thruster J.P. Sheehan, University of Michigan, US	3124678 Comparison of Methods and Devices for High Pressure Vessel Passivation B. Zitouni, OHB, FR	3124715 Development of a high-performance hydrogen peroxide monopropellant thruster for launcher applications J.E. Ronningen, Nammo Raufoss, NO	3124823 Numerical simulations of liquid hydrogen behavior in cryogenic tanks under microgravity conditions F. mathey, Air Liquide, FR	3124632 Final test campaign on fluidic mock-up for Exomars EDM propulsion design validation (with hydrazine) F. Lavery, Thales Alenia Space, FR	3125233 Development of a test facility for investigating the solid rocket motor base region in representative external flow conditions L. Pascal, ONERA - The French Aerospace Lab, FR	3125077 The Choice of High Trust Liquid Propulsion Stages in Human Exploration of the Solar System F. Gangami, OHB System AG, DE
11:30	3125100 Local Plasma Parameter Measurement in Stationary Plasma Thruster M. Titov, Zhukovskiy National Aerospace University, "KhAI", UA	3125244 Experimental characterization of a kW-level radio-frequency plasma thruster for project SAPERE-STRONG F. Trezzolani, CISAS-University of Padova, IT	3125249 Design, Manufacturing and Characterisation of the Impulse Transfer Thruster for an Ion Beam Shepherd Mission M. Smimova, TransMIT GmbH, DE	3125136 Development of a catalyst for highly concentrated hydrogen peroxide J.Y. Lestrade, Onera, FR	3125272 An Improved Approach for Measurement of Liquid Surface Tension and Contact Angle with Application to Propellants D. Kirk, Florida Institute of Technology, US	3124867 Multiphase fluid hammer with cryogenic fluids J.B. Gouriet, von Karman Institute, BE	3125318 European Test Centre DLR Lampoldshausen, shaping the future K. Schäfer, DLR, DE	3125260 Low Cost Liquid Propulsion Systems for Launch-, InSpace and SpaceTourism Applications P. Dr. Weuta, WEPA-Technologies GmbH, DE
11:50	3124714 Measurement of Forces in the Beam of Ion Sources and in the Plume of Sputter Targets A. Spethmann, University of Kiel, Institute of Experimental and Applied Physics, DE	3125348 Characterization of plasma jet properties of an Inertial Electrostatic Confinement (IEC) plasma thruster by electrostatic probe Y.A. Chan, Institute of Space System, University of Stuttgart, Germany, DE	3125312 Life Qualification of a Hall Thruster for the Asteroid Redirect Robotic Mission by Analysis and Test J. Polk, Jet Propulsion Laboratory, US	3125325 A Systems Approach for the Transition of NASA Missions to Green Propulsion C. Bacha, NASA GSFC, US	3124637 Baffle concepts for Center of Mass and Sloshing Control for propellant tanks J. Klätte, Airbus Defense and Space, DE	3125133 Improving combustion chamber and pipe components of the European Space Propulsion System Simulation (ESPSS) library with AUSM scheme M. Leonardi, La Sapienza, IT	3124606 A computer system for a test bench – spoilt for choice W. Stuchlik, DLR, DE	3125248 Trade offs and design choices for propulsion systems for Lunar exploration R. Schonenberg, Schonenberg Space Engineering BV, NL
12:10	3124674 Magnetic Fields and Ion Thruster Beam Effects in DLR's EP Test Facility A. Neumann, DLR German Aerospace Center, DE	3125012 Steering a plasma jet without moving parts with a 3D magnetic nozzle M. Merino, Universidad Carlos III de Madrid, ES	3125008 Make-Safe or Deplete – Propulsion Passivation-Ranking M. Lau, OHB-System AG, DE	3125088 Development of a Satellite Propulsion Components for Using Hydrogen Peroxide Propellant K.C. Tseng, National Space Organization, TW	3125350 A CFD Numerical tool for the prediction of cryogenic propellant behavior in spatial launchers F. mathey, Air Liquide, FR	3124743 Transient Performance Simulation for the ORION-ESM Propulsion Subsystem F. Di Matteo, ESA/ESTEC, NL	3124695 "L42" technology demonstrator: operational experience J. Sender, German Aerospace Centre (DLR), DE	3124760 Optimization of space transport system consists of high load capacity launch vehicle, booster with liquid propellant system and space tug with an electric propulsion system for delivery of unmanned and manned space vehicles to the Moon O. Starinova, Samara State Aerospace University, RU
12:30	3124679 Measurement of plasma parameters within the discharge channel of a Halo thruster T. Wantock, University of Surrey, UK	3124945 Liquid and Gaseous Propellant Alternatives for Versatile PPT Operation T. Schönherr, The University of Tokyo, JP	3125181 The Satellite Sweeper Approach for the Solution of the Space Debris Problem P. Pergola, Sitael, IT	3124833 Investigation of Hypergolicity of Liquid Fuels with White Fuming Nitric Acid H. Esiyok, Roketsan Missile Industries, TR	3125338 Passivation Valve for Satellites Propulsion System M. Zaberchik, Rafael, IL	3124776 Progress in Coupled Simulation Propulsion System and Vehicle with ESPSS Satellite Library C. koppel, KopooS Consulting Ind., FR	3125371 A new HMS for the MASCOTTE cryogenic test bench A. Iannetti, CNES, FR	AP2 SLS Evolution for future Missions S. Creech and C. Crumbly, NASA, US
12:50	LUNCH							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST					
Thursday May 5th, 2016								
14:20	<p style="text-align: center;">ROUND TABLE LOX METHANE (TBC) OR DEBRIS AND REGULATION</p>							
15:50	COFFEE BREAK							
	Session 73 - EP subsystems - Neutraliser (2)	Session 74 - EP Propellant Management (1)	Session 75 - RAM-EP	Session 76 - SC - Green Propulsion for Spacecraft (3)	Session 77 - ST - LOX / CH4 Propulsion (2)	Session 78 - ST - Propulsion Components: Combustion Chambers (2)	Session 79 - ST - SRM (2)	Session 80 - Overview of Current Programs (5)
ROOM								
Chairpersons								
16:20	<p>3124817 Physics of a heated LaB6 cathode for Hall thrusters. Part II : Numerical simulations L. Garrigues, Laplace/CNRS, FR</p>	<p>3125316 New component developments for electric propulsion system A. Moureaux, Air Liquide Advanced technologies, FR</p>	<p>3125197 Design of a Double-Stage RAM-EP Concept Based on Hall Effect Thruster Technology V. Giannetti, Sitael S.p.A., IT</p>	<p>3125179 Design and Testing of a 98% H2O2 Pulsed Thruster A. Pasini, Sitael, IT</p>	<p>3125137 Investigation on the Transcritical Behaviour of Methane and Numerical Rebuilding Activities in the Framework of ASI/JAXA Cooperation Project D. Ricci, CIRA - Centro Italiano Ricerche Aerospaziali, IT</p>	<p>3125028 RD815 engine preburner demonstrator development A. Dibrivny, Yuzhnoye SDO, UA</p>	<p>3124895 Controllable Solid Propulsion Technologies for Space Applications P. Ceubet, Herakles, FR</p>	<p>3125302 Challenges on modelling fluid-dynamic problems of space propulsion systems. Overview of selected programmatic efforts at the European Space Agency J. Longo, ESA, Technical Centre ESTEC, NL</p>
16:40	<p>3124790 Performance Modelling of a Radio Frequency Plasma Bridge Neutralizer F. Scholze, Leibniz-Institute of Surface Modification, DE</p>	<p>3125194 Electric propulsion system trade-off analysis based on alternative propellant selection V. Giannetti, Sitael S.p.A., IT</p>	<p>3125202 Experimental Validation of a RAM-EP Concept based on Hall Effect Thruster Technology G. Cifali, Sitael S.p.A., IT</p>	<p>3124684 Realistic Testing of PX1 Catalyst Using Near-Anhydrous Hydrogen Peroxide A. Musker, DELTACAT Ltd, UK</p>	<p>3125152 LOX/GCH4 Heat Sink Combustion Chamber: Numerical Rebuilding of Experimental Data D. cardillo, CIRA, IT</p>	<p>3125107 Regenerative Cooling Performance Analysis of the LE-5B Engine Combustion Chamber H. Negishi, JAXA, JP</p>	<p>3125257 Modeling Alumina Particles Evolution and Break-up in SRM D. Simone, University of Brasilia (UnB) at Gama, BR</p>	<p>3124856 DS2000 Propulsion System, Propellant Loading Service S. Ziegenhagen, AIRBUS DS GmbH, DE</p>
17:00	<p>3124768 The Design, Development, Manufacture and Qualification Testing of a Hollow Cathode Neutralizer for the QCT-200 T. Potterton, Surrey Satellite Technology Limited, UK</p>	<p>3125240 Fundamental experiments with liquid propellants for the microwave-discharge ion thruster Y. Nakagawa, The University of Tokyo, JP</p>	<p>3124972 CO2 / N2 Breathing Electric Thrusters for LMOs K. Katsonis, DEDALOS Ltd, GR</p>	<p>3124844 Development of near-anhydrous hydrogen peroxide (? 97%) for satellite propulsion and assessment of material compatibility for fluidic components and light weight propellant tanks M./J. Wolf / Christ, Airbus DS GmbH / Evonik Industries AG, DE</p>	<p>3125154 CFD Support to the Design of the Injection Plate in the Framework of the ASI/JAXA Cooperation in LO2/LCH4 Propulsion D. cardillo, CIRA, IT</p>	<p>3124639 Comparison of Oxygen-Hydrogen Combustion Visualisation Techniques Under Representative Conditions S. Webster, DLR, DE</p>	<p>3125307 Innovative solution for solid rocket segmented booster cases A. Mataloni, avio, IT</p>	<p>3124816 HF Combustion Stability - Research Activities in Germany R. Kaess, Airbus Defence and Space, DE</p>
17:20	<p>3125173 Experimental and theoretical investigation of thermal fluxes distribution in heaterless hollow cathode construction for 10-50A current range A. Tsaglov, National Aerospace University, UA</p>	<p>3124736 Diamonoids as alternative propellants for ion thrusters K. Holste, Justus-Liebig-University Giessen, DE</p>	<p>3124981 Various Propellants applied to an IPG for an Air-Breathing Electric Propulsion System F. Romano, Institut für Raumfahrtssysteme (IRS), University of Stuttgart, DE</p>	<p>3124845 Pyroshock testing of high-strength hydrogen peroxide L. Krogstie, Nammo Raufoss AS, NO</p>	<p>AP4 Foundational Methane Propulsion Related Technology Efforts, and Challenges for Applications to Human Exploration Beyond Earth Orbit T.M. Brown, NASA, US</p>	<p>3124720 Effects of Fuel Temperature on Dynamic Characteristics of GOx/Kerosene Combustion W. Song, Korea Aerospace University, KR</p>	<p>3124722 Particle detection & size evaluation in solid propellant flames via experimental image analysis, in order to improve two-phase flow simulation in rocket engines M. Nogue, ONERA, FR</p>	<p>3124951 Status of FLPP Propulsion Demonstrators –Technology Maturation, Application Perspectives K. Underhill, European Space Agency, FR</p>
17:40	<p>3125275 A Novel Multi-Channel Hollow Cathode for Low-Power Applications L. Hahl, University of Brasilia, BR</p>	<p>3125332 Development of a Spherical COPV over a thin wall titanium liner Y. Seri, RAFAEL, IL</p>	<p>3125269 Water "In-Space" Electrical Propulsion System For Future Deep Space Mission N. Yuichiro, Splije L.L.C, JP</p>	<p>3124770 Development of Metallic Foam Monolithic Catalysts for Green Monopropellants Propulsion A. Shchetkovskiy, Plasma Processes, LLC, US</p>	<p>3125053 LOX – LCH4 propulsion engine for reusable launch system M. Rudnykh, AVIO s.p.a, IT</p>	<p>3124891 Hot-fire Testing of Development Booster Engine for H3 Launch Vehicle D. Watanabe, JAPAN, JP</p>	<p>3125027 Analytical Techniques For Structural Analysis of Solid Rocket Motors Y. Erturan, Roketsan AS, TR</p>	<p>3124885 Overview of the Euclid Reaction Control System and Micro Propulsion Feed Assembly R. Delanoë, OHB Sweden, SE</p>
18:00	<p>3125365 Cathode Test Facility at Rafael D. Lev, Rafael, IL</p>	<p>3125114 Preliminary design of a miniaturized mechanical alternating regulator for propellant delivery systems feeding Hall thrusters H. Moreira, Omnidea, PT</p>	<p>3125078 Impact of Dielectric Separation on Transition Point and Accessible Flow Enthalpy of Inductive Plasmas A. Chadwick, University of Adelaide, AU</p>	<p>3125071 Development of a Satellite-Level Propulsion System by Using Hydrogen Peroxide Propellant T.C. Kuo, National Space Organization, TW</p>	<p>3124685 LOX/METHANE propulsion demonstrators V. Pierre, Airbus Defence and Space, FR</p>	<p>3124943 Development of a direct spark ignition system for restartable upper stage engines R. Matthijssen, Aerospace Propulsion Products BV, NL</p>	<p>3124886 P120C Solid Rocket Motor: the common propulsive module for next generation European Launch Vehicles M. Cutroni, Europropulsion, FR</p>	<p>3124697 HYPROGEO project technical challenges and coordination A. Lecossais, AIRBUS Defence and Space, FR</p>

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Friday May 6th, 2016				
	Session 81 - EP Propellant management (2)	Session 82 - SC-Plume Interaction	Session 83 -EP New Concepts (2)	Session 84 - SC - Green & New Propellants (3)	Session 85 - Modelling Chemical Propulsion (5)	Session 86 - ST - Propulsion Components: Tanks and Lines	Session 87 - Processes and Manufacture (1)	Session 88 - Modelling Chemical Propulsion (6)
ROOM								
Chairpersons								
09:00	3125143 Xenon Flow Controller Development P. Smith, Moog Cheltenham, UK	3124866 Next generation plume modelling and its impact on S/C design B. Zitouni, OHB, DE	3124850 Cathode-less gridded ion thrusters for small satellites A. Aanesland, LPP, CNRS-Ecole Polytechnique, FR	3124966 Hypergolic green propellants based on the HTP for a future satellite platforms W. Florczuk, Institute of Aviation, PL	3125060 LNG mixing and combustion under supercritical conditions P.E. Lapenna, University of Rome "La Sapienza", IT	3125021 Trial Manufacturing and Evaluation of New Composite Propellant Tank for Satellite K. Hatai, JAXA, JP	3125072 Advanced material & manufacturing technologies applied to combustion chamber parts for next generation launcher T. Sebald, Airbus Defence & Space, DE	3125155 Parametric Study of an Expander Bleed Engine Performance M. Leonardi, La Sapienza, IT
09:20	3125306 Xenon tank for electric propulsion, needs and challenges L. Velut, AIRBUS Defence and Space, FR	3124752 Simulation of the Thruster-Spacecraft Interactions between the UWE-4 CubeSat and a NanoFEEP Thruster using SPIS M. Tajmar, TU Dresden, DE	3124914 Design, Fabrication, Testing and Modeling of a Vaporizing Liquid Micropropulsion System T. van Wees, Delft University of Technology, Faculty of Aerospace Engineering, NL	3125034 ADN: Production, properties and future perspective H.H. Stenmark, Skifs, Skarstind, Jahansson and Ek, EURENCO Bofors AB, SE	3125263 Combustion Modeling Study for a GCH4/GOX single element combustion chamber : Steady State Simulation and Validations Y. Daimon, Japan Aerospace Exploration Agency, JP	3124654 The Evolution of a Family of Propellant Tanks Containing Propellant Management Devices W. Tam, Orbital ATK, US	3125016 TRL5 Development of cryogenic External Tank Insulation (ETI) for Launcher Application W.P. Fischer, Airbus Safran Launchers, DE	3125153 SUMO : An ESPSS extension for the surface evolution of propellant grains J. hijkema, ONERA, FR
09:40	3125359 Electronic Pressure and Flow Regulation equipment applied to electric and cold gas propulsion G. Noci, Selex ES, IT	3124968 A 3D hybrid code to study electric thruster plumes F. Cichocki, Universidad "Carlos III" de Madrid, ES	3124931 High thrust-over-power electric thruster A. Fruchtman, H.I.T. - Holon Institute of Technology, IL	3125295 Investigations about TMTZ, a prospective future propellant A. Dhenain, CNRS, FR	3124814 Numerical Simulation of the Hot Gas Side Flow and Wall Heat Transfer in CH4/O2 Rocket Thrust Chambers H. Riedmann, Airbus DS GmbH, DE	3124733 LH2 Feed Line Evaporation Cooler A. Isselhorst, Airbus DS, DE	3125157 Technological development of the Single Material Single Part Regenerative Combustion Chamber D. Liuzzi, Avio, IT	3125156 ESPSS Model of a Simplified Combined Cycle Engine for Supersonic Cruise J. Moral, EAI, ES
10:00	3124993 EUCLID Micropropulsion Feed Assembly Pressure Stability Verification M. Pessana, Thales Alenia Space Italia, IT	3125079 Validation of Numerical Plume Modelling of a CAMILA Hall Effect Thruster M. Laterza, Technion, IL	3125171 Lifetime Testing of the mN-FEEP Thruster A. Reissner, FOTEC, AT	3124842 On the quest towards new "Green" ionic liquids to replace hydrazine-based propellants C. Miró Sabaté, University of Lyon, FR	3124995 Development of an Analytical Laser Ignition Model B. Mewes, Airbus Safran Launchers, DE	3125119 Design and manufacturing of an overwrapped gas pressure tank A. Mataloni, Avio s.p.a., IT	3124906 Replacing Titanium for the manufacturing of demisable propellant tanks. Investigation of Al-Lithium and its welding optimization R. Bellarosa, Airbus Defence and Space, UK	3125093 ESPSS implementation of Two-Phase flow model with AUSM scheme F. Pinna, von Karman Institute, BE
10:20	3124773 Overview of NASA Iodine Hall thruster propulsion system development T. Smith, NASA Glenn Research Center, US	3124717 Aspects of providing the requirements of spacecraft resistance to electro physical space factors E. Tvedokhlebova, Central Research Institute of Machine Building (TsNIImash), RU	3124800 Novel architecture for an ion-ion plasma thruster D. Renaud, CNRS-ICARE, FR	3124839 An Overview of the German Gel Propulsion Technology Program C. Kirchberger, German Aerospace Center (DLR), DE	3125126 Unsteady Numerical Analysis of Spray Combustion for Coaxial Jet Burner Using Detailed Chemical Reaction Mechanism M. Motoe, Japan Aerospace Exploration Agency, JP	3124782 Development of propellant tank for hydrogen peroxide in launcher applications L. Solli, Nammo Raufoss AS, NO	3124960 Preparation of exo-tetrahydrotricyclopentadiene based high energy density fuels Y. Cong, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, CN	3124829 Extended gas generator cycle W. Kutsche, DLR, DE
10:40	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST	Friday May 6th, 2016				
	Session 89 - EP Propellant Management (3)	Session 90 - ST - Advanced Processes and Manufacture	Session 91 - SC - AOCs/RCS	Session 92 - ST - Modelling	Session 93 - ST - Engine Development	Session 94 - Modelling SubSystems and Systems	Session 95 - ST - Testing (2)	Session 96 - Advanced Concepts
ROOM								
Chairpersons								
11:10	3125198 Development of an Electronic Pressure Regulation System with Proportional Control Valve for Xenon-fed Electric Propulsion Systems P. Boyle, Marotta Controls, US	3125375 New horizons for SMA (Shape Memory Alloy) in space propulsion applications O. LIVNE, RAFAEL, IL	3125140 Propulsion Module for GOCE 2 P. Smith, Moog Cheltenham, UK	3124805 Modelling of the cyclic and viscoplastic behavior of a copper-base alloy using Chaboche's model W. Bouajila, DLR Lampoldshausen, DE	3124726 Development of LE-9 engine H. Kawashima, JAXA, JP	3125128 Performance Analysis of the ORION European Service Module Propulsion Subsystem B. Determann, Airbus DS, DE	3125085 Experimental Investigation on the Ignition and Combustion Characteristics of a Single Magnesium Particle in Air Y. Feng, National University of Defense Technology, CN	3124617 Elements of United Physics for Aerospace Propulsion, Radiative Medium Motion and Intellect Background with Experimental Confirmations M. Ivanov
11:30	3125138 Development of a Iodine Feeding System for Electric Propulsion F. Paganucci, University of Pisa, IT	3125185 Filament wound solid rocket motor vessels health monitoring through fiber bragg gratings G. Fabbri, Avio s.p.a, IT	3124753 Cryosat-2 Propulsion System Model F. Di Matteo, ESA/ESTEC, NL	3124624 Thermal Model Recognition for Propellant Gauging on SpaceBus 4000 platform I. Antoine, Thales Alenia Space, FR	3125052 Nitrous Oxide Ethanol Bi-propellant Rocket Engine & Gas Generator Development and Testing M. Grubelich, Sandia National Laboratories, US	3124607 An Introduction to Airbus DS Modular Propulsion System and its Implementation for MetOp-SG and Jason CS J. Wynn, Airbus Defence & Space Ltd, UK	3125351 Experiments on water hammer induced by fast opening valve during priming: effect of gas desorption M. Lema, University of A Coruña, ES	3125172 Water ACS for Orbital Vehicle D. Fiot, AIRBUS DS - ASL, FR
11:50		3124964 Synthesis of Twin Screw Process Demonstration Technology Activities For Solid Propulsion S. Saint Martin, Herakles (Safran), FR	3124656 Low-thrust liquid rocket thruster on ecologically pure monopropellant D. Goza, EDB Fakel, RU	3124821 Determination of the temperature and stress dependency of porous continuous fiber-reinforced composite materials permeability through experiment and simulation W. Bouajila, DLR Lampoldshausen, DE	3124846 Development of LE-5B-3 engine for H3 launch vehicle N. Naoki, Japan, JP	3124855 Thermodynamic Assessment of Hypersonic Aircraft Missions V. Fernandez Villace, ESA, NL	3124870 Laser-Induced Breakdown Spectroscopy of Gas Compositions for Equivalence Ratio Determination in Space Propulsion R. Stützer, German Aerospace Center, DE	3125076 Investigation of orbit correction via pulses generated by a small thruster ejecting a weight D. Michaels, Massachusetts Institute of Technology, US
12:10		3125031 The biggest Carbon-Epoxy solid rocket motor case demonstrator ever made D. BOURY, Herakles, FR	3124932 Fluidic passivation system minimizing the force and torque on a satellite (example of CNES' Microscope mission) T. Liénart, CNES, FR	3124647 Numerical Investigation of Two Interacting Parallel Thruster-Plumes M. Grabe, DLR - German Aerospace Center, DE	3125074 Delta-Qualification of the Airbus DS S400-15 bi-propellant engine S. Kraus, Airbus DS GmbH, DE	3125216 Silicon oil thermal barrier system for in space applications S. Hyde, European Space Agency, NL	3124712 Response of a reacting cryogenic oxygen jet to transverse acoustic forcing J. Hardi, DLR, DE	3124618 LENR theory and application to aerospace power plant M. Ivanov, Central Institute of Aviation Motors, RU
12:30		3124990 Development & Engineering model testing of a SMA NC Valve S. Kraus, Airbus DS GmbH, DE	3125208 Stable Operation and Lateral Thrust Measurement of an Adjustably-designed Solid Micro-thruster for a Cubesat J. Asakawa, The University of Tokyo, JP	3124659 RPA: scripting interface for modelling rocket propulsion systems A. Ponomarenko, RPA - Rocket Propulsion Analysis, DE	AP3 SLS Booster Development Status A. Priskos, NASA, US	3125358 EUCLID MPS advanced verification G. Noci, Selex ES, IT	3124880 An Investigation of Nitric Acid Hypergolicity with Lithium Aluminum Hydride and Paraffin Wax Fuels K. Stober, Stanford University, US	3124772 Development of a Modular Propulsion Unit for Small Satellite Applications M. Poucet, Moog Inc., BE
12:50	END OF CONFERENCE							