

Sunday May 1st, 2016	
17:00	REGISTRATION
19:00 20:30	WELCOME COCKTAIL / Marriott Rome Park Hotel
Monday May 2nd, 2016	
08:30	REGISTRATION
09:00	WELCOME COFFEE
ROOM	PLENARY SESSION - TIZIANO
10:00	<p>CONFERENCE INTRODUCTION Stefano FIRPO, General Director for Industrial Policy Competitiveness and SMEs, Italian Ministry of Economic Development Michel SCHELLER, President, Association Aéronautique et Astronautique de France (3AF) Giorgio SACCOCCIA & Dominique RIBEREAU, Conference Chairs</p>
10:30	<p>HEAD OF AGENCIES ROUND TABLE ON SPACE MISSIONS: MID AND LONG TERM POLICIES Moderator: Chiara MANFLETTI, ESA Johann Dietrich WÖRNER, Director General, European Space Agency (ESA) Claus LIPPERT, Head of Department Launcher Systems, German Aerospace Agency (DLR) James FREE, Deputy Associate Administrator for Human Exploration and Operations, National Aeronautics and Space Administration (NASA) Roberto BATTISTON, President, Italian Space Agency (ASI) Jean-Marc ASTORG, Director of Launchers, French Space Agency (CNES) Nick COX, Head of Space Technology Strategy, UK Space Agency (UKSA) Ekaterina TVERDOKHLEBOVA, Head of Department "Innovative developments and technologies in the rocket-space industry", Central Research Institute of Machine Building (TsNIIMASh)</p>
12:10	<p>KEYNOTE SPEECH: BUILDING BLOCKS OF THE ESA EXPLORATION PROGRAMME Bernardo PATTI, Head of ISS Programme & Exploration Office, ESA</p>
12:30	LUNCH
13:45	<p>PRIMES AND OPERATORS VS SUPPLIERS VIEWS ON SPACE PROPULSION: SPACE TRANSPORTATION Moderator: Lucia LINARES, ESA Stéphane ISRAEL, CEO, Arianespace Hervé GILIBERT, CTO, Airbus Safran Launchers (ASL) Pier Luigi PIRRELLI, CEO, European Launch Vehicle (ELV S.p.A.) Hans J. STEININGER, CEO, MT Aerospace Gerhard HAGEMANN, Director of Propulsion and Equipment - Acting, Airbus Defense & Space Ulf PALMÅS, Vice President Business Development and Marketing, GKN Aerospace Karl Wieland NAUMANN, Director Business Development & Strategy, Bayern-Chemie</p>
15:30	COFFEE BREAK
16:00	<p>PRIMES AND OPERATORS VS SUPPLIERS VIEWS ON SPACE PROPULSION: SPACECRAFT Moderator: Nicole VIOLA, Politecnico di Torino Cosmo CASAREGOLA, Propulsion, Mechanical and Thermal Systems, Engineering Department, Eutelsat Philippe GARÇON, Head of Propulsion Department, Thales Alenia Space Vincent JACOD, Head of Electric Propulsion Department, Airbus Defence & Space Markus PEUKERT, Head of Propulsion Department, OHB Systems AG Nicola ZACCHEO, CEO, SITael Jason CHOU, CEO, Head Aerospace Roger MYERS, Executive Director, Redmond Operations, Aerojet Rocketdyne Mathias PERSSON, President, ECAPS Nicolas de CHANAUD, Electric Propulsion & Business Development Deputy Manager, Snecma Safran Group Eric BOURGUIGNON, PPU Product Manager, Thales Alenia Space Belgium Fernando PINTÓ, Product Line Manager for Power Products, Airbus DS Space Equipment</p>
18:00	END OF DAY 1
19:30 23:00	TRADITIONAL DINNER / Antico Casale la Carovana

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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Tuesday May 3rd, 2016

ROOM

PLENARY SESSION - TIZIANO

08:30

KEYNOTE SPEECH: SPACE PROPULSION, PAST, PRESENT AND FUTURE
Jean-Jacques DORDAIN, former Director General of ESA

Session 1 - EP In Space (1)	Session 2 - ST - Air Breathing Propulsion - SABRE	Session 3 - EP New Concepts (1)	Session 4 -SC - Propellant Management (1)	Session 5 - ST - LOX / CH4 Propulsion (1)	Session 6 - ST - Hybrid Propulsion (1)	Session 7 - Overview of Current Programs (1)	Session 8 - ST - Propulsion Components: Combustion Chambers
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BRAMANTE 1

BRAMANTE 2

BRAMANTE 3

BRAMANTE 4

BRAMANTE 5

BRAMANTE 6

BRAMANTE 7

BRAMANTE 8

Chairpersons	V. Hruby, Busek, US	M. Ford, ESA	G. Popov, RIAME, RU	A. Cervone, TU Delft, NL	J. Gigou, ESA N. Ierardo, ESA	K. Underhill, ESA	T. Jues, CNES/DLA/SDT/, FR J. Gonzalez del Amo, ESA	S. Soller, Airbus Safran, FR
09:00	3124687 Plasma Propulsion TAS in-flight Experience A. Naulin, Thales Alenia Space, FR	AP5 The SABRE engine – A new approach to technology development for space access D. Perigo, ESA, NL	3124967 Studying the plume neutralization process of the PEGASES thruster F. Cichocki, Universidad "Carlos III" de Madrid, ES	3124721 Thermal Propellant Gauging in OHB I. Fischer, OHB System, DE	3125059 Advancements in the HYPROB-BREAD project: design and testing of a LOX/LCH4 demonstrator F. Battista, Italian Aerospace Research Centre, IT	3124641 Demonstration of 30kN-thrust hybrid rocket propulsion at Nammo Raufoss within ESA FLPP A. Boiron, Nammo Raufoss AS, NO	3125105 ASI-JAXA cooperation in the field of LOX-Methane propulsion for Space applications E. d'Aversa, ASI Italian Space Agency, 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
09:20	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	3125223 The SABRE Engine Concept R. Bond, Reaction Engines Ltd, UK	3125189 Modelling of Ion Current, Cathode Heating and Thrust in Inertial Electrostatic Confinement Devices D. Petkow, Gradel sárl, LU	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	3125050 O2/CH4 Thruster Demonstrator design and testing for RCS/RACS thruster application A. Schoeller, AVIO S.p.a., IT	3124934 Optical Analysis of Hybrid Rocket Combustion with Decomposition Methods A. Petrarolo, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), DE	3125132 JAXA's Current Activities for the Research of a LOX/LCH4 (LNG) Engine I. Masuda, JAXA, JP	3124668 Synthesis of a niobium thrust chamber coated with MoSi2 coating X. Zhang, Aerospace Research Institute of Material and Processing Technology, CN
09:40	3125308 Electric propulsion as an enabling technology for a very low Earth orbit mission L. Ansalone, ASI - Agenzia Spaziale Italiana, IT	Intake and Bypass for the SABRE Engine J. Barth, Reaction Engines Ltd, UK	3124954 Cubesat testing of Coulomb drag propulsion P. Janhunen, Finnish Meteorological Institute, FI	3125270 Migration of Center of Gravity on a 40 Inch Diameter Tank with Stiffening Rings D. Kirk, Florida Institute of Technology, US	3124644 Cryogenic Rocket Engine Developments at Delft Aerospace Rocket Engineering J. Wink, Delft University of Technology, NL	3125289 Mission Definition and System Requirements for Highly-Functional Hybrid Rocket Demonstration T. Shimada, Japan Aerospace Exploration Agency, JP	3124609 Activities on Electric Propulsion at ESA J.A. Gonzalez del Amo, ESA, NL	3124877 Application of laser-ignition systems in liquid rocket engines S. Soller, Airbus Safran Launchers, DE
10:00	3124832 Comparison of Future Mission Needs with Available Electric Propulsion Technologies B. Wollenhaupt, OHB System, DE	3125224 Pre-Cooler Design and Development for the SABRE Engine R. Bond, Reaction Engines Ltd, UK	3124869 NOMADS: Development of a versatile Plasma Discharge Simulation platform for Electric Propulsion D. Perez-Grande, Universidad Carlos III de Madrid, ES	3124905 Achieving High Precision Centre of Mass and Sloshing Control in Spacecraft with PMD Propellant Tanks R. Bellarosa, Airbus Defence and Space, UK	3125115 LOX/GCH4 Heat Sink Combustion Chamber: Testing and Assessment of Experimental Data D. Cardillo, Italian Aerospace Research Centre, IT	3124672 Development and performance of the 10 kN hybrid Rocket Motor for the Stratos II Sounding Rocket R. Werner, TU Delft, NL	3125329 Green Propulsion activities: Update of current status and activities from ESA A. Gernoth, ESA, NL	3124645 Laser ignition of LOX-kerosene propellant in liquid rocket engine of "Soyuz" LV N. Ivanov, NPO Energomash, RU
10:20	3125242 The integration of electric propulsion thrusters on very low earth orbit microsatellites J. Walsh, University of Bristol, UK	3125226 Aerospace Compressor & Turbine Technologies for Reusable Space Vehicle Powerplants P. Davies, Reaction Engines Ltd, UK		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	3124622 LOX/Methane Thrust Chamber Demonstrator Testing R. Biasi, Airbus-Safran-Launchers, FR	3125055 Hybrid Motor Demonstrator activities for lander module system A. Schoeller, AVIO S.p.a., IT	3124917 Overview over Airbus DS Alternative Propellant Activities U. Gotzig, Airbus DS GmbH, DE	3124927 Methane/oxygen laser ignition in an experimental rocket combustion chamber: Impact of mixing and ignition position M. Wohlhüter, DLR Lampoldshausen, DE
10:40		3125048 Testing Air-Breathing Rocket Engines J. Macfarlane, Airborne Engineering Limited, UK		3125274 Characterization of Elastomeric Diaphragm Motion within a Spacecraft Propellant Tank D. Kirk, Florida Institute of Technology, US	3124947 LOX/Methane reusable rocket propulsion at reach with large scale demonstrators tested S. Magniant, Airbus Defence & Space, FR	3124608 Re-ignition and Performance Study of N2O/HTPB Hybrid Rocket Motors L.Y. Huang, National University of Defense Technology, CN		3124764 Numerical Investigation of Creep Fatigue Damage Mechanisms in Rocket Combustion Chambers H. Amakawa, Japan Aerospace Exploration Agency, JP
11:00	COFFEE BREAK							

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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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 - ST - SRM (1)	Session 15 - Modelling SubSystems and Systems	Session 16 - AM/3D Printing (1)
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8
Chairpersons	S. Bianchi, Air Liquide Advanced Technologies, FR	M. Andreucci, ALTA S.p.A., IT D. Di Cara, ESA	M. Micci, Penn State University, US F. Wilson, Aerojet Rocketdyne	C. Hunter, ESA	I. Masuda, JAXA, JP D. Boury, Safran Herakles, FR	J. Gigou, ESA M. Biagioni, AVIO S.p.A., IT	M. Peukert, OHB Systems, DE	S. Aknouche, GKN Aerospace, SE K. Anflo, ECAPS, SE
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 SGE0 Platform F. Gangami, OHB System AG, DE	3124699 Electronically Controlled, Piezo-Actuated, 10,000 psi Regulator J. Ponzio, Marotta Controls, US	3125015 Numerical Rebuilding of an Experimental Test Campaign on a Supercritical Methane Cooling Channel M. Pizzarelli, University of Rome "La Sapienza", IT	3125118 Advanced Biological Treatment for Solid Propulsion - LICORNE G. Dupouy, Herakles - Groupe Safran, FR	3125128 Performance Analysis of the ORION European Service Module Propulsion Subsystem B. Determann, Airbus DS, DE	3124940 Turbine design for Ariane 6 Vulcain turbopumps upgrades S. Brodin, GKN Aerospace, SE
11:50	3125243 Propulsion Options for Station Keeping of Small LEO Satellites M. Leomanni, Università di Siena, IT	3124969 Fully 2D Numerical Simulation of a Nested Channel Hall Thruster H. Dragnea, University of Michigan, US	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	3125207 Identification of Heat Release Response Function in a Single Element Combustor M.L. Frezzotti, Sapienza, Università di Roma, IT	3125146 Crack evolution in a frontal thermal protection: numerical analyses and experimental validation F. Paglia, AVIO S.p.A., IT	3124855 Thermodynamic Assessment of Hypersonic Aircraft Missions V. Fernandez Villace, ESA, NL	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	3125320 Microgravity PMD investigations R. Putzu, Hepia, CH			3125216 Silicon oil thermal barrier system for in space applications S. Hyde, European Space Agency, NL	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		3124992 Low cost electrically actuated valves for space liquid rocket engines V. Ledoux, Techspace Aero, BE			3125358 EUCLID MPS advanced verification G. Noci, Finmeccanica, IT	3124941 3D-Printing of High Temperature Materials for Next Generation Thrusters and Apogee Engines L. Wermuth, Airbus DS GmbH, DE
12:50	LUNCH							

Tuesday May 3rd, 2016

ROOM

PLENARY SESSION - TIZIANO

14:20

PLENARY ROUND TABLE: PROPULSION FOR MICRO AND NANO SATELLITES

Moderator: Sabrina CORPINO, Politecnico di Torino
Fabio CARAMELLI, ESA/ESRIN
Fabio NICHELE, System Engineering, Tyvak
Jason CHOU, CEO, Head Aerospace
Nicola ZACCHEO, CEO, SITAEL
Jean MUYLAERT, Director, von Karman Institute for Fluid Dynamics
Michele COLETTI, Director, Mars Space Ltd
Vlad HRUBY, President, Busek
Vytenis BUZAS, CEO, Nanoavionics
Chen YEN-SEN, National Applied Research Laboratories, Taiwan

15:50

COFFEE BREAK

Session 17 - SC - GIEs (1)

Session 18 - SC - HET (2)

Session 19 - SC - Electrothermal (2)

Session 20 - SC - Green Propulsion for Spacecraft (1)

Session 21 - Pressure-Thrust Oscillation Issues (1)

Session 22 - ST - Hybrid Propulsion (2)

Session 23 - Overview of Current Programs (2)

Session 24 - ST - Propulsion Components: Injectors

ROOM

BRAMANTE 1

BRAMANTE 2

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BRAMANTE 8

Chairpersons	R. Lewis, Qinetiq, UK N. Wallace, ESA	T. Misuri, Sitael, IT D. Estublier, ESA	N. Kutufa, ESA	J. Robinson, NASA, US	G. Mastrangelo, Europropulsion, FR O. Orlandi, Herakles Safran Group, FR	J.E Rønningen, Nammo Raufoss, No	L. Boccaletto, ESA	D. Suslov, DLR, DE
16:00	3124863 T6 Kaufman Ion Engine Development R. Lewis, QinetiQ, UK	3125196 Development of a 20 kW-Class Hall Effect Thruster A. Leporini, SITAEL S.p.A, IT	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	3124656 Low-thrust liquid rocket thruster on ecologically pure monopropellant D. Goza, EDB Fakel, RU	3125096 Demonstration of Pressure Oscillation Reduction For a New Large Monolithic Motor S. Larrieu, Herakles Safran Group, FR	3125046 3D MILES simulation of a hybrid rocket with swirl injection J. Messineo, ONERA, FR	3125098 ORION European Service Module Propulsion Subsystem D. Kajon, B. Determann, Airbus DS GmbH, DE	3124701 Flow Interaction by Multi Doublet Injectors C. Inoue, The University of Tokyo, JP
16:20	3125251 AIRBUS DS GmbH Radio Frequency Ion Thrusters and Systems for Scientific and Commercial Applications H. Leiter, Airbus DS, DE	3124638 MEPS Engineering Model Development and Test T. Misuri, SITAEL, IT	3124903 Research and Development of Low-Power Arcjet Thrusters with Green Propellants of HAN and Water Y. Fukutome, Osaka Institute of Technology, JP	3125343 Space qualification of monopropellant LMP-103S P. Thomählen, ECAPS, SE	3125130 Modelling Chug Instabilities by Variable Time Lag Approach M. Leonardi, La Sapienza, IT	3125176 Simulations of GOX/HTPB Hybrid Rocket Flowfields Including Modeling of Fuel Pyrolysis and Thermal Radiation G. Leccese, Sapienza University of Rome, IT	3124696 FLPP ETID: Cryogenic Expander Technologies to Increase the Competitiveness of European Launchers T. Fuhrmann, Airbus Safran Launchers GmbH, DE	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
16:40	3124875 Current Status of NASA Evolutionary Xenon Thruster - Commercial (NEXT-C) G. Schmidt, NASA - Glenn Research Center, US	3124625 Magnetically Shielded Low Power Hall Effect Thruster T. Misuri, SITAEL, IT	3125284 Research on Electric Propulsion at ONERA D. Packan, ONERA, FR	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	3125219 Numerical Simulations of Flowfield and Combustion in Hybrid Rockets D. Bianchi, University of Rome "La Sapienza", IT	3125304 Architecture of a new Vega 3rd stage M. Genito, ELV, IT	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
17:00	3125250 Testing Activities of a Radio Frequency Mini Ion Engine for the Next Generation Gravity Missions "NGGM" A. Mingo, Transmit GmbH, DE	3124751 Development of a Compact Hall Thruster with a C12A7 Low Power Cathode M. Tajmar, TU Dresden, DE	3124734 Heater Chip with Different Microchannels Geometries for a Low Pressure Free Molecular Micro-Resistojet D. Cordeiro Guerrieri, TU DELFT, NL	3124920 High Performance Green Propulsion - On the Way for Three Launches from Three Continents K. Anflo, ECAPS, SE	3124974 Biglobal Stability Analysis of the Oscillatory Taylor-Culick Flow Using the Multiple Time Scale Method P.J. Liu, Northwestern Polytechnical University, CN	3125228 Hybrid Propulsion: Potential Applications & Technical Challenges A. Lecossais, Airbus Defence & Space, FR	3124708 Recent Developments in the Demonstration Project for Technologies of a new Storable Propellant Upper Stage Application A. Goetz, Airbus Safran Launchers GmbH, DE	3124888 Experimental and theoretical analysis on compressible axisymmetric jet response to excitation H. Gu, Institute of Mechanics, C A S, CN
17:20	3124928 A 17.8-GHz Microwave Electrothermal Thruster for CubeSats and Small Spacecraft M. Micci, Penn State University, US	3124942 HPGP® a Flight Proven Technology Selected for Multiple LEO Missions M. Persson, ECAPS, SE	3125166 Lateral blowing impact on corner vortex shedding in solid rocket motors L. Lacassagne, Cerfacs, FR	3124985 Control of Low Frequency Combustion Instability in Hybrid Rocket Engine C. Lee, Konkuk University, KR	3125029 VINCI®, the European reference for Ariane 6 upper stage cryogenic engine J.M. Sannino, Airbus Safran Launchers, FR	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		
17:40	3124643 Development of a 400 N HDPE/HTP hybrid rocket motor G. Roberts, University of Southampton, UK	3125020 Unsteady pressure phenomena encountered in turbomachinery rotor/stator cavities T. Bridel-Berthoumeu, CEFACS, FR	3125135 Achieving long duration and constant thrust with hybrid rocket combustion chamber for spacecraft application J.Y. Lestrade, Onera, FR	3124951 Status of FLPP Propulsion Demonstrators –Technology Maturation, Application Perspectives K. Underhill, European Space Agency, FR	3125081 An Experimental and Numerical of a Vortex Injection Liquid Rocket Engine J.J. Marlow, Kingston University, UK			
18:00	END OF DAY 2							

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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Wednesday May 4th, 2016

ROOM									PLENARY SESSION - TIZIANO								
<p>08:30</p> <p>KEYNOTE SPEECH: ARIANE 6 PROGRAMME STATUS Stefano BIANCHI, Head of the Launchers Development Programmes, ESA</p>																	
Session 25 - SC - GIEs (2)		Session 26 - SC - HET (3)		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	BRAMANTE 1		BRAMANTE 2		BRAMANTE 3		BRAMANTE 4		BRAMANTE 5		BRAMANTE 6		BRAMANTE 7		BRAMANTE 8		
Chairpersons	H. Leiter, Airbus DS, DE		D. Estublier, ESA T. Misuri, Sitael, IL		B. Wollenhaupt, OHB Systems, DE M. Onofri, University of Rome, IT		S. Hyde, ESA		D. Boury, Safran herakles, FR J. Pichillou, CNES, FR		J. Gertsmann, DLR, DE A. Passaro, ESA		K. W. Naumann, Bayern Chemie, DE		U. Palmnäs, Volvo, SE M. Peukert, OHB Systems, DE		
09:00	3125045 Double-sided ion thruster for contactless space debris removal D. Mantas, University of Southampton, UK	3124890 Design and characterization of a 200W low power Hall thruster in "magnetic shielding" and "wall less" configurations L. Grimaud, ICARE - CNRS, FR	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	3124933 S4 development status and demonstration test results J. Deck, Airbus DS GmbH, DE	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	3125352 Study of plasma parameters in gas discharge chamber of RF ion thruster with a flat coil enhanced with ferrite P. Mashero, RIAME, RU	3124911 A method to suppress the boundary of mode transition in Hall Thrusters L. Han, Harbin Institute of Technology, CN	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	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	3124944 Erosion Reduction Measures in Anode Layer Type Hall Thruster T. Schönherr, The University of Tokyo, JP	3125035 Progress in Lifetime Test of HEMP-T 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	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					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 Manufacture of Bi-Propellant Injector Head D. O'Sullivan, Moog Dublin Limited, IE
10:30	COFFEE BREAK																

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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Wednesday May 4th, 2016

	Session 33 - SC - GIEs (3)	Session 34 - SC - HET (4)	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	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8
Chairpersons	S. Gabriel, Mars Space, UK A. Demaire, OHB Systems, SE	J. Gigou, ESA	D. Felli, ESA	M. Peukert, OHB Systems, DE F. Valencia Bel, ESA	G. Vigier, Airbus Defence and Space, FR J Steellant, ESA	U. Palmnäs, GKN Aerospace, SE	S. Aknouche, GKN Aerospace, SE	S. Soller, Airbus Safran Launchers, DE J Breteau, ESA
11:00	3125354 Measurement and numerical calculation of temperature in Radio-Frequency Ion Thruster K. Kruglov, RIAME MAI, RU	3124912 The magnetic field strength measurement in an Xe plasma using Faraday rotation effect L. Han, Harbin Institute of Technology, CN	3124826 Towards standardisation of the EP testing and qualification D. Felli, 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	3125309 VINCI Engine Composite Nozzle Extension for Ariane 6 H. Coperet Airbus Safran Launchers, FR	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	3124730 Analytical and Computational Modeling of Inductively Coupled Plasmas for an Application to the RF Ion Thruster V. Nigmatzyanov, Moscow Aviation Institute (MAI), RU	3124994 Hall-effect thruster virtual lab F. Taccogna, Cnr, IT	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	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	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	3124922 Plasma Modelling of a Micro Newton RIT 2.5 R. Henrich, Justus Liebig University of Giessen, DE	3125065 Hybrid Simulation of Magnetic Field Effect in the Plume of a Hall Thruster M. Choi, University of Michigan Ann Arbor, US	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		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	3125355 Simulation of ion thruster electrodes temperature deformation A. Mogulkin, RIAME MAI, RU	3124925 Hollow Cathodes Development at Sitael S.p.A. D. Pedrini, Sitael S.p.A.	3124791 Improvements of the advanced electric propulsion diagnostics platform C. Bundesmann, Leibniz-Institute of Surface Modification, DE	3124916 Cost optimization and qualification of 20N monopropellant thruster type CHT20N-3 U. Gotzig, Airbus DS GmbH, DE		3124950 Investigation of flow behavior in a cold flow C/C-SiC nozzle C. Génin, DLR, 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 O. Safin, 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	3124614 High-precision power measurement for accurate characterization of RF ion thrusters J. Simon, TH Mittelhessen, DE	3125335 Vega Electric Propulsion System for Nano-Satellite Constellation Deployment S. Galluchi, ELV S.p.A, IT	3124997 Qualification of the AEPD system as a Standard On-ground Tool for Electric Propulsion Thrusters – Status and Perspectives F. Scortecchi, Aerospazio Technologie srl, IT	3125108 Investigation of the catalyst degradation mechanism for monopropellant thruster M. Naoki, IHI aerospace, JP		3124780 C/C-SiC Nozzle for a Long Burn-Time Hybrid Rocket: Design and Optimization, Manufacturing and Testing M. Faenza, Nammo Raufoss, NO	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							
ROOM	PLENARY SESSION - ROOM TIZIANO							
14:00	<p>PLENARY ROUND TABLE: ADDITIVE LAYER MANUFACTURING</p> <p>Moderator: Jérôme BRETEAU, Head of Future Launchers Preparatory Programme, ESA Filomeno MARTINA, Cranfield University Laurent PAMBAGUIAN, ESA Materials and Processes Elizabeth ROBERTSON, NASA Hubertus LOHNER, Airbus Defence and Space Uif PALMNÄS, Vice President Business Development and Marketing, GKN Aerospace Jeff HAYNES, Aerojet Rocketdyne Marco COCCO, AVIO S.p.A. Domhnall O'SULLIVAN, Moog Dublin Ltd.</p>							
15:30	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST					
Wednesday May 4th, 2016								
	Session 41 - SC -Plasma and Thrusters (1)	Session 42 - SC -HET(5)	Session 43 - EP testing (2)	Session 44 - SC -Propulsion Components MEMS	Session 45 - Advanced Hybrid Concepts	Session 46 - ST - Testing (1)	Session 47 - ST - Green&New Propellants (2)	Session 48 - Propulsion components (1)
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8
Chairpersons	F. Paganucci, Univ. of Pisa, IT	D. Packan, ONERA, FR A. Gabrielli, ASI, IT	W. Johnson, NASA, US N. Wallace, ESA	T.A. Gronland, NanoSpace, SE A. Cervone, TU Delft, NL	T. Shimada, JAXA, JP	D. Suslov, DLR, DE	J.F. Guery, Europropulsion, FR F. Valencia Bel, ESA	U. Gatzig, Airbus DS, DE
16:00	3125002 Numerical Simulation of ADD SIMP-LEX Pulsed Plasma Thruster Based on a Modified Electromechanical Model X. Liu, University of Stuttgart, DE	3125099 Test of a Dual-Mode Hollow Cathode for Hall Effect Thrusters M. Coletti, Mars Space Ltd, UK	3125007 Vibration Isolation System for Micro-Newton Thrust Measurements E. Bosch Borrás, European Space Agency, NL	3125005 State space modeling of fluid flow for thrust control in MEMS-based micropropulsion M.A. de Alhayde Costa e Silva, Cervone, Delft University of Technology, NL	3124677 Analysis and Preliminary Design of a Hybrid Propulsion Lunar Lander C. Schmierer, Deutsches Zentrum für Luft- und Raumfahrt, DE	3124991 Investigation of pressure hammer with wire mesh sensors and high speed imaging techniques T. Traudt, DLR Lampoldshausen, DE	3124793 Alkali metal-water combinations as rocket engine propellant: experimental assessment for their capability T. Hiraiwa, JAXA, JP	3124827 Transfer function identification of POGO system device A. Simon, CNES, FR
16:20	3125062 Development of a numerical model for the optimization of pulse plasma thrusters performance S. Ciaralli, Mars Space Ltd, UK	3125116 An EcosimPro Model of a Power Processing Unit for a Low Power Hall Effect Thruster A. Sollazzo, 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	3125151 Miniaturised components for satellite propulsion using MEMS technology T.A. Gronland, NanoSpace, SE	3124750 Effect of Fuel-to-Oxidiser Ratio on Thrust Generation of a Hybrid AI + NaOH + H2O Propulsion System for CubeSat Applications O.D. Ahmed, University of Surrey, UK	3125317 Experimental Study of a Laser Ignited Advanced Porous Injector (API-) Thruster Configuration M. Börner, DLR, DE	3125000 Hydrogen Generation by Aluminum-Water Reaction for Propulsion J. Zhang, Dalian Institute of Chemical Physics, CN	3124731 The Evolution of the Ariane 5 Attitude Control System SCA for the Galileo Launcher & Mission D. Welberg, Airbus DS GmbH, DE
16:40	3125014 Maiden tests of the HPT05 Helicon Plasma Thruster Prototype M. Merino, Universidad Carlos III de Madrid, ES	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	3125122 Assembly and Commissioning of an Electrostatic Probe for the Plume Characterization of an Arcjet B. Gäföler, Institute for Space Systems, University of Stuttgart, DE	3124766 Three-dimensional lithography for the microfabrication of colloid emitters T. Henning, Justus Liebig University, DE	3124745 Numerical Simulation of an Isochore Combustion Chamber for Hybrid Rocket Propulsion F. Barato, Università di Padova, IT	3124761 Wet-Priming Test Campaign with Live Propellant Hydrazine and Analysis Correlation A. Pasquier, OHB System, DE	3125258 AlH3-based solid propellant development and characterization in GRAIL H2020 project F. Maggi, Politecnico di Milano, IT	3124965 Analytical estimation of electropump supply system application reasonability for liquid rocket engines A. Dibirny, Yuzhnoye SDO, UA
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		3125104 Investigation of orbit raising to GEO with combined chemical/electric propulsion systems Q.H. Le, Institute for Space Systems, DE	3124754 Experimental investigation of Liquid Nitrogen Chilled Two Phase Flow L. Peveroni, von Karman Institute, BE	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	3124667 Study of a Rhenium/Iridium combustion chamber F. Xu, Aerospace Research Institute of Material and Processing Technology, CN
	Session 49 - SC - Plasma and thrusters (2)	Session 50 - SC -HET (6)	Session 51 - EP subsystems - Neutraliser (1)	Session 52 - ST - Cost Related Aspects	Session 53 - Modelling Chemical Propulsion (3)	Session 54 - ST - Sloshing Experiments (2)	Session 55 - Overview of Current Programs (4)	Session 56 - Propulsion components (2)
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8
Chairpersons	J. Schein, Univ. of Bundeswehr, DE M. Merino, Univ. Madrid, SP	K. Dannenmayer, ESA	F. Paganucci, Univ. of Pisa, IT	K. Underhill, ESA	V. Fernandez Villace, ESA	M.R. Vetrano, von Karman Inst., BE T. Langener, ESA	F. Wilson, Aerojet Rocketdyne, US L. Boccaletto, ESA	A. Demaire, OHB Systems, SE M. de Rosa, ESA
17:20	3124719 Aspects of providing the requirements of spacecraft resistance to electro physical space factors O. Gorshkov, Tsmimash, RU	3125333 Experimental Investigations of the Effects of Cathode Coupling Voltage on Thruster Efficiency Considering the Magnetic Field Separatrix N. Turan, Bogazici University, TR	3125366 Heaterless Hollow Cathode Technology - A Critical Review D. Lev, Rafael, IL	3125121 The long term space transportation cost forecast from the perspective of launch capability and GDP per capita D. Goto, JAXA, JP	3125076 Investigation of orbit correction via pulses generated by a small thruster ejecting a weight A. Gany, Technion – Israel Institute of Technology, IL	3124996 Cryo-Laboratory for Test and Development of Propellant Management Technologies J. Gerstmann, DLR Institute of Space Systems, DE	3125142 CIRA Roadmap for the Development of Liquid Propulsion Test Facilities N. Favalaro, C.I.R.A., IT	3125290 Development of High Pressure Fluid SMD Components H.P. Harmann, AST Advanced Space Technologies GmbH, DE
17:40	3125283 Initial Mapping of Steady State Applied-Field Magnetoplasma Dynamic Thruster SX3 A. Boxberger, Institute for Space Systems, University of Stuttgart, DE	3125367 Power Deposition in Co-Axial Hall Thrusters D. Lev, Rafael, IL	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	3124611 Cooperative Development of L75 LOX Ethanol Engine: Current Status with Focus on Capacitive Chamber Testing D. Almeida, Instituto de Aeronautica e Espaco, BR	3125379 Solar Orbiter Purge System: Modelling with Ecosim M. Marchionni, N. Croisard, Airbus Defence and Space Ltd, UK
18:00	3124913 Development and validation of a 2D wave-plasma code for Helicon Plasma Thrusters B. Tian, Universidad Carlos III de Madrid, ES	3124921 NanoFEEP – Highly miniaturized FEFP propulsion system for attitude and orbit control of CubeSats D. Bock, TU Dresden, DE	3125218 Influence of Power throughout Heaterless Hollow Cathode Ignition A. Daykin-Iliopoulos, University of Southampton, UK		3124788 Turbulence Modelling and Cavitation Dynamics 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	3125262 NASA's Evolvable Cryogenics (eCryo) Project M. Meyer, NASA Glenn Research Center, US	3125247 Electronic Pressure Regulator for Liquid Propulsion Rockets P. Tatiosian, CNES, FR
18:20	END OF DAY 3							
19:30	DEPARTURE / Shuttle from Marriott Hotel or Holiday Inn Hotel							
20:30 23:30	GALA DINNER / Villa Miani							

SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST
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Thursday May 5th, 2016

PLENARY SESSION - TIZIANO								
08:30	KEYNOTE SPEECH: MOVIE STARS, WHAT IS BEHIND SCIENCE FICTION? Roberto BATTISTON, President, Italian Space Agency (ASI)							
	Session 57 - SC - Plasma Thrusters (3)	Session 58 - SC - HET (7)	Session 59 - EP testing (3)	Session 60 - SC - Green Propulsion for Spacecraft (2)	Session 61 - Pressure-Thrust Oscillation Issues (2)	Session 62 - ST - Propulsion Components: Nozzles (2)	Session 63 - EP subsystems - Electronics	Session 64 - Flight testing and experience
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8
Chairpersons	M. Lau , OHB Systems, DE	M. Andreucci, ALTA S.p.A., IT	F. Scortecci, Aerospazio, IT	A. Iannetti, CNES/DLA/SDT/, FR	J. Anthoine, ONERA, FR Gilles Vigier, Airbus DS, FR	F. Nasuti, University of Rome, IT	D. Greuel, ESA / ESTEC	F. Betti, AVIO S.p.A., IT
09:00	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	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	3124918 Advancing the ADN-Based Monopropellant Thruster Family for Space Flight K. Anflo, ECAPS, SE	3125298 Vorticity Patterns, Sound Generation, Pressure and Thrust Oscillations in Aft-Finocyl SRM E. Cavallini, Sapienza University of Rome, IT	3124657 / 3124818 ARIANE 5 MPS ARTA 6 FIRING TEST F. Dufour / G. Mastrangelo Herakles, FR / EUROPROPULSION, FR	3125321 Finmeccanica capabilities in Electronics and Components for micro-Propulsion A. Polli, Finmeccanica, 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	3124983 Development of an engineering optimization tool for miniature Pulsed Plasma Thrusters I. Golosnoy, University of Southampton, UK	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 ion thrusters like μ N-RIT P. Köhler, 1st physics institute, DE	3124923 Towards satellite Propulsion with HAN-Based Green Monopropellants J. Liu, Shanghai Institute of Space Propulsion, CN	3125299 Ignition Transient Analysis of a First Stage SRM of VEGA-C Launch Vehicle E. Cavallini, Sapienza University of Rome, IT	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	3124813 Power Processing Unit Activities at Thales Alenia Space Belgium (ETCA) E. Bourguignon, Thales Alenia Space Belgium, BE	3124792 Enhancement of thermal propellant gauging accuracy based on wide application in-flight experience B. Busset, Airbus Defence and Space Satellites, FR
09:40	3125054 Design and Test of a Cylindrical IEC Prototype Thruster D. Petkow, Gradel sárl, LU	3125288 EMI Dependence on Facility Chamber Pressures using the SPT-140 DM4 Hall Thruster R. Spektor, The Aerospace Corporation, US	3125057 Electromagnetic Emissions from the Fakel SPT-100 Thruster Measured in the New Aerospazio EMI Test Facility F. Scortecci, Aerospazio Technologie srl, IT	3124774 Hot Firing of a N2O/C2H4 Premixed Green Propellant: First Combustion Tests and Results L. Werling, DLR - German Aerospace Center, DE	3125300 Vorticity Driven Pressure Oscillations during Quasi-Steady State of a First Stage SRM of VEGA-C Launch Vehicle E. Cavallini, Sapienza University of Rome, IT	3125162 Original concept of petal extendible nozzle, with composite flaps G. Cotrait, Safran Herakles, FR	3125086 Optimized 5 kW PPU for Gridded Ion Engine J. Palencia, Airbus DS, ES	3124919 Concluding a 5 year In-Space Demonstration of an ADN-Based Propulsion System on PRISMA K. Anflo, ECAPS, SE
10:00	3125279 Pulsed Plasma Thruster as a technology demonstrator on PEGASUS C. Scharfmann, University of Applied Sciences Wiener Neustadt, AT	3125322 Global Model Based Development of a Hall Type Electric Thruster Using 12 Propellant K. Katsonis, Dedalos Ltd, GR	3125058 The Aerospazio's Lifetest Facilities and Diagnostics Tools for the HEMPT Qualification Programme F. Scortecci, Aerospazio, I	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	3125230 Portable system for accurate unsteady pressure oscillations measurement in a middle scale SRM demonstrator J. Anthoine, ONERA - The French Aerospace Lab, FR	3124777 ARIANE 6 & VEGA-C Programs - The P120C SRM Nozzle E. Gautronneau, Airbus Safran Launchers, FR	3124852 Design and qualification of the PPU MK3 for 5 kW hall effect thrusters S. Frasel, Thales Alenia Space Belgium, BE	3125117 The Propulsion Qualification Model for the Orion ESM Propulsion Subsystem D. Kajan, Airbus Defence and Space GmbH, DE
10:20	3125339 Pulsed Plasma Thruster with Non-Volatile Propellant: The Way Forward S. Barral, QuinteScience, PL	3125326 Evaluation of Electron Emission Characteristics on Radio Frequency Plasma Cathode for Hall Thruster M. Ichimura, Tokyo Metropolitan University, JP	3125169 Real Time Dynamic Beam Mapping with a Segmented Collector A. Reissner, FOTEC, DE	3125064 Research on 1N Monopropellant Thruster Using Hydrogen Peroxide for Small Satellites Q. Lin, Shanghai Institute of Space Propulsion, CN	3124820 POD-X: SRM Pressure Oscillation Demonstrator G. Mastrangelo, EUROPROPULSION, FR	3124853 A new nozzle contouring concept M. Frey, Airbus DS, DE	3124852 Electric Propulsion activities in Airbus DS N. Wagner, Airbus DS, DE	
10:40	COFFEE BREAK							

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST										
Thursday May 5th, 2016													
	Session 65 - SC -Plasma Thrusters (4)	Session 66 - EOL Issues and Debris Management	Session 67 - EP testing (4)	Session 68 - SC - Green Propulsion for Spacecraft (3)	Session 69 - Modelling Chemical Propulsion (4)	Session 70 - Test Facilities (1)	Session 71 - Microgravity Propellant Modelling & Test (1)	Session 72 - Future Space Transportation					
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8					
Chairpersons	E. Ahedo, Univ. Madrid, SP S. Weis, Thales Deutschland, DE	M. Peukert, OHB Systems, DE	K. Underhill, ESA	A. Gernoth, ESA	C. Koppel, Kopoos, FR M. de Rosa, ESA	D. Greuel, ESA / ESTEC	A. Passaro, ESA M. Pessana, Thales Alenia Space	A. Herbertz, ESA					
11:10	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	3124676 Far-Field Beam Diagnostics at DLR's EP Test Facility A. Neumann, DLR German Aerospace Center, DE	3124715 Development of a high-performance hydrogen peroxide monopropellant thruster for launcher applications J.E. Rønningen, Nammo Raufoss, NO	3124632 Final test campaign on fluidic mock-up for Exomars EDM propulsion design validation (with hydrazine) F. Laverty, 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	3125323 Cryofenix (Cryogenic sounding rocket experiment) results S. Bianchi, Air Liquide Advanced Technologies, 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	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. Smirnova, TransMIT GmbH, DE	3125100 Local Plasma Parameter Measurement in Stationary Plasma Thruster M. Titov, Zhukovskiy National Aerospace University, "KhAI", UA	3125136 Development of a catalyst for highly concentrated hydrogen peroxide J.Y. Lestrade, Onera, FR	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	3125272 An Improved Approach for Measurement of Liquid Surface Tension and Contact Angle with Application to Propellants D. Kirk, Florida Institute of Technology, US	3125248 Trade offs and design choices for propulsion systems for Lunar exploration R. Schonenborg, Schonenborg Space Engineering BV, NL					
11:50	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	3125047 A marketing commercial approach for identifying the specifications of the satellite decommissioning motors L. Vallini, D-ORBIT, IT	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	3125325 A Systems Approach for the Transition of NASA Missions to Green Propulsion C. Bacha, NASA GSFC, US	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	3124637 Baffle concepts for Center of Mass and Sloshing Control for propellant tanks J. Klatte, Airbus Defense and Space, 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					
12:10	3124945 Liquid and Gaseous Propellant Alternatives for Versatile PPT Operation T. Schönherr, The University of Tokyo, JP	3125008 Make-Safe or Deplete – Propulsion Passivation Ranking M. Lau, OHB-System AG, DE	3124674 Magnetic Fields and Ion Thruster Beam Effects in DLR's EP Test Facility A. Neumann, DLR German Aerospace Center, DE	3125088 Development of a Satellite Propulsion Components for Using Hydrogen Peroxide Propellant K.C. Tseng, National Space Organization, TW	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	3124823 Numerical simulations of liquid hydrogen behavior in cryogenic tanks under microgravity conditions F. Mathey, Air Liquide, FR	3125378 / AP2 SLS Evolution for future Missions S. Creech and C. Crumbly, NASA, US					
12:30		3125181 The Satellite Sweeper Approach for the Solution of the Space Debris Problem P. Pergola, Sitael, IT	3124679 Measurement of plasma parameters within the discharge channel of a Halo thruster T. Wantock, University of Surrey, UK	3124833 Investigation of Hypergolicity of Liquid Fuels with White Fuming Nitric Acid H. Esiyok, Roketsan Missile Industries, TR	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	3125338 Passivation Valve for Satellites Propulsion System M. Zaberchik, Rafael, IL						
12:50	LUNCH												

Thursday May 5th, 2016

ROOM									PLENARY SESSION - TIZIANO								
<p align="center">PLENARY ROUND TABLE LOX-METHANE Moderator: Marc VALES, Head of Future Programmes, Airbus Safran Launchers Gerhard HAGEMANN, Director of Propulsion and Equipment - Acting, Airbus Defense & Space Marcello ONOFRI, Professor, Director of CRAS, University of Rome "La Sapienza" Stefan SCHLECHTRIEM, Director, DLR Fred WILSON, Director, Business Development, Aerojet Rocketdyne Mikhail RUDNYKH, AVIO S.p.A. Yuzhnoye</p>																	
15:50																	
Session 73 - EP Propellant Management (1)		Session 74 - RAM-EP		Session 75 - EP subsystems - Neutraliser (2)		Session 76 - SC - Green Propulsion for Spacecraft (3)		Session 77 - ST - LOX / CH4 Propulsion (2)		Session 78 - ST - SRM (2)		Session 79 - Overview of Current Programs (5)		Session 80 - ST - Propulsion Components: Combustion Chambers (2)			
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8									
Chairpersons	S. Weis, Thales Deutschland, DE	E. Bosch Borrás, ESA	S. Gabriel, Mars Space, UK N. Kutufa, ESA	A. Musker, Deltacat, UK	J. Hardi, DLR, DE	G. Mastrangelo, Europropulsion, FR	J. Longo, ESA O. Verberne, Nammo Raufoss, No	A. Herbertz, ESA S. Hyde, ESA									
16:20	3125316 New component developments for electric propulsion system A. Moureaux, Air Liquide Advanced technologies, FR	3124973 Diagnostics of ABET by Optical Emission Spectroscopy Ch. Berenguer, DEDALUS, GR	3124949 Kinetic modelling of collisionless electron cooling on magnetized plasma expansions S. Correyero, Equipo de Propulsión Espacial y Plasmas (UC3M), SP	3125179 Design and Testing of a 98% H2O2 Pulsed Thruster A. Pasini, Sitael, IT	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	3124895 Controllable Solid Propulsion Technologies for Space Applications P. Caubet, Herakles, FR	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	3125028 RD815 engine preburner demonstrator development A. Kukhta, Yuzhnoye SDO, UA									
16:40	3125194 Electric propulsion system trade-off analysis based on alternative propellant selection V. Giannetti, Sitael S.p.A., IT	3125202 Experimental Validation of a RAM-EP Concept based on Hall Effect Thruster Technology G. Cifali, Sitael S.p.A., IT	3124790 Performance Modelling of a Radio Frequency Plasma Bridge Neutralizer F. Scholze, Leibniz-Institute of Surface Modification, DE	3124684 Realistic Testing of PX1 Catalyst Using Near-Anhydrous Hydrogen Peroxide A. Musker, DELTACAT Ltd, UK	AP4 Foundational Methane Propulsion Related Technology Efforts, and Challenges for Applications to Human Exploration Beyond Earth Orbit T.M. Brown, NASA, US	3125257 Modeling Alumina Particles Evolution and Break-up in SRM D. Simone, University of Brasilia (UnB) at Gama, BR	3124856 DS2000 Propulsion System, Propellant Loading Service S. Ziegenhagen, AIRBUS DS GmbH, DE	3125107 Regenerative Cooling Performance Analysis of the LE-5B Engine Combustion Chamber H. Negishi, JAXA, JP									
17:00	3125240 Fundamental experiments with liquid propellants for the microwave-discharge ion thruster Y. Nakagawa, The University of Tokyo, JP	3124972 CO2 / N2 Breathing Electric Thrusters for LMOs K. Katsonis, DEDALOS Ltd, GR	3125361 Achievements of SELEX ES PPU and Neutralizer L. Ceruti, Selex ES, IT	3124845 Pyroshock testing of high-strength hydrogen peroxide L. Krogstie, Nammo Raufoss AS, NO		AP3 SLS Booster Development Status A.Priskos, NASA, US	3124816 HF Combustion Stability - Research Activities in Germany R. Kaess, Airbus Defence and Space, DE	3124639 Comparison of Oxygen-Hydrogen Combustion Visualisation Techniques Under Representative Conditions S. Webster, DLR, DE									
17:20	3124736 Diamondoids as alternative propellants for ion thrusters K. Holste, Justus-Liebig-University Giessen, DE	3124981 Various Propellants applied to an IPG for an Air-Breathing Electric Propulsion System F. Romano, Institut für Raumfahrtssysteme (IRS), University of Stuttgart, DE	3125365 Cathode Test Facility at Rafael D. Lev, Rafael, IL	3124770 Development of Metallic Foam Monolithic Catalysts for Green Monopropellants Propulsion A. Shchetkovskiy, Plasma Processes, LLC, US		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	3124716 Nammo Raufoss Space Group O. Verberne, Nammo Raufoss, NO	3124891 Hot-fire Testing of Development Booster Engine for H3 Launch Vehicle D. Watanabe, JAPAN, JP									
17:40	3125198 Development of an Electronic Pressure Regulation System with Proportional Control Valve for Xenon-fed Electric Propulsion Systems P. Boyle, Marotta Controls, US	3125269 Water "In-Space" Electrical Propulsion System For Future Deep Space Mission N. Yuichiro, Splije L.L.C, JP	3124975 Evaluation of Optical Tomography technique for EP system assessment. Y. Babou, Universidad Carlos III de Madrid, ES	3125071 Development of a Satellite-Level Propulsion System by Using Hydrogen Peroxide Propellant T.C. Kuo, National Space Organization, TW		3125027 Analytical Techniques For Structural Analysis of Solid Rocket Motors Y. Erturan, Roketsan AS, TR	3124885 Overview of the Euclid Reaction Control System and Micro Propulsion Feed Assembly R. Delanoë, OHB Sweden, SE	3124943 Development of a direct spark ignition system for restartable upper stage engines R. Matthijssen, Aerospace Propulsion Products BV, NL									
18:00		3125078 Impact of Dielectric Separation on Transition Point and Accessible Flow Enthalpy of Inductive Plasmas A. Chadwick, University of Adelaide, AU				3124886 P120C Solid Rocket Motor: the common propulsive module for next generation European Launch Vehicles M. Cutroni, Europropulsion, FR	3124697 HYPROGEO project technical challenges and coordination A. Lecossais, AIRBUS Defence and Space, FR	3124796 Experimental Investigation and Analysis of Catalyst for Hydrogen Peroxide Based Thrusters R.-J. Koopmans, FOTEC GmbH, AT									
18:20																	
END OF DAY 4																	

	SPACECRAFT	SPACE TRANSPORTATION	GENERAL INTEREST															
Friday May 6th, 2016																		
	Session 81 - EP Propellant management (2)	Session 82 - Processes and Manufacture (1)	Session 83 -EP New Concepts (2)	Session 84 - SC-Plume Interaction	Session 85 - Modelling Chemical Propulsion (5)	Session 86 - ST - Propulsion Components: Tanks and Lines	Session 87 - SC - Green & New Propellants (3)	Session 88 - ST - Engine Development										
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8										
Chairpersons	H.-P. Harmann, AST Germany, DE	M. Smith, ESA C. Hunter, ESA		M. Onofri, University of Rome, IT	A. Iannetti, CNES/DLA/SDT/, FR	F. Barrier, Europropulsion, FR F. Lillo, AVIO S.p.A., IT	D. Greuel, ESA / ESTEC	M. Vales, Airbus Safran Launchers, FR J. Deeken, DLR, DE										
09:00				3124866 Next generation plume modelling and its impact on S/C design B. Zitouni, OHB, DE	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		3124726 Development of LE-9 engine H. Kawashima, JAXA, JP										
09:20		3125072 Advanced material & manufacturing technologies applied to combustion chamber parts for next generation launcher T. Sebald, Airbus Defence & Space, 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	3124752 Simulation of the Thruster-Spacecraft Interactions between the UWE-4 CubeSat and a NanoFEEP Thruster using SPIS M. Tajmar, TU Dresden, DE	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	3125034 ADN: Production, properties and future perspective H.H. Stenmark, Skifs, Skarstind, Jahansson and Ek, EURENCO Bofors AB, SE	3125052 Nitrous Oxide Ethanol Bi-propellant Rocket Engine & Gas Generator Development and Testing M. Grubelich, Sandia National Laboratories, US										
09:40	3125359 Electronic Pressure and Flow Regulation equipment applied to electric and cold gas propulsion L. Fallerini, Finmeccanica, IT	3125016 TRL5 Development of cryogenic External Tank Insulation (ETI) for Launcher Application W.P. Fischer, Airbus Safran Launchers, DE	3124931 High thrust-over-power electric thruster A. Fruchtmann, H.I.T. - Holon Institute of Technology, IL	3124968 A 3D hybrid code to study electric thruster plumes F. Cichocki, Universidad "Carlos III" de Madrid, ES	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	3125295 Investigations about TMTZ, a prospective future propellant A. Dhenain, CNRS, FR	3124846 Development of LE-5B-3 engine for H3 launch vehicle N. Naoki, Japan, JP										
10:00	3124993 EUCLID Micropropulsion Feed Assembly Pressure Stability Verification M. Pessana, Thales Alenia Space Italia, 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	3125171 Lifetime Testing of the mN-FEEP Thruster A. Reissner, FOTEC, AT	3125212 Preliminary Results of the 3D Hybrid-PIC Plume Model Developed for the Investigation of Electric Thruster-Spacecraft Integration Issues F. Sik, Bogazici University, Turkey	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	3124842 On the quest towards new "Green" ionic liquids to replace hydrazine-based propellants C. Miró Sabaté, University of Lyon, FR	20160129 Additive Manufacturing a Liquid Hydrogen Rocket Engine C. P. Jones, E. Roberts, M. B. Koelbl, C. Singer NASA/MSFC, US										
10:20	3124773 Overview of NASA Iodine Hall thruster propulsion system development T. Smith, NASA Glenn Research Center, US	3124960 Preparation of exo-tetrahydrotricyclopentadiene based high energy density fuels Y. Cong, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, CN	3124800 Novel architecture for an ion-ion plasma thruster D. Renaud, CNRS-ICARE, FR	3124717 Aspects of providing the requirements of spacecraft resistance to electro physical space factors E. Tvedokhlebova, Central Research Institute of Machine Building (TsNIMash), RU	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	3124839 An Overview of the German Gel Propulsion Technology Program C. Kirchberger, German Aerospace Center (DLR), DE	3125260 Low Cost Liquid Propulsion Systems for Launch-, InSpace and SpaceTourism Applications P. Dr. Weuta, WEPA-Technologies GmbH, 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 - Modelling Chemical Propulsion (6)	Session 94 - ST - Testing (2)	Session 95 - Microgravity Propellant Modelling & Test (2)	Session 96 - Advanced Concepts										
ROOM	BRAMANTE 1	BRAMANTE 2	BRAMANTE 3	BRAMANTE 4	BRAMANTE 5	BRAMANTE 6	BRAMANTE 7	BRAMANTE 8										
Chairpersons	Michele Coletti, Mars Space, UK T.A. Gronland, NanoSpace, SE	A. Gabrielli, ASI, IT	P. Bellomi, AVIO S.p.A., IT	D. Perigo, ESA	W. Kitsche, DLR, DE F. Di Matteo, ESA	A. Gernoth, ESA	D.R. Kirk, Florida Institute of Technology, AU	G. Cesaretti, Sitael S.p.A. W. Johnson, NASA, US										
11:10	3125138 Development of a Iodine Feeding System for Electric Propulsion F. Paganucci, University of Pisa, IT	3125031 The biggest Carbon-Epoxy solid rocket motor case demonstrator ever made M. Forzan, Airbus DS, FR	3124753 Cryosat-2 Propulsion System Model F. Di Matteo, ESA/ESTEC, NL	3124805 Modelling of the cyclic and viscoplastic behavior of a copper-base alloy using Chaboche's model W. Bouajila, DLR Lampoldshausen, DE	3125155 Parametric Study of an Expander Bleed Engine Performance M. Leonardi, La Sapienza, IT	3124692 POGO Unstationnary Cavitation Modelling of Space Rocket Turbopumps Based on Water Tests S. Muller, Airbus Defence and Space, BE	3125044 Dynamic Contact Angle Model with a VOF Method within OPENFOAM H. Scheuffler, DLR, DE	3124617 Elements of United Physics for Aerospace Propulsion, Radiative Medium Motion and Intellect Background with Experimental Confirmations M. Ivanov, Central Institute of Aviation Motors, RU										
11:30	3125285 Combined Nuclear Thermal and Electric Propulsion for Mars Mission B. Claudio, United Technologies research Center, USA	3125185 Filament wound solid rocket motor vessels strain measurement and potential SHM monitoring through fiber optics G. Fabbi, AVIO S.p.A, IT	3125208 Stable Operation and Lateral Thrust Measurement of an Adjustably-designed Solid Micro-thruster for a Cubesat J. Asakawa, The University of Tokyo, JP	3124624 Thermal Model Recognition for Propellant Gauging on SpaceBus 4000 platform I. Antoine, Thales Alenia Space, FR	3125156 ESPSS Model of a Simplified Combined-Cycle Engine for Supersonic Cruise J. Moral, EAI, ES	3125351 Experiments on water hammer induced by fast opening valve during priming; effect of gas desorption M. Lema, University of A Coruña, ES	3124909 Boiling Flow of Liquid Nitrogen in Complicated Channels under Low-gravity Condition T. Himeno, University of Tokyo, JP	3125172 Water ACS for Orbital Vehicle D. Fiot, AIRBUS DS - ASL, FR										
11:50	3125293 Spacecraft charging and system impacts induced by a Helicon Plasma Thruster analysis A. Pileri, UNIRM, IT	3124964 Synthesis of Twin Screw Process Demonstration Technology Activities For Solid Propulsion S. Saint Martin, Herakles (Safran), FR	3124932 Fluidic passivation system minimizing the force and torque on a satellite (example of CNES' Microscope mission) G. Boudier, CNES, FR	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	3124979 Implementation and Evaluation of an unsteady friction model in the numerical simulation of water hammer C. Bombardieri, DLR, DE	3124870 Laser-Induced Breakdown Spectroscopy of Gas Compositions for Equivalence Ratio Determination in Space Propulsion R. Stützer, German Aerospace Center, DE	3125350 A CFD Numerical tool for the prediction of cryogenic propellant behavior in spatial launchers F. Mathey, Air Liquide, FR	3125049 VTVL Technology Demonstrator Vehicle for Planetary Landers J. Macfarlane, Airborne Engineering Limited, UK										
12:10		3125375 New horizons for SMA (Shape Memory Alloy) in space propulsion applications O. Livne, RAFAEL, IL		3124647 Numerical Investigation of Two Interacting Parallel Thruster-Plumes M. Grabe, DLR - German Aerospace Center, DE	3124829 Extended gas generator cycle W. Kitsche, DLR, DE	3124712 Response of a reacting cryogenic oxygen jet to transverse acoustic forcing J. Hardt, 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	3124618 LENR theory and application to aerospace power plant M. Ivanov, Central Institute of Aviation Motors, RU										
12:30		3125303 Advanced developments in carbon fiber prepreg production: towards new low cost and high performance materials for the Next generation of European Launchers E.A. Squeo, AVIO S.p.A., IT		3125080 Internal Ballistic Design Optimization of Solid Rocket Motors with Direct Search Method. S. Acik, ROKETSAN A.S, Turkey		3124880 An Investigation of Nitric Acid Hypergolicity with Lithium Aluminum Hydride and Paraffin Wax Fuels K. Stober, Stanford University, US	3124908 Numerical Prediction of Liquid Nitrogen Line Chill-down Processes by Direct Interface Tracking Approach Y. Umemura, JAXA, JP	3124772 Development of a Modular Propulsion Unit for Small Satellite Applications M. Poucet, Moog Inc., BE										
12:50 13:30	LUNCH																	
13:30	DEPARTURE FOR TECHNICAL VISIT																	
14:30 17:30	TECHNICAL VISIT / AVIO S.p.A. Colleferro																	
18:30	END OF SPACE PROPULSION CONFERENCE																	