

**PRELIMINARY
PROGRAMME**

**10TH EDITION OF THE
SPACE PROPULSION
CONFERENCE**

3AF
Association Aéronautique
et Astronautique de France

20
S P A C E
PROPULSION
26

18-21 MAY 2026
BARI • ITALY

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16:00	Early registration
18:00	

MONDAY 18 MAY 2026 // DAY 1

08:00	REGISTRATION AND WELCOME COFFEE
	PLENARY SESSION
09:45	WELCOME ADRESSES : 3AF/ ASI / Regione Puglia
10:30	CONFERENCE INTRODUCTION : Jamila MANSOURI, ESA - Jean-François GUERY, ArianeGroup - Giorgio SACCOCCIA, 3AF Conference co-chairs
10:45	ROUND TABLE #1 : The future of Space Propulsion Industry: fulfilling expectations on Programs and policies Moderator : Chiara MANFLETTI, TUM Roberto FORMARO, ASI - Bruno VIEILLE, CNES - Shujiro SAWAI, JAXA - Tommaso GHIDINI, ESA - Susanne HECKRODT, DLR
11:45	ROUND TABLE #2 : Why VLEO Now? Strategic Value, Policy Priorities and Operational Needs Moderator : Chiara PERTOSA, SITAEL Lt. Col. Ferdinando DOLCE, Teledife - Giuditta MONTESANTI, European Commission/DG DEFIS - Bernardo CARNICERO, ESA - Juan Pablo RAMOS, Redwire - Matt GLASCOCK, Exoterra
12:45	LUNCH BREAK
14:00	ROUND TABLE #3 : Launchers and associated infrastructures : New propulsion challenges Moderator : Louis LAURENT, ESA Hervé GILIBERT, ArianeGroup - Francesco BETTI, Avio - Adria ARGEMI, PANGEA - Robin HUBER, Saxavord - Dennis SCAGGIANTE, Novaeka - Stefan BRIESCHENK, RFA
15:00	INTERSESSION

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
15:10	SESSION 01 Solid Rocket Motors 1	SESSION 02 Engines Developpement & Tests 1	SESSION 03	SESSION 04 Program Overviews 1	SESSION 05 Cathodes 1	SESSION 06 Hall Thruster Characterization 1	SESSION 07 Nuclear Propulsion 1	SESSION 08 Electrothermal Thrusters
Chair	Severine LARRIEU - ArianeGroup	Lilian PREVOST - CNES		Markus PEUKERT - OHB System	Alena KITAEVA - SITAEL	Olivier DUCHEMIN - Safran Spacecraft Propulsion	Armin HERBERTZ - ESA	Daniela PEDRINI - SITAEL
15:10 1	719 - Equipped Solid Rocket Block 2 Qualification Fabrice MARTIN - ArianeGroup - France	050 - Hot-Fire Testing of Hydrogen Peroxyde / Kerosene Additively Manufactured Thrust Chamber Fabio KERSTENS - Dawn Aerospace - The Netherlands		063 - GreenRAIM - Promising Green Propellants - A Trade-Off Birk WOLLENHAUPT - OHB System - Germany		111 - Segmented-Anode Hall-Effect Thruster: Thrust-Vectoring with Mass-Flow and Voltage-Bias Actuation Willy STARK - Technische Universität Dresden - Germany	311 - Early Stage Design of Nuclear Thermal Propulsion Systems Vincenzo BARBATO - University La Sapienza - Italy	169 - Experimental Characterisation and Numerical Modelling of a Radiofrequency Inductively Coupled Electrothermal Thruster George SADLER - University of Surrey - United Kingdom
15:30 2	735 - Europe's Largest Solid-Propellant Rocket Motors: from P80 Technologies to P160C Nathalie CESCO - CNES - France	666 - Testing Demonstrators of MPGE Engine for VEGA Launcher Applications Pandolfo Ansano SANI - AVIO S.p.A. - Italy		072 - Green Propulsion System Review, Assessment, Experimental Investigation and Modelling - GreenRAIM - Overview on Progression in Green Monopropellants TILL HÖRGER - Deutsches Zentrum für Luft- und Raumfahrt (DLR) - Germany	494 - Development and Testing of a Modular, Low Current, Heaterless Hollow Cathode for Space Electric Propulsion Leonardo TROISE - Sant'Anna School of Advanced Studies - Italy	156 - Mode Transition of a Magnetically-Focused Hall Thruster Zuolin XU - Harbin Institute of Technology - China	511 - Safety Analyses for Spacecraft with Nuclear Power Systems Eva FOJCIKOVA - ABmerit-nuclear and space - Slovakia	521 - Design of a Microwave Electrothermal Thruster Prototype for Experimental Investigation of Power Loss Mechanisms Michele NAVA - Politecnico di Milano - Italy
15:50 3	585 - P160C Solid Rocket Motor Qualification Maria Luisa FREZZOTTI - EUROPROPULSION - France	407 - Development and Testing of Hydrogen Peroxide - Propane Liquid Bipropellant Rocket Engines at OPUS Aerospace Giulio CORAL - OPUS Aerospace - France		476 - Evolution for Next Generation of Chemical Propulsion Systems_AGG Malte WURDAK - ArianeGroup GmbH - Germany	733 - The Breakdown Phase of a Heaterless Hollow Cathode Stephen GABRIEL - University of Southampton - United Kingdom	399 - Cross-Facility Testing of a Novel Modular Hall Effect Thruster on Krypton Thomas MUNRO-O'BRIEN - University of Southampton - United Kingdom	597 - NASA's Electric Propulsion Development Activities for Space Nuclear Propulsion Applications David MANZELLA - NASA - United States	523 - Investigation of Molecular Propellants Fed Microwave Electrothermal Thruster Through Multi-Temperature Global Models Michele LAURIOLA - Politecnico di Milano - Italy

	SESSION 09	SESSION 10	SESSION 11	SESSION 12	SESSION 13	SESSION 14	SESSION 15	SESSION 16
16:40	SESSION 09 Solid Rocket Motors 2	SESSION 10 Launchers & Programs	SESSION 11 LRE Thrust Chamber Design	SESSION 12 Program Overviews 2	SESSION 13 Experimental Techniques 1	SESSION 14 Lunar Lander Technology	SESSION 15 Development & Qualification of Hall Thruster Systems	SESSION 16 Propellant Storage and Distribution 1
Chair	Fabrice MARTIN - ArianeGroup	Ulf PALMNÄS - Expansion	Yohann TORRES - ESA	Oliver NEUNZIG - TU Dresden	Raffaele VOTTA - ASI	Cedric DUPONT - The Exploration Company	Davina DI CARA - ESA	Preetham MADDALI - Nammo
16:40 1	563 - ARIANE 6 & VEGAC P120C/P160C Nozzle - Flight REX and New Nozzle design evolutions Severine LARRIEU - ArianeGroup - France	218 - Innovations in Propulsion within ESA'S Future Launchers Preparatory Programme (FLPP) - Unlocking European Capabilities Kate UNDERHILL - ESA - France	426 - Design Evolution of a 25 kN LOx-CH4 Thrust Chamber Assembly for Space Transportation Applications Luís REBELO - Omnidea Lda. - Portugal	700 - An Overview of Electric Propulsion Activities at JAXA Ikko FUNAKI - Japan Aerospace Exploration Agency (JAXA) - Japan	192 - Development of Underwater Measurement Techniques for Deployment on a Test Tank Nathan MALLART MARTINEZ - ONERA - France	246 - Ultra-Compact 3D-Printed Heat Exchanger (UC3D-HX) for Methane-Oxygen Engines Dominic TAN - The Exploration Company - France	600 - SITAEL "PULSE 5K" Thruster Qualification and Coupling Test Campaign Results Alena KITAEVA - SITAEL - Italy	652 - An Experiment to Control the Dynamics of Bubbles in Propellant Tanks Aboard a Cryogenic Orbital Payload Lucas LEAL ABADI - UPC - Spain
17:00 2	572 - Impact of ARIANE 6 & VEGAC/E P160C SRM New Design on Pressure oscillations Severine LARRIEU - ArianeGroup - France	427 - Ariane 6 Launcher: from the Complete Success of its First Three Missions towards the Preparation of Next Missions. Cristina COLAIANNI - ARIANESPACE - France	389 - Student Design and Test of an Additively Manufactured CuCrZr Bipropellant Thrust Chamber for the Characterisation of Film Cooling Brandon BRITAIN - University of Sheffield - United Kingdom	713 - Electric Propulsion Activities at ONERA Denis PACKAN - ONERA - France	271 - Performance Measurement of Pulsed Vacuum Arc Thrusters with a Load-Cell-Based Thrust Balance Benjamin KANDA - University of Southampton - United Kingdom	242 - Testing and Validation of the Oxidizer Electric Pump Assembly for the Huracan Engine mario HERNANDEZ - The Exploration Company - France	601 - SITAEL Pulse 1K Performance and Environmental Campaign Results Lucio TORRE - SITAEL - Italy	455 - Development & Optimization of Solenoid Valve for Higher Bus Voltage using Numerical method Savitry KUMARI - LPSC ISRO - India
17:20 3	673 - Simplified Modeling for Solid Rocket Motor Pressure Oscillation: An Industrial Approach for Experimental Data Analysis Mirko TORNESI - AVIO S.p.A. - Italy	538 - CIRA Recent Research Activities on Liquid Propulsion Daniele RICCI - CIRA - Italian Aerospace Research Center - Italy	706 - Combustion Simulation and Validation for a Fuel-rich Subscale Preburner operated with LOX/Methane Jeannine SCHMACKA - German Aerospace Center (DLR) - Germany	385 - Advancing Hydrogen Peroxide Propulsion: CNES's development of H2O2 for Space Applications Pierre LEROUX - CNES - France	773 - Computed Tomography of Electrospray Emitter Arrays: High-Resolution Reconstruction and Diagnosis of Emission Non-Uniformity Maurizio SAGGIANI - IENAI SPACE - Spain	177 - Development and Testing of a GOX/GCH4 Torch Igniter for a Lunar Lander Engine Julian MATT - The Exploration Company - France	691 - Extension of the Operating Range of the PPS*5000 Hall Thruster at 400V and 5kW Olivier DUCHEMIN - Safran Spacecraft Propulsion - France	

17:40	INTERSESSION
17:50	KEYNOTE SPEECH #1 "Full Thrust or False Start? The New Economics of Space Propulsion" - Alexandre NAJJAR, NovaSpace
18:20	END OF DAY 1
19:30	TRADITIONAL DINNER

EXHIBITION

08:00									WELCOME COFFEE									
									PLENARY SESSION									
08:30									KEYNOTE SPEECH #2									
									Landscape of innovative propulsion technologies - Professor Martin TAJMAR, TU Dresden									
09:00									INTERSESSION									
ROOM 1		ROOM 2		ROOM 3		ROOM 4		ROOM 5		ROOM 6		ROOM 7		ROOM 8		ROOM 9		
09:10		SESSION 17 Solid Rocket Motors 3		SESSION 18 Stages & Engine Developpement & Tests		SESSION 19 LRE Thrust Chamber - Cooling		SESSION 20 Catalysts for Green Propellants		SESSION 21 Ignition & Combustion of Chemical Propellants 1		SESSION 22 Propellant Tanks 1		SESSION 23 Field-Emission Electric Propulsion		SESSION 24 Cooling & Materials for Chemical Propulsion		
Chair		Olivier ORLANDI - ArianeGroup		Antoine VILLEFUMADE - ESA		Alexander BEE - DLR		Stephen GOODBURN - Airbus Defence and Space		Ulrich GOTZIG - ArianeGroup		Shumit DAS - ESA		Oliver NEUNZIG - TU Dresden		Cristina GALDAMEZ - URA Thrusters		
09:10 1		617 - Development of a 2D Test Bench for Characterising the Dynamic Response of a Solid Rocket Propellant under Rapid Depressurisation Léo DISTELZWEY - ONERA - France		096 - Optimisation and Design of a 15kN Bi-Liquid Ethalox Rocket Engine for SLM Manufacturing Kenzi GOURDACHE - EPFL - Switzerland		386 - Experimental Investigation of Film Cooling in a Subscale 2D Rocket Combustion Chamber Georg KÜHLWEIN - German Aerospace Center - Germany		612 - Performance and Operational Constraints of a 1 N 98% Hydrogen Peroxide Monopropellant Thruster With and Without the Catalyst Bed Heater Adrian PARZYBUT - Lukaszewicz Research Network - Institute of Aviation - Poland		176 - Ignition Tests of a Hypergolic Green Propellant in a 50 N Thruster at Low Ambient Pressure Konstantin MANASSIS - DLR e.V. - Germany		108 - Design, Development and Qualification of a Propellant tank with hybrid skirt/polar mounting for an end-of-life service spacecraft Johannes UNGAR - Peak Technology GmbH - Austria		106 - Plume shape optimization of the ECLIPSE thruster Laura BETTIOL - FOTEC Forschungs- und Technologietransfer GmbH - Austria		043 - Nb-Alloys, the Next Generation Material for High-Temperature Applications in space Bahar FAYYAZI - TANIOBIS GmbH - Germany		PUGLIA REGION - WORKSHOP
09:30 2		425 - Laser-Initiated Ignition of Composite Solid Rocket Propellants at Atmospheric Pressure: Ignition Threshold and Delay Time Philip PIETREK - Fraunhofer-Institut für Chemische Technologie (ICT) - Germany		667 - Development and Status of MPGE Program Elisa DEPAOLIS - AVIO S.p.A. - Italy		414 - Experimental Investigation of Thin Liquid Films in Hot Stream Flows for Liquid Rocket Propulsion Federico GIAMBELLI - Politecnico di Milano - Italy		647 - Exploring The Use Of 3D-Printed Gyroid Catalysts For High-Test Peroxyde Decomposition Stefania CARLOTTI - Politecnico di Milano - Italy		325 - Experimentation and Modeling of an Optically Accessible Hypergolic Rocket Engine Justin KRUSE - Purdue University - United States		444 - Light Pressurization – Concept of UV photodissociation for self-pressurization of HTP propellant tanks Christian HESSEL - ArianeGroup GmbH - Germany		270 - Spacecraft interactions and charging in presence of Field Emission Electric Propulsion David KREJCI - Enpulsion - Austria		550 - Conjugated Heat Transfer Simulation of Multiphase Flow in Regenerative Cooling Channels Zain QAZI - DeltaOrbit GmbH - Germany		
09:50 3		152 - Development Status of Laser-Initiated Flight Termination System Seiji ITO - IHI Aerospace - Japan		707 - Design and Mission Performance Assessment of a LEO-to-GEO Transfer Stage Using High-Test Peroxide/RP-1 Propulsion Simon BOTH - Pave Space SA - Switzerland		527 - Silicone Oil Fuel Additives for Regenerative Thermal Barrier Coatings in Liquid Rocket Engine Combustion Chambers Joe LEICESTER - University of Sheffield - United Kingdom				370 - Spectroscopic analysis of hypergolic bipropellant ignition with high-test hydrogen peroxide oxidizer Rose SWEARS - University of Southampton - United Kingdom		720 - Qualification and Acceptance Testing of a Custom Propellant Tank for Hydrogen Peroxide Microsatellite Propulsion System Artur SOKOLOWSKI - Lukaszewicz Research Network; Institute of Aviation - Poland		243 - Indirect Roberval Thrust Balance for the Characterization of Field Emission Electric Propulsion (FEPP) and Electro Spray Thrusters Leo PEIFFER - Dresden University of Technology - Germany		255 - Application and Validation of Transient Fuel Film Cooling Analysis to Hypergolic Thrusters Austin MORSE - Agile Space Industries - United States		
10:10									COFFEE BREAK									
10:40		SESSION 25 Green propulsion		SESSION 26 Engines Developpement & Tests 2		SESSION 27 LRE Thrust Chamber - Modeling		SESSION 28 Green Propellant Thrusters		SESSION 29 Cathodes 2		SESSION 30 Micropropulsion		SESSION 31 Ion Thrusters 1		SESSION 32 Flow Systems for Electric Propulsion		
Chair		Wilhelm DINGERTZ - ECAPS AB		Adrien BOIRON - MaiaSpace		Clara MORRIS - DLR		Birk WOLLENHAUPT - OHB System		Daniela PEDRINI - SITAEL		David KREJCI - ENPULSION		Alexandra BULIT - ESA- ESTEC		Lucio TORRE - SITAEL		
10:40 1		013 - Additively Manufactured Stainless Steel 316L Catalyst Supports for the Catalytic Decomposition of Hydrogen Peroxide Dario MANCA - University of Canterbury - New Zealand		560 - Development Progress of the LOX/CH4 High Thrust Engine for future VEGA evolutions Marco GALEOTTA - ESA - Italy		351 - Large-Eddy Simulation of Liquid Oxygen / Liquid Methane Coaxial Injection under Transcritical Conditions. Audrey KLINGUER - CNRS - France		353 - Design of a Modular 100N Bipropellant Thruster Prototype based on Hydrogen Peroxide and Hydrogen Fabio FARAONI - University of Pisa - Italy		092 - Experimental characterization of diamond-based thermionic emitters for hollow cathodes Aldo MICCIANI - Università di Pisa - Italy		038 - Lifetime Analysis on GAIA Cold Gas Micro Thrusters Francesco MANCINI - Leonardo SpA - Italy		139 - Fast Dynamic Control (FDC) of the Radiofrequency Ion Thruster RIT3.5 for ESA/NGGM Mission Elisa BONELLI - AEROSPAZIO Tecnologie s.r.l. - Italy		172 - AST's Stand-Alone Valve Family for Electrical and Chemical Propulsion Systems Nils HILDEBRAND - AST Advanced Space Technologies GmbH - Germany		PUGLIA REGION - WORKSHOP
11:00 2		122 - Research on the Practical Application of Sustainable Rocket Propellant (SRP) Taisei TAKAOKA - The University of Tokyo - Japan		780 - Status of LOX/Methane Prometheus Engine demonstration Lilian PREVOST - CNES - France		503 - Large-Eddy Simulation of the LE-X Full-Scale Liquid Rocket Engine Combustor Takanori HAGA - Japan Aerospace Exploration Agency (JAXA) - Japan		367 - Qualification Campaign Results of the 2U HTP Propulsion System for 12U CubeSats Shaun DORMON - LMO - United Kingdom		622 - Design and Characterization of a MEMS-Scale Thermionic Cathode Yuheng DENG - University of Southampton - United Kingdom		088 - Development of a Dual-Stage Plasma Accelerator for Enhanced Vacuum Arc Thruster Performance in CubeSat Applications Emil CHRISTIANSEN - University of Southampton - United Kingdom		233 - Improving Microwave Discharge Ion Thruster Performance by Changing the Frequency to 5.8 GHz Maria Lourdes INSINGA - Politecnico di Torino - Italy		508 - Development Status of Next Generation Electric Pressure Regulator for Electric Propulsion Systems Pietro BROGGI - AST Advanced Space Technologies GmbH - Germany		
11:20 3		564 - GreenTEA: Development, Characterization, and Hot-Fire Evaluation of a Green, Metal-Additive-Free, Low-Viscosity Hypergolic Ionic Liquid Florian MERZ - German Aerospace Center (DLR) - Germany		655 - Building Europe's Future Reusable Propulsion Capability: Early Results from the ASTRE Program Miguel MARTIN BENITO - Centre National d'Etudes Spatiales (CNES) - France		504 - Robust Wall-Modeled LES for Accurate Heat Flux Prediction in Rocket Engine Combustors Yasuhito OKANO - Japan Aerospace Exploration Agency (JAXA) - Japan		391 - Testing of Nammo Green bipropellant throttleable engine Bastien HÄMMERLI - Nammo Raufoss AS - Norway		335 - Reconfigurable RF Cathode Operated with Noble Gases and Iodine Lorenzo TONON - University of Padova - Italy		784 - A Micro PPT for Small Satellite Applications Paolo GESSINI - BRAZILIAN SPACE AGENCY (AEB) - Brazil		229 - Concept Development of a Cathodeless Inductively-Coupled Gridded Ion Engine for Very Low Earth Orbit Atmosphere-Breathing Propulsion Pavel SMIRNOV - TransMIT GmbH - Germany		559 - Design and evaluation of a propellant feed system for electric propulsion systems using naphthalene Sveva QUINZII - Sant'Anna School of Advanced Studies - Italy		
11:40 4		292 - Hydrogen Peroxide Operations: Risks, Monitoring, and Good Practices Luca BREGGION - CNES - France		640 - Simulation Refinements of European Reusable Staged-Combustion Rocket Engine SLME Martin SIPPPEL - DLR-SART - Germany		424 - LES Validation and Analysis of Unstable Liquid Rocket Engines at Super- and Subcritical Pressures Giulio PELENGHI - ISAE-SUPAERO - France		207 - Predictive Modeling of Miscibility in N ₂ O-Based Green Propellant Blends Chiara Antonietta PANOZZO - DLR (German Aerospace Centre) - Germany		364 - Design of an Iodine-Compatible RF Cathode via Global Modelling and Electromagnetic Simulations Renwei TAN - University of Padova - Italy		344 - Two-Dimensional Ion Current Density Measurement of the μ 10 Microwave Discharge Ion Thruster Using Multiple Faraday-Probe Doriana CECERE - Politecnico di Torino - Italy		211 - Experimental Evaluation of Lifetime Extension Strategies for Gridded Ion Engines through Modified Propellant Compositions Pavel SMIRNOV - TransMIT GmbH - Germany		703 - Demonstration Test of a Hall Thruster Fed with Cryostored Liquid Argon Olivier DUCHEMIN - Safran Aircraft Engines - France		
12:00 5		731 - Development status of the 200 N green HTP monopropellant RACS thruster. Bastien HAEMMERLI - Nammo Raufoss AS - Norway		287 - Notional Engines for Liquid Rocket Engine Development Alexandre CAPITAO PATRAO - GKN Aerospace Sweden - Sweden		268 - Numerical Simulation of the DLR LUMEN Thrust Chamber: Impact of Small Injection Asymmetry Clara MORRIS - DLR - Germany		587 - Paraffin/HTPB blends for CubeSat propulsion: experimental and numerical performance Marco RIGAMONTI - La Sapienza, University of Rome - Italy						394 - PIC-informed reduced electron model for gridded ion engine plumes Matteo GUAITA - Universidad Carlos III de Madrid - Spain				
12:20									LUNCH									

EXHIBITION

PLENARY SESSION

ROUND TABLE #4 : From Scale to Agility: Competing in the New Era of Orbital Propulsion Manufacturing | Moderator : Jamila MANSOURI, ESA
 Dean MAC BRIDE, Airbus - Alberto GARBAYO, URA Thrusters - Xavier CAVELAN, Safran Spacecraft Propulsion - Marzia MIGLIORELLI, SITAEL - Emily LONGHI, Aerospazio - Yousuke TASHIRO, IHI

INTERSESSION

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8	ROOM 9
13:50	<p>SESSION 33 Reusability</p> <p>SESSION 34 Hybrid Propulsion 1</p> <p>SESSION 35 LRE Thrust Chamber - Manufacturing & Mechanical Behavior</p> <p>SESSION 36 Green Monopropellant Thrusters 1</p> <p>SESSION 37 Magnetoplasmadynamic Thrusters 1</p> <p>SESSION 38 Propellant Storage and Distribution 2</p> <p>SESSION 39 Water Propulsion Systems 1</p> <p>SESSION 40 Manufacturing Techniques & Industrialization</p>								
Chair	Christophe BONNAL - MaiaSpace	Jérôme ANTHOINE - ONERA	Till HÖRGER - DLR	Simone ALFANO - CNES	Merve BALABAN - BERLIN SPACE Consortium	Preetham MADDALI - Nammo	Bertrand KLEIN - ESA	Raffaele VOTTA - ASI	
15:00 1	486 - Thermomechanical Limits and Performance Trade-Offs of Reusable Rocket Engines for First-Stage Reuse Lilly ETZENBACH - Massachusetts Institute of Technology - United States	066 - Testing of a Throttleable Hybrid Rocket Engine using multiple Oxidizer Injections Joël MARTIN - German Aerospace Center - Germany	515 - Additively Manufactured Bimetallic Thrust Chamber: Manufacturing and Preliminary Testing for Next-Generation Launcher Applications Alessandra LOPERFIDO - AVIO - Italy	023 - Formation of a High-Performance Monopropellant Formed of Hydrocarbon-Filled Microcapsules and Hydrogen Peroxide: a Retrospective Robin SCHOLL - German Aerospace Center (DLR) - Germany	060 - Optical Diagnostics on the Plasma Plume of an Argon-Fed Pulsed Magnetoplasmadynamic Thruster Alexandre PERDRAU - CNRS - France	191 - Waterhammer Measurements for H2O2 and Hydrazine in a Linear and Tee Configuration Jouke HUIJKEMA - ONERA - France	018 - Life Quantification Test of the Water Electrolysis Hall Effect Thruster (WET-HET) Freddy BAYLISS - Imperial College London - United Kingdom	011 - Friction Stir Welding of aluminium tanks: safe disposal at the satellite life end and zero-leakage performance. Valentin PECQUEUR - Stirweld - France	
15:20 2	629 - Integrated Engine-Cycle and Structural Modelling for Reusable Liquid Rocket Engines Mateusz GULCZYNSKI - German Aerospace Center - Deutsches Zentrum für Luft- und Raumfahrt (DLR) - Germany	070 - Functionalization of 3D-Printed Reinforcing Structures in Armored Grains for Hybrid Rocket Propulsion Carlo RONTINI - Politecnico di Milano - Italy	383 - Root Cause Analysis of a Cooling Jacket Failure on a 25 kN LOX-CH4 Thrust Chamber Assembly Horacio MOREIRA - Omnidea - Portugal	097 - Development of a Safe and Low-Toxicity Monopropellant Thruster Series Shinji IGARASHI - IHI Aerospace Co., Ltd. - Japan	087 - Thrust Measurement of the Quasi Steady-State Pulsed MPDT of the Modular Pulsed Propulsion System Rune FRITZSCHE - Institute of Space Systems - Germany	194 - Stellar Electric Gear Pump Martin LEDVINKA - Stellar Exploration s.r.o. - Czech Republic	021 - Combined system performance tests of the water electrolysis propulsion system for the small satellite ROMEO Alexandros VIKAS - Institute of Space Systems - University of Stuttgart (IRS) - Germany	055 - Scaling Up Space Propulsion Production: Dawn Aerospace's Journey From Prototype to Serial Manufacturing Fiona LEVERONE - Dawn Aerospace - The Netherlands	
15:40 3	631 - CALLISTO – Reusable Engine and Flight Demonstration Michel ILLIG - CNES - France	117 - Performance Comparison of a Hydrogen Peroxide-Based Hybrid Rocket Engine with Hypergolic and Catalyst-Bed Modules Ahmet Nihat KARCI - University of Southampton - United Kingdom	442 - Thermomechanical Fatigue Testing of Additively Manufactured Combustion Chamber Segments Sebastian SOLLER - ArianeGroup - Germany	280 - Water Hammer in Breadboard Testing for Green Spacecraft Propulsion Systems Utilizing 98% Hydrogen Peroxide Damian GRABOWSKI - Lukasiewicz Research Network; Institute of Aviation - Poland	272 - Preliminary Design and Performance Calculation of a 4.5 kW Applied-Field MPD Thruster Giovanni COPPOLA - The Italian Aerospace Research Centre - Italy	337 - Mass gauging experiment aboard a cryogenic orbital payload Sara Cecilia ABECIA-HERNANZ - UPC-BarcelonaTech - Spain	259 - Testing of a Cathode Vapour Feed Electrolyser and 1N Gaseous H2/O2 Thruster in a Vacuum Test Facility Charles MUIR - European Space Agency - The Netherlands	225 - Additive Manufacturing Solutions for Solar Thermal Propulsion: An Integrated RAC Design Approach Riccardo CAMBERTONI - TU Delft - The Netherlands	
16:00 4	699 - CFD Modeling Challenges for Reusable Launch Vehicle Development Yohan BLACODON - MaiaSpace - France	219 - Estimation of the Optimal Mixture-Ratio Point of a Hybrid Rocket Engine by Spectrometric Analysis of the Exhaust Plume Quentin LEVARD - ONERA - France	536 - Testing of an Additively Manufactured GRCop-42/IN718 LOX/LCH4 Combustion Chamber with Compliant Firewall Iain WAUGH - Airborne Engineering Ltd - United Kingdom	725 - Design Update and Qualification of ECAPS' 100 mN HPGP Thruster and 2U CubeSat Propulsion Module Wilhelm DINGERTZ - ECAPS AB - Sweden	358 - Electrostatic Probe Measurements in the Plume of a Miniature Pulsed SF-MPD Thruster Etienne MICHAUX - CNRS - France	355 - Design and Development of a Propulsion Fluidic Breadboard for the Rosalind Franklin Mission Lander Platform Angus WOODING - Airbus Defence & Space - United Kingdom	430 - Development and In-House Experimental Demonstration of An Optimised Water Electrolysis Hall Effect Thruster Danylo SHCHERBAK - URA Thrusters - United Kingdom	410 - High-temperature alloys for high-performance in-space propulsion applications using Cold Spay Additive Manufacturing – CSAM Jan KONDAS - Impact Innovations GmbH - Germany	
16:20 5	630 - Health Monitoring and Intelligent Control Benchmark for Reusable Liquid-Propellant Rocket Engines Kai DRESIA - German Aerospace Center (DLR) - Germany	545 - Design and Testing of the Propulsion System of a H2O2/ABS Student-developed Hybrid Rocket Nikolai CHISHOLM - Supaero Space Section - France	434 - 25 kN LOX-CH4 Thrust Chamber Assembly Acceptance and Test Campaign João VALE - Omnidea - Portugal		517 - Plasma Plume Mapping of a Low Power Pulsed Magnetoplasmadynamic Thruster Julien SCHEINER - Comat - France		437 - Realising Stoichiometric Hydrogen/Oxygen Combustion with the 1N ICE-1000 thruster for Electrolysed Water Propulsion Danylo SHCHERBAK - URA Thrusters Ltd. - United Kingdom	140 - Development and Evolution of High-Precision Thrust Stands for Electric Propulsion Testing Maximilian ZURKAULEN - DACTEM INTERNATIONAL - France	
16:40	COFFEE BREAK								
17:10	<p>SESSION 41 Propellant Feed Systems</p> <p>SESSION 42 Hybrid Propulsion 2</p> <p>SESSION 43 LRE Thrust Chamber - Combustion</p> <p>SESSION 44 Green Bipropellant Thrusters</p> <p>SESSION 45 Magnetoplasmadynamic Thrusters 2</p> <p>SESSION 46 Advanced Propulsion Concepts</p> <p>SESSION 47 Propulsion Systems for Exploration Missions 1</p> <p>SESSION 48 Electrospray Propulsion 1</p>								
Chair	Yohan BLACODON - MaiaSpace	Olivier ORLANDI - ArianeGroup	Justin HARDI - DLR	Tobias LENZ - ESA	Alena KITAEVA - SITAEL	Joe CASSADY - AEROJET	Chris HUNTER - ESA - ESTEC	Malina REITEMEYER - OHB System	
17:10 1	258 - Optimization of an Onboard Cryogenic Propellant Subcooler using the Joule-Thomson Effect Kiyoshi KINEFUCHI - Nagoya University - Japan	345 - First Sounding Rocket Launch from the UAE Amna ALHOSANI - Technology Innovation Institute - United Arab Emirates	166 - Experimental Studies of Methane/Oxygen Combustions Including Off-Nominal Operating Conditions Keita YAMAMOTO - Japan Aerospace Exploration Agency (JAXA) - Japan	051 - Development, Qualification, and In-flight Demonstration of Dawn Aerospace's Family of 1N-200N Green Nitrous Oxide-Based Bi-Propellant Thrusters Maarten SCHILD - Dawn Aerospace - The Netherlands	382 - Design and Scaling of an Ammonia-Fed AF-MPDT for Bimodal Nuclear Propulsion Aldo MICCIANI - Università di Pisa - Italy	007 - Plasma Formation, Current Drive and Confinement in the Spherical Tokamak Thruster Hamda AL-ALI - Imperial College London - United Kingdom	135 - Catalyst Screening for Lunar ISRU Production of Hydrogen Peroxide Eva STEINMANN - Deutsches Zentrum für Luft- und Raumfahrt (DLR) - Germany	279 - Effect of Spatial Plume Variations on Time-of-Flight Based Performance Measurements for Ion Electrospray Propulsion Saba SHAIK - Massachusetts Institute of Technology - United States	
17:30 2	704 - An Integrated CFD-Analytical-Experimental Design Strategy for 3D-Printed Cryogenic Hydrogen Heat Exchangers Saddik ADDARKAOUI TAARABT - Safran Aero Boosters - Belgium	346 - Hybrid Rocket Engine Performance Estimation with an Unscented Kalman Filter Albertus Stephanus LOUW - Letara Ltd. - Japan	222 - Transcritical Combustion and Wall Heat Transfer Simulation of a Multi-Element LOX/CH4 Rocket Subscale Combustor Marvin POMMERENING - ArianeGroup - France	076 - ISPTech's HyNOx Self-Pressurized Propulsion Technology: Development Status and Qualification for first Missions Julian DOBUSCH - ISPTech - InSpacePropulsion Technologies GmbH - Germany	361 - Thermal Design of a Low-Power AF-MPD Thruster within the EU Project BANTER Alessa SPERBER - Institute of Space Systems - University of Stuttgart (IRS) - Germany	210 - A Multidisciplinary Design Optimization Approach to the Preliminary Design of a Solar Thermal Thruster for the Green SWaP Project Leonardo DALL'OSTO - TU Delft - The Netherlands	221 - Preliminary Study on the Environmental Stability of Solid Propulsion Materials for Deep Space Kick Stages Atsushi TAKATA - IHI Aerospace Co., Ltd. - Japan	312 - Coupled Multi-phase Simulation: Electrospray Propulsion for Small Spacecraft Nikhil MELGIRI - Royal Military College - Canada	
17:50 3	554 - Development and Qualification of Fast Acting Cavitating Venturi Control Valves Philip TZONEV - Protolaunch - United Kingdom	348 - CAMUI as Compact and Efficient High-Thrust Hybrid Rocket Boosters: a Comparative Study Marco ROTONDI - Letara Ltd. - Japan	366 - A Low-Order Framework for Predicting Transverse Combustion Instabilities in a Rectangular Model Combustor Alex FALCO - La Sapienza, University of Rome - Italy	129 - ISPTech's HIP_11 - Green Hypergolic Propulsion: Development Status and Demonstration of a Hypergolic 22N Thruster in Vacuum Felix LAUCK - ISPTech - InSpacePropulsion Technologies GmbH - Germany	627 - Bimodal Ammonia Nuclear Thermal and Electric Rocket (BANTER) Project: Progress towards Test Campaigns Angelo PASINI - University of Pisa - Italy	113 - Exploring Thrust Mechanisms of Aerographite for Photon Propulsion Applications Julius KARLAPP - TUD Dresden University of Technology - Germany	495 - Design and Testing of a GOX/GCH4 Thruster for Attitude Control on a Lunar Lander Marco Romano DELOGU - Politecnico di Torino - Italy	396 - Ion Beam Characteristics of Electrospray Thrusters using High-Energetic Ionic Liquids Koki TAKAGI - Yokohama National University - Japan	
18:10 4	590 - Lessons Learned from the Design and Development of a Rotary Ball Valve for Propellant Feed Management in the Prometheus Engine Florian MAROQUIN - Safran Aero Boosters - Belgium	771 - Testing of an Advanced GOX/Paraffin-Based Fuel 1000 N Hybrid Rocket Engine Daniele CARDILLO - CIRA - Centro Italiano Ricerche Aerospaziali - Italy	375 - Feasibility Study of Minimal-Physics Modeling for Combustion Instability in a Simplified LOX/LH2 Single-Injector Combustor Using LES and URANS Yuri SHIMBO - Kanazawa Institute of Technology - Japan	137 - Design and Evaluation of a 200 N HyNOx Thruster Control Algorithm in a Hardware in the Loop Simulation of a Landing Demonstrator Fabio ADDARIO - Deutsches Zentrum für Luft- und Raumfahrt (DLR) - Germany	685 - Discharge and Propellant Mass Flow Control in Axially and Radially Segmented AF-MPD Thruster Designs Alexander BEHNKE - University of Stuttgart - Germany	663 - Numerical Modeling of RMF-Driven Plasmoid Acceleration for Electrodeless Lorentz-Force Thrusters Using inductionFoam Luca ARMANI - GAUSS Srl - Italy	580 - RELIANCE High Performance Engine Development for Interplanetary Landing Missions Anthony HAYNES - Nammo UK - United Kingdom	714 - Ion Beam Diagnostics of a Single-Emitter Electrospray Thruster Dongho LEE - Korea Advanced Institute of Science and Technology - South Korea	
18:30 5		599 - Assessment of Injection Pattern Effects on Regression Rate in a Small-Scale HTP/HDPE Hybrid Rocket Engine Riccardo GUIDA - University of Naples - Italy	452 - LES of a GOX/GH2 Rocket Combustor with Analysis of Chamber Acoustics using a Flux Reconstruction Scheme Patrick STREMPFL - Japan Aerospace Exploration Agency (JAXA) - Japan	240 - Improved Design and Performance Assessment of a flight-weight 250 N Green Propellant Thruster Duran MARTIN - Technology Innovation Institute - United Arab Emirates	349 - Influence of Propellant Type on Thrust-Generation Mechanisms in Low-Power Applied-Field MPDTs Jakub GLOWACKI - Victoria University of Wellington - New Zealand		609 - Argonaut LDE Propulsion System Requirements and Design Tommaso MONELLO - ESA - The Netherlands		
18:50	END OF DAY 2								

PIUGLIA REGION - B2B MEETINGS

PIUGLIA REGION - B2B MEETINGS

EXHIBITION

08:00		WELCOME COFFEE							
		PLENARY SESSION							
08:30		KEYNOTE SPEECH #3 Impact on propulsion systems of the new international regulations - Christophe BONNAL - Maia Space							
09:00		INTERSESSION							
		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
09:10		SESSION 49 Solid Rocket Motors 4	SESSION 50 Hybrid Propulsion 3	SESSION 51 LRE Thrust Chamber - Injection	SESSION 52 Flight Systems Architecture & Testing	SESSION 53 Propulsion Systems Modeling	SESSION 54 Monopropellant Thrusters	SESSION 55 Hall Thruster Characterization 2	SESSION 56 Propellant Tanks 2
Chair		Yoshiki MATSUURA - IHI Aerospace	Fabrice MARTIN - ArianeGroup	Alexander BEE - DLR	Danylo SHCHERBACK - URA Thrusters	Enrico BRAGALLI - OHB System	Markus PEUKERT - OHB System	Stefan GREGUCCI - SITAEL	Shumit DAS - ESA
09:10 1		267 - Further development of a Model for the Simulation of Multi-Material Solid Rocket Motors Michael MOROFF - Fraunhofer Institute for Chemical Technology - Germany	119 - Experimental Analysis of Soot Emissions in Hybrid Rocket Engines Valerio SANTOLINI - Politecnico di Milano - Italy	307 - Hydrodynamic Effects of Swirl Coaxial Injectors in High Pressure LOX/Methane Rocket Engines Alexander BEE - German Aerospace Center (DLR) - Germany	689 - Impact on Propulsion Systems of the New International Regulations Christophe BONNAL - MaiaSpace - France	215 - Development of a new sloshing model based on the moving pulsating ball theory (MPBM) for large-amplitude liquid motion within ESPSS José Manuel BAREA LOPEZ - Empresarios Agrupados - GHESA - Spain	044 - Preliminary Study on the Effect of Monopropellant Thruster Operation on LRF Measurements in the Development of a Mars Landing Guidance and Control Hardware Simulator Kugo OKADA - Japan Aerospace Exploration Agency (JAXA) - Japan	544 - Performance of 1500 W Hall Effect Thruster for Different Voltages and Xenon Flow Rates Baris CAL - TUBITAK UZAY - Turkey	120 - Low-Pressure Vessel of Xenon Using Metal Organic Framework Technology Ryudo TSUKIZAKI - Japan Aerospace Exploration Agency (JAXA) - Japan
09:30 2		490 - Solid Rocket Motors Thermomechanical Erosion Prediction Using Advanced Eulerian Multiphase Models Giacomo PASSARANI - Sapienza University - Italy	254 - Numerical Investigation on the Regression Rate Trend of Pyrolysing Fuel in Vortex Flow Hybrid Rocket Engine Francesco CALABRÒ - Politecnico di Milano - Italy	134 - Numerical Investigation of Supercritical Swirl-Coaxial LOX/CH ₄ Injection and Combustion in DLR's Single-Element Research Rocket Combustor BKN Dogan KAYA - German Aerospace Center (DLR) - Germany	173 - EP Plume Diagnostic Package: In-Orbit Measurements Aligned with High-Fidelity Modelling Zoe ANGELOW - OHB System AG - Germany	352 - ESPSS Modelling of the Landing Platform Propulsion Subsystem for The Rosalind Franklin Mission Joseph HUNT - Airbus Defence & Space UK - United Kingdom		671 - Advancement Status of an Ultra-Sensitive Thrust Balance for High-Precision Hall Effect Thruster Characterization Pasquale NATALE - CIRA s.c.p.a. - Italy	373 - Experimental Validation of a Reinforced Blowdown Model using a saturated fluid as pressurant in a FEP Bladder Tank (Fuel Vapour Pressurization) Matteo SERCHI MASINI - University of Pisa - Italy
09:50 3		787 - Development and Validation of a 2D Coupled CFD - FE Model for SRMs Nozzle design Verification Giovanni Maria CRISPINO - AVIO S.p.A. - Italy		121 - Additive Manufacturing of a Rocket Engine Torch Igniter for Low-Cost High-Cadence Serial Production Luciano FANTON - Aerospace Propulsion Products B.V. - The Netherlands	516 - Qualification Status of Cold Gas Thrusters for Scientific and Commercial Missions Dawid JAHN - AST Advanced Space Technologies GmbH - Germany	770 - EcosimPro ESPSS modelling for preliminary design of propulsion systems for planetary missions Ludovica FORMISANI - European Space Agency - The Netherlands		727 - Experimental Investigation of Performance Improvements in Hall Effect Thrusters Excited by Quasistatic Radiofrequency (Bernstein Modes) Aaron KNOLL - Imperial College London - United Kingdom	674 - Flow Network Modeling of a Cryogenic Gallery Liquid Acquisition Device: Approach and Validation Emilio GORDON - Southwest Research Institute - United States
10:10		COFFEE BREAK							
10:40		SESSION 57 Plume & Aerodynamic Effects Evaluation 1	SESSION 58 Detonation Engines 1	SESSION 59 Combustion Chamber Modeling	SESSION 60 Development & Qualification of Hall Thruster Systems - Low Power 2	SESSION 61 Ion Thrusters 2	SESSION 62 Air-Breathing Electric Propulsion 1	SESSION 63 Modeling of Electric Thrusters 1	SESSION 64 Bipropellant Thrusters
Chair		Jérôme ANTHOINE - ONERA	Wolfgang ARMBRUSTER - DLR	Justin HARDI - DLR	Nicola KUTUFA - ESA	Elisa BONELLI - AEROSPAZIO Tecnologie s.r.l.	Eduard BOSCH BORRÀS - ESA	David KREJCI - ENPULSION	Simone ALFANO - CNES
10:40 1		008 - Computational Analysis of Radiative Heat Loading on Hydrocarbon-Fueled Rockets Sebastian KARL - DLR - Germany	035 - Reduced-order Modelling of Wall Heat Flux in Rotating Detonation Rocket Combustors with One-dimensional Coolant Coupling Victor Petri MILO - ISAE-SUPAERO - France	556 - Numerical Investigation of the Near-Injector Flow of a CH ₄ -O ₂ Flame using Finite-Rate Chemistry Modeling Jan VAN SCHYNDEL - German Aerospace Center (DLR) - Germany	457 - Development and testing of a 500W-class high-voltage argon-fed Hall thruster Leonardo TROISE - University of Pisa - Italy	406 - Status of the RIT2X endurance and environmental test campaigns Tobias MAYER - Ariane Group Germany - Germany	213 - Development and experimental characterisation of a microwave cathode for air-breathing plasma propulsion Andrea LUCCA FABRIS - University of Surrey - United Kingdom	115 - Verification of a full electromagnetic code with Finite-Difference adaptive mesh refinement in a rotating magnetic field scenario for enhanced plasma propulsion Federico NEGRO - Università Niccolò Cusano - Italy	030 - Vacuum Hot-fire Testing of the LEROS ACE-25 Hydrazine/MON 251bf Engine Alex VARNEY - Nammo UK - United Kingdom
11:00 2		009 - Unsteady Aerodynamics of Engine Startup During Retro-Propulsion on a Reusable Launcher Tamas BYKERK - The German Aerospace Center - Germany	160 - Experimental characterization of a Small-Scale Hydrogen-Oxygen Rotating Detonation Combustor at Fuel-Rich Conditions. Maria Giulia MONTI - German Aerospace Center (DLR) - Germany	593 - Comparison between Large-Eddy Simulation and Reduced-Order Modeling of a Five Coaxial LOX/CH ₄ Combustor with Acoustic Forcing Maxime CHRISTELY - Univeristé Paris-Saclay, Centralesupélec - France	479 - Laser Induced Fluorescence applied to low power Hall Thrusters operated with atomic and molecular propellant. Fabiano PERINI - CNRS - France	419 - 2D PIC-Fluid Modeling of Inductive Coupling in a Radiofrequency Ion Thruster Simone DALLE FABBRICHE - Universidad Carlos III de Madrid - Spain	241 - Air-Breathing Electric Propulsion Activities at TU Dresden Christoph PETER - Technische Universität Dresden - Germany	347 - Particle-in-cell modeling of an enhanced electrodeless plasma thruster with rotating magnetic fields Filippo CICHOCKI - ENEA - Italy	053 - From Printer to Orbit: The 0.8U Cubedrive Bipropellant Propulsion System Fiona LEVERONE - Dawn Aerospace - The Netherlands
11:20 3		125 - Chemistry Reduction Based on Neural Network Surrogate: Implementation of Adapted Thermodynamics Modeling into CFD Solver Baptiste ROMAIN - ONERA - France	077 - Detonative Propulsion: Overview of Combustion Physics and Discussion of Challenges Stephen HEISTER - Heister & Associates LLC - United States	709 - Transfer Learning: how to Build Efficient Surrogate Models of Liquid Rocket Engine Injectors with Limited Data Giovanni ROMANO - ISAE-SUPAERO - France	594 - SPARK: From Life Test to Mission Readiness Andrea LEPORINI - SITAEL - Italy	619 - Experimental Investigation of the Neutralisation Process in a Dry Neutraliser Coupled with a RF Ion Thruster Klevis GASA - University of Southampton - United Kingdom	579 - Kreios Space ABEP Development Status Stanislav TOLOK - Kreios Space - Spain	478 - Quantifying Statistical Uncertainty in PIC-MCC Simulations Philip PETERS - Technische Hochschule Mittelhessen - Germany	
11:40 4		265 - Impact of Rocket Engine Exhaust Product Uncertainties on the DLR Inventory of Global Emissions by Launchers Steffen CALLSEN - German Aerospace Center (DLR) - Germany	151 - Optical Investigation of Operational Characteristics of a Small-Scale Rotating Detonation Combustor Using Gaseous Hydrogen and Oxygen with and without Center Body for In-Space Propulsion Applications Yonghun LEE - TU Darmstadt - Germany	532 - A Lightweight Thermal Modeling Framework for Regeneratively Cooled Rocket Chambers Tiago GÂNDARA - University of Aveiro - Portugal	468 - K-HERO: A 3U CubeSat Mission for Low-Power Hall Thruster Demonstration Dongha PARK - KAIST - South Korea	625 - Pushing the Operational Envelope, Mitigating and Learning from In-Space Anomalies on the NPT30-I2 Gridded Ion Thruster Fleet Benno RIHA - ThrustMe - France	608 - Design of a VLEO wind tunnel for the characterization of air-breathing electric propulsion Tommaso ANDREUSSI - Sant'Anna School of Advanced Studies - Italy	654 - Quantum Simulation of Electric Propulsion Systems Aeriana NARBONNE - Royal Military College of Canada (RMC) - Canada	723 - Changes in Mixed Oxides of Nitrogen Chemistry During Offload Scenarios Lockett DALE - European Astrotech Ltd. - United Kingdom
12:00 5		286 - Numerical Investigation of External Flux Effect on Aerospike Nozzle Performance Mattia MAGNANI - University of Bologna - Italy	186 - Three-Dimensional Numerical Simulation of the Operation of an Experimental Hydrogen-Oxygen Rotating Detonation Engine Ignacio SERRANO - German Aerospace Center (DLR) - Germany	555 - A Comprehensive Two-Phase Flow Modeling Approach for Solid Rocket Motors Performance Prediction Giacomo PASSARANI - Sapienza - University of Rome - Italy	635 - Development and Characterization of a Miniaturized Hall-Effect Thruster for Small Satellite Applications Merve BALABAN - BERLIN SPACE - Germany	753 - Development and Qualification of the Radiofrequency Ion Thruster (RIT3.5) and Hollow Cathode Neutraliser (HC4) for the NGGM Mission. Nazareno FAZIO - Mars Space LTD - United Kingdom		648 - Particle in Cell algorithm with azimuthal Fourier mode decomposition for the study of instabilities in cylindrical plasma sources Guillermo CUERVA LAZARO - Universidad Carlos III de Madrid - Spain	746 - 3d analysis of the conjugated heat transfer of a 500 N LPBF manufactured regeneratively cooled Nitrous Oxide / Ethane apogee motor Jörg RICCIUS - DLR Lampoldshausen - Germany
12:20		LUNCH							

STARTUP CONTEST								
INTERSESSION								
	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
13:50								
14:50								
15:00	SESSION 65 Plume & Aerodynamic Effects Evaluation 2	SESSION 66 Nozzle design, development and tests	SESSION 67 Aerospike design and tests	SESSION 68 Propulsion Systems for Exploration Missions 2	SESSION 69 On-Orbit Refueling	SESSION 70 Test Facilities & Experimental Techniques	SESSION 71 Power Processing & Control Units	SESSION 72 Hall Thruster Modeling
Chair	Andrea PASSARO - ESA	Lilian PREVOST - CNES	Lysan FORSTER - DLR	Danylo SHCHERBACK - URA Thrusters	Cédric DUPONT - The Exploration Company	Charlie MUIR - ESA	Stefan GREGUCCI - SITAEL	Andrea LEPORINI - SITAEL
15:00 1	289 - Experimental Measurements and Associated Numerical Simulations on a Reduced Scale Solid Rocket Motor Jet Impinging on a Plate for Characterization of Environments at Lift-Off Julien TROYES - ONERA - France	105 - Assessment of Thrust Vector Control in a Dual-Bell Nozzle Léa ROCCHISANI - CNRS/INSA-CVL - France	065 - Assessment of Plug Effects on Toroidal Aerospike Thrust Vector Control Capabilities Davide DEMARTINI - Pangea Aerospace - Spain	149 - Preliminary Feasibility Study of Aerobraking and Aeromaneuvering Reusable Orbital Transfer Vehicles Shinjiro TSUJI - Japan Aerospace Exploration Agency (JAXA) - Japan	020 - Design and Evaluation of a Breadboard System for Liquid and Gaseous In-Orbit Refuelling: METEOR Prisca SALACHY - Airbus Defence & Space - France	024 - Presentation of the CNES Propulsion laboratory Ulysse WELLER - CNES - France	132 - PPU Developments at Thales Alenia Space in Belgium Eric BOURGUIGNON - Thales Alenia Space in Belgium - Belgium	015 - AI-Agent Based Generative Design for Electric Propulsion Systems: The Case of Hall Thruster Anode and Propellant Distributor George-Cristian POTRIVITU - Aliena Pte Ltd - Singapore
15:20 2	408 - OpenFOAM CFD Solver Comparison for One-Way Coupled CFD-DSMC Simulations of Plume-Surface Interactions Jannis PETERSEN - TUD Dresden University of Technology - Germany	141 - Experimental Study on Whistling Tone Formation in Rocket Nozzle Throats Ralf STARK - German Aerospace Center - Germany	164 - Numerical Analysis of Thrust Vector Control and Adaptive Throttling in Aerospike Engines with Inner Core Displacements Calin PROFIR - COMOTI; Romanian Research & Development Institute for Gas Turbines - Romania	646 - Enabling Interplanetary CubeSat Transfers with Multimode Propulsion: From Earth Escape to Mars Orbit Insertion Andrea FORESTIERI - Politecnico di Torino - Italy	082 - Refuelling the Gateway – The Xenon Transfer System Malina REITEMEYER - OHB System AG - Germany	143 - FAST2: Full Automatic Spacecraft Thrusters Testing Patrick COMBETTE - DACTEM INTERNATIONAL - France	138 - Airbus DS - Space Electronics, Power Processing Units last developments and technologies status Eric TREHET - Airbus Defence & Space - France	110 - Validation of VSTRAP-HET: Fully Kinetic Simulation of Hall Effect Thrusters with First-Principle Anomalous Transport Ullrich SIEMS - SPARC Industries Sarl - Luxembourg
15:40 3	461 - Jet-jet Interaction Techniques for Crater Modification in Powered Descent Soft-Landing Scenarios Takahiro UKAI - Osaka Institute of Technology - Japan	165 - Heat-Transfer Comparison of Graphite and C/C-SiC Inserts in Hybrid Rocket Nozzles Using Coupled Fluid-Structure-Simulations Jan Erik ZERIADTKE - German Aerospace Center (DLR) - Germany	438 - Hot-Fire Investigation of Aerospike Expansion Flow for Clustered LOX/Methane Engines Jan SIEDER-KATZMANN - Technische Universität Dresden - Germany	741 - Development of a CubeSat Propulsion System for Next-Generation Deep Space Missions Alexander DAYKIN-ILIOPOULOS - Mars Space LTD - United Kingdom	131 - Investigation of an External Refueler Tank to Resupply a Commercial LEO Space Station Tino KLAHN - Airbus Defence & Space - Germany	416 - Austria's first ESA_Lab@UAS WN & FOTEC: Testing facilities for propulsion systems and small satellite development Bernhard SEIFERT - FOTEC Forschungs- und Technologietransfer GmbH - Austria	341 - Development of Control Electronics for a 100 W Class Hall Effect Thruster Justin ONG - Aliena Pte Ltd - Singapore	227 - Hall Effect Thruster plume semi-analytical model results vs numerical simulations Andrea BINCI - Thales Alenia Space - Italy
16:00 4	509 - Assessment of NOx Formation in Plume Post-Combustion for Reusable Launch Vehicles Tim HORCHLER - German Aerospace Center (DLR) - Germany	313 - Global Stability of Screech Resonance in Free Shock Separation Chi Co TRAN - Monash University - Australia	510 - Numerical Study of Retro-Propulsion of an Aerospike Engine during Atmospheric Re-Entry Nathanaël ROULAND - CERFACS - France	206 - Warm-Gas Propulsion Subsystem Development for RPO Mission Adam CUDA - Stellar Exploration - Czech Republic	142 - Bipropellant Transfer System Failure Tolerant Techniques on Gateway Emilien GENET - Thales - France	502 - Reduction of Electromagnetic Disturbances in a Wireless Power Transfer System Used in Thrust Stands for Micro Propulsion Systems Ten ARAI - University of Tokyo - Japan	423 - The Multi-Voltage Power Processing Unit (MVPPU) from Development to Industrialization Roberto GUTIERREZ - Airbus Crisa - Spain	549 - Azimuthal Instabilities Driving Electron Transport in Hall Thrusters: Insights from GPU PIC Simulations Guillermo CUERVA-LAZARO - Universidad Carlos III de Madrid - Spain
16:20 5	513 - Quantitative 3D Assessment of Material Alteration in Plume-Surface Interaction Tests Theodor HEUTLING - TU Dresden - Germany	604 - PARSEC - Breadboard Development for Plasma-Based Separation Control in Over-Expanded Nozzles Daniele TOZZI - Politecnico di Torino - Italy		781 - Conceptual Design and Mission Analysis of a Range Propulsion System Based on Plasma Applied to Interstellar Travels Eduardo MARTÍNEZ-ABARCA - Universidad Politécnica de Madrid - Spain	491 - Orbit Fab Refuelling Interfaces Qualification Status and the Roadmap to Orbital Refuelling Sebastian HILL - Orbit Fab Ltd - United Kingdom	742 - Development of the LSVC Facility for High Power Electric Propulsion Testing at CIRA Marco INVIGORITO - Italian Aerospace Research Centre - Italy	639 - PPU SERIES: PLATINO & PULSE 1-kW SITAEL PPU Qualification and Coupling Test Campaign Results Paolo MONTUORO - Sitael Spa - Italy	670 - Numerical Study of Neutralization and Charge-Exchange in a 5-kW Hall Thruster Plume During Ground Testing Egor PLIASHKOV - Technology Innovation Institute (TII) - United Arab Emirates
16:40	COFFEE BREAK							
17:10	SESSION 73 Turbo Pumps 1	SESSION 74 LRE Control - Health monitoring	SESSION 75 Air Breathing and Advanced Propulsion	SESSION 76 Green Monopropellant Thrusters 2	SESSION 77 Cathodes 3	SESSION 78 Iodine Thrusters 1	SESSION 79 Development & Qualification of Hall Thruster Systems - Low Power 1	SESSION 80 Pressure Regulators
Chair	Tobias TRAUDT - DLR	Kate UNDERHILL - ESA	Clara MORRIS - DLR	Matthew SMITH - ESA	Gianluca CIFALI - SITAEL	Francesco BIANCHI - ThrustMe, LAPLACE	Cosimo DUCCI - SITAEL	Stephen GOODBURN - Airbus Defence and Space
17:10 1	198 - Improvement of the Turbopumps for LE-9 Engine of H3 Launch vehicle Takayuki KOBAYASHI - IHI Corporation - Japan	245 - AI-Driven Health Monitoring Systems for Enhanced Propulsion Reliability Sébastien PRIOTTO - ArianeGroup - France	201 - Development Status of the ATRIUM Engine and a Flight Testbed Yuki SAKAMOTO - ISAS/JAXA - Japan	668 - Development of the High-Test Peroxide Mono-propellant Propulsion System for FORMOSAT-8 Remote-Sensing Satellite Yao-Chung HSU - Taiwan Space Agency - Taiwan	384 - Electron extraction characteristics of a nozzleed hollow cathode for a multimode acceleration coaxial (MAC) thruster Shirasu KENTO - Japan Aerospace Exploration Agency (JAXA) - Japan	116 - On-Orbit Demonstration of First All-Iodine Electric Propulsion System Michael TSAY - Busek Co Inc - United States	062 - Low-Power Magnetically-Shielded Hall Thruster Development for Propellant-Mixture Studies Yusuf CAPUK - University of Southampton - United Kingdom	322 - Development of Next Generation High-Flow Electric Pressure Regulators for Chemical Propulsion Systems Thomas BRUS - AST Advanced Space Technology - Germany
17:30 2	114 - Experimental Suction Performance Investigation of the LUMEN Fuel Turbopump Christopher GROLL - Deutsches Zentrum für Luft- und Raumfahrt (DLR) - Germany	379 - Safe Imitation Learning for Optimal Thrust Control of Rocket Engines based on Control Barrier Functions Felix EBERT - Technical University of Munich (TUM) - Germany	249 - Development of a Gas-Liquid-Injection System for High-Speed Air-Breathing Propulsion Luca Thomas BAUER - German Aerospace Center - DLR - Germany	482 - ARIEL – Development of a 250N monopropellant thruster working with hydrogen peroxide 98% from scratch to commercialization Basilio DI POTO - Arkadia Space - Spain	681 - Study of High-Energy Ion Production using Laser-Induced Fluorescence Carla GUIDI - University of Pisa - Italy	118 - Overview of the iFACT-MP project: a European Iodine Fed Advanced Cusp Field Thruster for Mid-Power Jennifer LY - Airbus Defense & Space - Germany	100 - Low Power Cathode Lifetime Characterization for Sub-Hundred-Watt Hall Thrusters Alexandre GUGLIELMI - Exotrail - France	388 - Low-noise mechanical pressure regulator for cold gas propulsion systems in scientific missions Michael HAPPL - FOTEC Forschungs- und Technologietransfer GmbH - Austria
17:50 3	766 - 20 kN HTP Turbopump Design & Development Edward FLETCHER - LENA Space - United Kingdom	535 - A Comparative Study of Deep Reinforcement Learning and Model Predictive Control for Liquid Propellant Rocket Engine Control Jonas DAUER - DLR - Germany	729 - INVICTUS: a Propulsion System Overview Patrick RENNIE - Frazer-Nash Consultancy - United Kingdom	484 - DARK –Orbital demonstration of a fully European in-space propulsion system using hydrogen peroxide Ismael GUTIERREZ - Arkadia Space - Spain	730 - Advances in Electron Source Technologies for Electric Propulsion at Mars Space Ltd. Alexander DAYKIN-ILIOPOULOS - Mars Space LTD - United Kingdom	054 - Development and Characterization of the Iodine-Fed Kilowatt Thruster for iFACT-MP Saskia SÜTTERLIN - Airbus - Germany	299 - Design and Development of a Compact 300W Hall Effect Thruster Willem VAN LYNDEN - Aliena Pte Ltd - Singapore	576 - Development Status of Mechanical Pressure Regulator for Use on LISA Mission Marcus SJÖBERG - OHB Sweden AB - Sweden
18:10 4		170 - Data-Driven Health Monitoring and Fault Detection for the RS-25 Staged Combustion Liquid Rocket Engine in EcosimPro/ESPS framework Marco FABIANI - Sapienza - University of Rome - Italy	661 - Coupled Combustion-Regression Effects on Solid-Fuel Ramjet Intake and Nozzle Optimization Francesco MARGANI - Sapienza - University of Rome - Italy		732 - Final Technical Assessment and Qualification of the CHEOPS-VHP-BB High-Current Hollow Cathode Marconcini FRANCESCO - Aerospazio Tecnologie S.r.l. - Italy	474 - Laser-Induced Fluorescence Spectroscopy on Atomic and Singly Ionized Iodine in Radiofrequency Plasma Discharges Alfredo MARIANACCI - ICARE Laboratory/CNRS - France		578 - Development of a Mechanical Pressure Regulator for Chemical Propulsion Systems Marcus SJOBERG - OHB Sweden - Sweden
18:30	END OF DAY 3							
19:45	Gala Dinner & Awards Ceremony							

08:00	WELCOME COFFEE							
	PLENARY SESSION							
08:30	KEYNOTE SPEECH #4 Future crewed LEO infrastructures - Propulsion challenges - Giorgio SACCOCCIA, President, Europe - VAST							
09:00	INTERSESSION							
	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
09:10	SESSION 81 Turbo Pumps 2	SESSION 82 LRE Modeling	SESSION 83 LRE Ignition Systems 1	SESSION 84 Water Propulsion Systems 2	SESSION 85 Development & Qualification of Hall Thruster Systems - High Power	SESSION 86 Propellant Tanks 3	SESSION 87 Modeling of Electric Thrusters 2	SESSION 88 High-Thrust Propulsion for Interplanetary Missions
Chair	Lilian PREVOST - CNES	Gilles VIGIER - AAAF	Michael BÖRNER - DLR	Alberto GARBAYO - URA Thrusters	Olivier DUCHEMIN - Safran Spacecraft Propulsion	Ulrich GOTZIG - ArianeGroup	Enrico BRAGALLI - OHB System	Baptiste TROTABAS - Safran Spacecraft Propulsion
09:10	1 155 - Numerical Analysis of Labyrinth Seals for Cryogenic Turbopumps Niklas HAIN - DLR - Germany	415 - Transient Thermal-Fluid Network Modeling for Throttling Control in Full Flow Staged Combustion Cycle Engines Vasileios PASTRIKAKIS - SoftInWay UK Ltd - United Kingdom	202 - Multiplexed Laser Ignition on a Subscale Multi Chamber Set-up Roland KAESS - ArianeGroup - Germany		162 - Stability Domain Investigation for TANDEM 20kW-class Hall Thruster Simone SCARANZIN - Aerospazio Tecnologie S.r.l. - Italy	216 - Design for demise development for high pressure propellant tanks Simone HARTL - Peak Technology - Austria	175 - Model for Plasma Plume Interaction on the Example of the HEMP Thruster Clara SCHAEFER - OHB - Germany	448 - The LEROS 4: A High Thrust Spacecraft Engine for Interplanetary Applications Coxhill IAN - Nammo (U.K.) - United Kingdom
09:30	2 153 - HCF Rotor Optimization of a Rocket Main Stage Engine Turbine Rotor Pablo MARTINEZ RODRIGUEZ - ArianeGroup - Germany	381 - System-Level Simulation of the RV-X Expander-Bleed Cycle Rocket Engine Yu DAIMON - University of Tsukuba - Japan	596 - Euler-Euler and Euler-Lagrange Simulation of Laser-Induced Ignition under Flashing Conditions Christian SESSLER - Institute for Reactive Flows - Germany	200 - Water Propulsion - Developments towards flight Nicholas HARMANSA - ArianeGroup - Germany	402 - Effect of Channel Interaction on the Performance of the TANDEM 20-kW Nested Hall Thruster Guido GIAMMARINARO - University of Pisa - Italy	540 - ADORE - Aluminium Demisable Tank for Orbital Re-Entry Adam HLACIK - Stellar Exploration s.r.o. - Czech Republic	323 - Ion thruster Plume Modelling with a Three-Dimensional Particle-In-Cell Approach Federico CESCONE - University of Padua - Italy	327 - Hybrid autophagy propulsion to advance high-thrust in-space mobility: development toward qualification Martin GROS - Alpha Impulsion - France
09:50	3 413 - Cryogenic Hydrostatic Bearing Development Theunis DU TOIT - SoftInWay UK Ltd - United Kingdom	004 - Static Modelling of an Open-Cycle Liquid Rocket Engine Turan ÇOPUROĞLU - ROKETSAN - Turkey	409 - Direct Plasma Laser Ignition System for Liquid Rocket Engines - Flight Maturation and Industrialization Ashwyn GROOT - Aerospace Propulsion Products B.V. - The Netherlands	638 - Characterization of Ionization and Acceleration in a Water-Vapor Hall Thruster Using Laser-Induced Fluorescence Aoma FUJIMORI - The University of Tokyo - Japan	768 - Qualification Progress and Mission-Enabling Capabilities of the 12-kW Hall-Effect, Advanced Electric Propulsion System (AEPS) Thruster George WILLIAMS - NASA - United States		377 - Novel Multi-Point Laser-Supported Plasma Concept for CW Laser Propulsion: Numerical and Experimental Feasibility Study Hideki MORIAI - Kanazawa Institute of Technology - Japan	432 - Design and Development of the Landing Platform Propulsion Subsystem for The Rosalind Franklin Mission Joseph HUNT - Airbus Defence & Space UK - United Kingdom
10:10	COFFEE BREAK							
10:40	SESSION 89 E Pump propulsion systems	SESSION 90 Propellant Tanks	SESSION 91 Tests Facilities & Platforms	SESSION 92 Water Propulsion Systems 3	SESSION 93 Air-Breathing Electric Propulsion 2	SESSION 94 Electric Propulsion Qualification & Flight Programs 2	SESSION 95 Valves for Propulsion Systems	SESSION 96 Ignition & Combustion of Chemical Propellants 2
Chair	Dirk SCHNEIDER - ESA	Eva-Marie DUPUY - ESA	Lysan FORSTER - DLR	Alberto GARBAYO - URA Thrusters	Clara SCHÄFER - OHB System	Jaime PEREZ LUNA - ESA	Chris HUNTER - ESA - ESTEC	Preetham MADDALI - Nammo
10:40	1 256 - First E-Pump Cryogenic Engine in Europe Pierre MORIN - The Exploration Company - France	005 - Design and Verification of a Metal-Sealed Fluidic Interface for Type III COPVs Georg SÖLLINGER - Peak Technology - Austria	091 - Estimation of Vibration Environment and Structural Assessment for an Experimental Semicryo Rocket Engine Vivek S - ISRO - India	567 - Progress Toward Solar-to-Propellant Water-Based Propulsion: Programmatic Advances and Prototypes Development in the Green SWaP Project Riccardo CAMBERTONI - TU Delft - The Netherlands	397 - Particle-in-Cell model of an air-fed hollow cathode for air-breathing electric propulsion Francesco TACCOGNA - CNR - Italy	052 - Building Flight Heritage: In-Orbit Operations and Lessons Learned from Dawn Aerospace's Propulsion Systems Maarten SCHILD - Dawn Aerospace - The Netherlands	196 - Relief Valve Development - How a Simple Test at Near-Ambient Challenged an Otherwise Robust Design Elisabeth FIRCHAU - Omnidea-RTG - Germany	085 - Enhancing the combustion interruption reliability of a laser-heated propellant microthruster by using LIF nanoparticles. Timothé CHILOU - Tokyo Metropolitan University - Japan
11:00	2 453 - Validation of an HTP E-Pump for Green Propulsion Systems through Water Tests Jiri KOZAK - Inpraise systems - Czech Republic	046 - Evaluating the Predictive Capabilities of a Phase Change Model in OpenFOAM compressibleVoF Solver Antonio CANTIANI - von Karman Institute for Fluid Dynamics - Belgium	251 - European Research and Technology Test Facility P8.3 for full Cycle Investigations of Subscale Rocket Engines. Commissioning and first Operation Experience Dmitry SUSLOV - Institute of Space Propulsion, German Aerospace Center - Germany	595 - Characterization of novel regenerative cooled ceramic thruster for water electrolysis propulsion systems Jérôme HILDEBRANDT - Institute of Space Systems - University of Stuttgart (IRS) - Germany	472 - Characterization of a novel facility for air-breathing electric thrusters with a probing arm Alfio Emanuele VINCI - Scuola Superiore Sant'Anna - Italy	586 - Development and Qualification of the HEMPT 3050-C: A 1.5 kW Thruster for Satellite Constellations Ralf HEIDEMANN - Thales Germany GmbH - Germany	445 - Titanium Torque Motor Valve for Green Monopropellant Thrusters Thomas BURNS - Moog Inc. - United States	264 - A Systems Engineering Analysis of Rocket Plasma-Assisted Combustion Giorgio CRESCENZO - University of Salerno - Italy
11:20	3 568 - Functional Tests of E-pumps Designed for RELIANCE Rocket Engine with MMH and MON3 Jiri KOZAK - Inpraise systems - Czech Republic	380 - Numerical Analysis of Liquid Expulsion from a Spin Tank and the Effect of Propellant Management Devices on Suppressing Gas Ingestion Yusei YAHATA - Graduate School of Engineering, The University of Tokyo - Japan	569 - Commissioning of a 40kN Class Rocket Test Facility for LOX, LCH4 and Subcooled-C3H8 Propellants Iain WAUGH - Airborne Engineering Ltd - United Kingdom	610 - Comparative analysis of water electrolysis versus conventional satellite propulsion systems Jérôme HILDEBRANDT - Institute of Space Systems - University of Stuttgart (IRS) - Germany	566 - Development and Validation of a Novel CubeSat-scale Air-breathing Electric Propulsion System Vittorio GIANNETTI - Celeste S.r.l - Italy	624 - HEMPT-EV0 Qualification and Production Status Angelo GENOVESE - THALES Deutschland - Germany	645 - Thruster Valves Development - Lessons Learned and Next Steps Krzysztof PIETRZAK - Lukasiewicz Research Network; Institute of Aviation - Poland	650 - Effect of Methanol Addition on the IDT and Spray Combustion of a Hypergolic Green Bipropellant Fabio MOTA - Federal University of ABC (UFABC) - Brazil
11:40	4 250 - E-assisted Turbopump Demonstrator: a Novel Pump-Fed Approach not only for 30kN Liquid Rocket Engines Jan SNÁSEL - Inpraise Systems s.r.o. - Czech Republic	520 - Thermohydraulic Modeling of Cryogenic Tanks with Large-Eddy Simulation Yohan BLACODON - ArianeGroup SaS - France	682 - Commissioning and Testing of Scotland's MachLab Propulsion Test Facility Krzysztof BZDYK - University of Glasgow - United Kingdom	616 - Mission Concepts and Propulsion Trade-Offs for a Large-Scale Enceladus Exploration Fabian RIEGELSBERGER - Technical University of Munich (TUM) - Germany	592 - Time-Averaged Plasma Diagnostics in the Plume of an Air-Breathing-Relevant Helicon-Based Thruster Running on Air and Noble gases Vincent DELBOSQ - KREIOS SPACE SL - Spain	711 - Initial Mission Results from Héki – A Superconducting Magnet Technology Demonstration for Electric Propulsion Applications Randy POLLOCK - Victoria University of Wellington - New Zealand	756 - Development of a qualified thruster valve into an in-line refuelling valve for manned/crewed applications Barry ALDWELL - Nammo Ireland - Ireland	701 - Combustion Chamber Optimization for a Green Monopropellant Based on Nitromethane Miguel Cipriano GARCES - German Aerospace Center (DLR) - Germany
12:00	5 293 - Experimental and Numerical Study of Cavitating Bubble at Tank Wall Alessandro NOVI - Von Karman Institute - Belgium		772 - H-IMP: A Test Bench for Cryogenic Propulsion – Design Innovations, Advanced Diagnostics, Simulation Models, and Validation Plan Federico DE FILIPPIS - CIRA Italian Aerospace Research Centre - Italy	688 - Progress on Transpiration Cooling Using Additively Manufactured Porous Metal for Performance Enhancement of Water Electrolysis Propulsion Spacecraft Thrusters Sascha DENGLER - Technical University of Munich (TUM) - Germany	606 - RED: RAM-EP in-orbit Demonstrator Gianluca CIFALI - SITAEL - Italy	740 - One Web Constellation Propulsion Sub System, Innovation & Challenges Fabien MALET - Airbus Defence & Space - France	776 - Design and Verification Approach for Small Satellite Relief Valve Krzysztof PIETRZAK - Lukasiewicz Research Network; Institute of Aviation - Poland	475 - Design of a Tapered Combustion Chamber for Flame Position Stabilization Using Wire-Shaped Fuel in a Chemical Propulsion System Masaki FUJII - The University of Tokyo - Japan
12:20	LUNCH							

PLENARY SESSION

PLENARY ROUND TABLE #5

Space Propulsion at a Turning Point: Reusability, Long-Duration Operations, In-Orbit Refueling and Nuclear Options | *Moderator* : François BUFFENOIR, Way4Space
 Cédric DUPONT, The Exploration Company - Christophe BONNAL, AAE/EUCASS - Marco DI CLEMENTE, ASI - Joe CASSADY, L3 Harris - Charles BEIGBEDER, Expansion VC

INTERSESSION

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
15:00	SESSION 97 Turbo Pumps 3	SESSION 98 Detonation Engines 2	SESSION 99 LRE Ignition Systems 2	SESSION 100 Ignition & Combustion of Chemical Propellants 3	SESSION 101 Air-Breathing Electric Propulsion 3	SESSION 102 Non-Conventional Hall Thrusters	SESSION 103 Electrodeless Thrusters	SESSION 104 Nuclear Propulsion 2
Chair	Lois MARTINS PIÑON - EPFL	Cédric DUPONT - The Exploration Company	Adrien BOIRON - MaiaSpace	Cristina GALDAMEZ - URA Thrusters	Malina REITEMEYER - OHB System	Merve BALABAN - BERLIN SPACE Consortium	Cosimo DUCCI - SITAEL	Armin HERBERTZ - ESA
15:00	1 209 - Comparison between Hydrodynamic Calculation considering Vaporization and Experimental Results of Surface Textured Mechanical Seals for Reusable Rocket Engine turbopumps Kenta UCHIDA - Eagle Industry Co., Ltd. - Japan	284 - Toward Regeneratively Cooled RDRE: A KARI Initiative for Design Parameter Evaluation with a Sub-scale RDRE Combustor Dongwoo CHOI - Korea Aerospace Research Institute - South Korea	463 - Improvements on the Throttleable Liquid Rocket Engine utilizing High-Test Peroxide Michal RANACHOWSKI - Lukaszewicz Research Network - Institute of Aviation - Poland	047 - Hall Thruster Operation Using Magnesium and Calcium as In-Situ Lunar Propellants Adam PARKS - University of Southampton - United Kingdom	308 - Effect of Magnetic Field Strength on the Performance of the ALFVEN Thruster Yung-An CHAN - German Aerospace Center (DLR) - Germany	107 - Influence of the Power Generation Cycle Design on the Development of an Ammonia-Fed Bimodal Nuclear Propulsion System Alberto TACCHI - University of Pisa - Italy		
15:20	2 657 - Flow Field Reconstruction Applied on a Sparse Sensed Turbopump Manifold Sarah KRAMER - ArianeGroup GmbH - Germany	451 - Towards Steady-State Operation of Rotating Detonation Combustors Daniel BANUTI - Karlsruhe Institute of Technology - Germany	359 - Experimental Tests of Resonance Ignition System with GN2 and Effects of Optimized Geometry Emiliano FORTI - AVIO S.p.A. - Italy	473 - Study on spray characteristics of liquid-liquid pintle injector using mechanical and optical patternators Noritaka SAKO - Japan Aerospace Exploration Agency (JAXA) - Japan	099 - Towards the Experimental Demonstration of Cryogenic Propellant Regeneration Cameron LESLIE - Cranfield University - United Kingdom	127 - Development of a 2kW-class Double Stage Hall Thruster Utilizing Zinc Propellant Yang XIONG - Harbin Institute of Technology - China	329 - Metasurfaces to Advance Electric Space Propulsion Mirko MAGAROTTO - University of Padova - Italy	393 - Ammonia Catalytic Decomposition to Enhance the Performance of the Bimodal Ammonia Nuclear Thermal and Electric Rocket Natasha PALAZZI - University of Pisa - Italy
15:40	3 460 - Experimental Investigation of a Coupled Multi-Cylindrical Rotating Detonation Engine with Slit Akihito NAKAMA - Nagoya University - Japan	611 - Subscale Testing of the Multiplexed Fiber-Based Laser Ignition System for the ENLIGHTEN Engine Demonstrator Alexander BEE - German Aerospace Center (DLR) - Germany	481 - Ignition and Combustion Analysis of Catalytic Hypergolic Fuel (HIP_11) with Hydrogen Peroxide (HTP 980) in Confined Impinging Jets Configurations Caroline CHABAUD - PPRIME laboratory - France	332 - Plasma Chemistry in RF Discharges with Nitrogen-Oxygen-Argon mixtures: Model and Experimental Setup Alfio Emanuele VINCI - Sant'Anna School of Advanced Studies - Italy	257 - Plume Diagnostics of a Double-channel TAL-type Hall Thruster Nanami TAKIGUCHI - Tokyo Metropolitan University - Japan	642 - On the Broadening of Ion Velocity Distribution Functions Measured with ExB Probes in Electrodeless Plasma Thrusters Borja BAYÓN-BUJÁN - Universidad Carlos III de Madrid - Spain	395 - Cycle Analysis of a Nuclear Bimodal Propulsion System using Ammonia as the Propellant Stefano GIUNTINI - University of Pisa - Italy	
16:00	4 338 - Accelerated Discovery of Multi-Material Turbine Architectures for Reusable Oxygen-Rich Turbomachinery Mirco NYDEGGER - Massachusetts Institute of Technology - United States	512 - Design of an Rotating Detonation Combustor for Heat-Flux Measurements Florian DITSCHKE - TUD Dresden University of Technology - Germany	692 - Ignition Sequencing Strategies for minimum ignition overpressure in LOX/methane space propulsion thrust chambers Michael BÖRNER - DLR - Germany	571 - Evaluation of Thermal Imaging for the Investigation of the Heat Release in a Resonance Ignition System Tom LINNEMANN - TU Braunschweig - Germany	779 - Atmospheric Breathing Electric Propulsion Inlet Alexandru-Claudiu CANCESCU - National Research and Development Institute for Gas Turbines COMOTI - Romania	420 - 2D Hybrid Plasma Simulations of the CHT200 Cylindrical Hall Thruster Iñaki FERNANDEZ - Universidad Carlos III de Madrid - Spain	400 - Innovative Particle Bed Nuclear Reactor Design for Space Power and Propulsion Applications Elia PUCCINELLI - University of Pisa - Italy	
16:20	COFFEE BREAK							
16:50		SESSION 106 Propellant Behavior Modeling	SESSION 107 LRE Ignition Systems 3	SESSION 108 Electrospray Propulsion 2	SESSION 109 Experimental Techniques 2	SESSION 110 Iodine Thrusters 2	SESSION 111 Water Propulsion Systems 4	
Chair		Emilio GORDON - Southwest Research Institute	Till HÖRGER - DLR	Andrea LEPORINI - SITAEL	Baptiste TROTABAS - Safran Spacecraft Propulsion	Gianluca CIFALI - SITAEL	Joe CASSADY - AEROJET	
16:50	1 411 - Numerical Analysis of the Propellant Behaviour inside the Ariane 6 Upper Stage LOX/LH2 Cryogenic Tanks Fabrice MATHEY - Air Liquide Advanced Technologies - France	522 - Spray Visualization and Atomization Evaluation of Novel Impinging Schemes Luca CAFFIERO - Politecnico di Milano - Italy	197 - Validation of ion emission model for actively fed porous ionic liquid electrospray thrusters Koki TAKAGI - Yokohama National University - Japan	456 - Miniature Force Probe Thrust Measurements and Plume Characterization of the ECRA Thruster Giada BRANDI - ONERA - France	331 - One-Dimensional Spatio-Temporal Multi-Species Fluid Modeling of Iodine-Fed ECR thrusters. Yannice SOULE - ONERA, Université Paris-Saclay - France	435 - Building Test Capability to Enable Water-Based Propulsion Development at URA Thrusters Danylo SHCHERBAK - URA Thrusters Ltd. - United Kingdom		
17:10	2 418 - CRYVALIS – A European Cryogenic Storage and Refuelling In-orbit Demonstration Kathleen BLYTH - Absolut System - France	530 - Performances of Doped Triglyme/Hydrogen Peroxide Hypergolicity in Thruster-like Conditions Célia SOUDARIN - ISAE-ENSMA - France	321 - Promoting Axial Emission from Porous Electrospray Ion Thrusters to Improve Thruster Lifetimes – Insight from Direct Optical Visualisation Euan DONOVAN-HILL - University of Southampton - United Kingdom	440 - Design, development, and qualification of REGULUS-150-I2 Daniele PAVARIN - Technology for Propulsion and Innovation S.p.A. - Italy	519 - Analysis of the Effects of Condensed Combustion Product Powderization on Thrust Performance in a Water–Magnesium Wire Micro Propulsion System Minwoo HAN - The University of Tokyo - Japan			
17:30	3 500 - A study on the Instability of Subcooled Flow Boiling in Parallel Channels Yohei MATSUDA - The University of Tokyo - Japan	623 - Electric Field Prediction in Externally Wetted Electrospray Thrusters using Adaptive Sampling Optimized Gaussian Surrogates Upasana CHOUDHURI - RAPPEL Lab, Royal Military College of Canada - Canada	684 - Wien filter analysis of ion species composition in an iodine-fed Hall thruster Francesco Mattia BIANCHI - ThrustMe, LAPLACE - France	575 - Functional And Performance Testing Of 1N Water Electrolysis Propulsion System Breadboard Jeni VILAG - COMOTI; Romanian Research & Development Institute for Gas Turbines - Romania				

INTERSESSION

PhD Awards Ceremony sponsored by EUCASS

KEYNOTE SPEECH #5

CLOSING ADDRESS - Ulrich GOTZIG, ArianeGroup - Adrien BOIRON, Maia Space

END OF DAY 4

EXHIBITION

FRIDAY 22 MAY 2026 // DAY 5

08:00

TECHNICAL VISITS

Online registration is mandatory - Detailed agenda available online

TECHNICAL VISIT #1 – SITAEL premises in Bari

TECHNICAL VISIT #2 – ASI premises in Matera

TECHNICAL VISIT #3 – Grottaglie Airport Test Bed (via DTA)

12:30

END OF SP2026 CONFERENCE

WARNING : THIS PROGRAM IS STILL SUBJECT TO MODIFICATIONS

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For more information: www.3af-spacepropulsion.com

CONFERENCE VENUE

Space Propulsion 2026 will be held at **Nueva Fiera del Levante**, a modern seafront venue in the center of Bari.

Lungomare Starita, 4, 70132 Bari, Italy
<https://fieradellevalente.it/>



EVENT LOCATION & ACCOMMODATION

Fiera del Levante is a landmark venue on the Adriatic coast, offering flexible spaces ideal for international congresses, exhibitions, and business meetings.

Many advantages:

- Modern and spacious, with seafront views
- Only **15–20 minutes from Bari Airport**
- Easy access to public transport and taxis
- Located **10 minutes from Bari Centrale** (main train station)
- Several hotels (3* & 4*) **within 5–10 minutes by car**
- Over **6,000 hotel beds within 2km** of the venue
- Walkable distance to Bari's historic center and waterfront for **social programme venues**

Learn more about Bari here: <https://www.viaggiareinpuuglia.it/at/5/bari>

ACCESS

Bari Karol Wojtyła International Airport (BRI) is located approximately 10 km from Bari city center. 20 minutes by taxi to city center or Congress Center (Taxi 30€ / Public transport 1,50€) Bus shuttle service (Tempesta or AMTAB) runs approximately every 40–60 minutes.

Flight durations to Bari (direct flights, approximate):

• Paris :	2h15	• Lisbon:	3h15
• Amsterdam:	2h30	• Rome:	1h05
• Berlin:	2h00	• London:	2h55

For more information on air traffic, please visit: <https://www.aeroportidipuglia.it/bari>
Italy is part of the Schengen Area. European Union citizens may travel using either a valid passport or national identity card. Travelers from non-Schengen countries must present a valid passport, typically valid for the duration of the stay.



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CONFERENCE SECRETARIAT

3AF • 6, rue de Galilée • 75016 Paris – France
Aude **LURBE**
Phone: +33 (0)1 56 64 12 37
E-mail: spacepropulsion@3af.fr
Web : www.3af-spacepropulsion.com

EXHIBITION

If you are interested in receiving the exhibition opportunities details, please contact
Jennifer **SAVINA**
Mob : +33 (0)6 09 42 83 88
Email: event@3af.fr