

15th EASN International Conference on
Innovation in Aviation & Space towards sustainability today and tomorrow

Final Detailed Agenda

DAY 1 | 14.10.2025

8:30	16:00	Registration
ROOM		A-021
9:00	9:15	Conference Opening & Welcome Addresses
9:15	9:45	KEYNOTE SPEECH Flying to aviation sustainability with hydrogen: Facts & Challenges by Mr. Pierre-Alain Lambert SAFRAN SA, Manager of the Energy & Propulsion Department
Chaired by		Prof. Gustavo Alonso Conference co-Chairman
9:45	9:55	Signature of MoU between JEDA and EASN Association
9:55	10:55	DISCUSSION PANEL Re-charge innovation to re-gain Europe's competitiveness
Panelists		Mr. Andreas Boschen SESAR 3 Joint Undertaking, Dr. Markus Fischer German Aerospace Center (DLR) & Acting Chairman of EREA, Mr. Axel Krein Clean Aviation Joint Undertaking, Prof. Andreas Strohmayr European Aerospace Science Network (EASN), Chairman, Professor at the Institute of Aircraft Design, University of Stuttgart
Moderated by		Prof. Spiros Pantelakis European Aerospace Science Network (EASN), Honorary Chairman, Professor Emeritus, University of Patras

10:55	11:25	Coffee Break
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ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	COLOSSUS X-Challenge Student Competition: Exploring Solutions to Wildfire Fighting Using Innovative Aircraft Designs and System of Systems Analysis	Thermal management advances in (hybrid-) electric propulsion systems PART I	Clean Aviation Ultra-Performance Wing project	Innovative Materials and Manufacturing Processes for Developing Sustainable Smart Composites PART I	EFACA SESSION I: TECHNOLOGIES FOR AIRCRAFT DESIGN	LCA in Aviation	UAV/UAS: Systems and operations	AI in space
	Mr. Prajwal Prakasha (DLR, Germany)	Prof. Klaus Höschler (Brandenburg University of Technology, Germany)	Dr. Bruno Stefes (Airbus Operations GmbH, Germany) & Dr. Michael Méheut (ONERA, France)	Prof. Liberata Guadagno & Prof. Roberto Pantani (University of Salerno, Italy)	Prof. Francisco Pérez Moreno (Universidad Politécnica de Madrid, Spain)	Ms. Ligeia Paletti (DLR, Germany) & Mr. Daniel Kan (NLR, Netherlands)	Prof. Lidia Serrano Mira (Universidad Politécnica de Madrid, Spain)	Dr. Wiebke Brinkmann (DFKI GmbH, Germany)
11:25 – 11:45	Introduction to X-Challenge Prajwal Prakasha	Cooling system for a future electric aircraft using superconducting and cryogenic technologies Matteo Tassito, Swapnil Kharche, Keith-Royce Lai, Timin Jacob, Frederick Berg, Antoine Delarche, Camille Chaper, Vincent Bourgoign, Reda Abdouh, Ravi Kiran Surapaneni, Jean Francois Allias, Ludovic Ybanez	Composite-Based Advanced Lightweight Design with Non-Conventional Laminates Guillermo Máximo Rodríguez, Federico Martín de la Escalera	Novel hydrophobic epoxy-based coatings containing a sol-gel hybrid material and other additives for aircraft applications Viviana Nebbioso, Silvia Roscioli, Miriana Dedes, Claudio Imperato, Aurelio Bifulco, Amadeo Amoresano, Antonio Aronne	THE AIR PROPELLER IS DRIVEN BY A GEARBOX THAT COMBINES A GAS TURBINE AND AN ELECTRIC ENGINE. PREPARATION FOR TESTS Sergiy Dmytriyev , Oleksandr Korniychuk, Andriy Yedynovych, Oleksandr Kolokolov, Igor Kravchenko	A research-based approach to the standardisation of LCA for the air transport system D. Kan, A. Rahn, E. Scheers, J. Albano, J. Bachmann, S. Diniz L. Paletti	Effects of Local Parcel delivery via Drones – A modelled case study Teemu Joonas Lieb , Niklas Peinecke, Gunnar Schwach	Application of artificial neural networks in unmanned aircraft vehicle control and surveillance system Dariusz Rykaczewski
11:45 – 12:05	Advancing Aerial Firefighting with Extended Operational Design using Novel Strategies and Aircraft Concepts Shradha Sheshadri , Alex Mercier, Sarah Treece, Cristian Puebla Menne	Staged Impingement Arrays for Novel Heat Exchanger Designs: A Numerical Investigation Hans-Martin Schlesier, Robin G. Brakmann, Robin Schöffler, Pawel Ziolkowski, Sahil Bhapkar	Slender Wing Morphing Leading Edge Surfaces – Analysis of Advanced Drop Nose Device within the frame of CLEAN AVIATION David Cruz Palacios, Federico Martín de la Escalera	Fire-resistant and smoke suppressant multilayer textile material developed through the assistance of AI modelling Immacolata Climaco, Jessica Passaro, Viviana Nebbioso, Angelo Casciello, Daniele Battigazzore, Pietro Russo, Claudio Imperato, Aurelio Bifulco, Giulio Malucelli, Antonio Aronne	A NOVEL PCHP-COOLING APPROACH FOR AVIATION FUEL CELLS Arne Graf von Schweinitz, Bhavjat Singh Munjal, Xin Gao, Michael Heere	How lightweight design and sustainable aviation fuels can change the European environmental impact of aviation - a simplified case study Peter Brantsch, Janik Maurice Unterföhner	Machine Learning-based resolution of strategic conflicts in U-space airspaces Manuel González Rodríguez, Sandra Amarillo Varó, Juan Vicente Balbastre Tejedor, Alex Sanchis Marín	ERGO: A mature Autonomy Framework for Space Robotics Francisco Javier Colmenero Lechuga , Jorge Ocón, Mercedes Alonso, Raquel Jalvo, Javier Ramos
12:05 – 12:25	Integrated Aerial System Design for Wildfire Fighting and Surveillance with Tactical Considerations Gihoo Lee, Byeongjun Park, Minseong Kim, Seewoong Oh, Seewoon Park, Soungmin Choi	DYNAMIC SIMULATION AND COMPARISON OF NANOFIUID APPLICATIONS ON AIRCRAFT THERMAL MANAGEMENT SYSTEM Sofia Caggese, Flavio Di Fede, Marco Fioriti, Grazia Accardo	Comparative Study of Strut-Braced and Cantilever Dry-Wing Configurations for LH2-Powered Aircraft: Exploring the Aero-Structural Benefits and Challenges M. Méheut, D. Losada Costosa, F. Moens, O. Atinault, G. Starck, C. Julien, L. Vertonghen, C. Mollet, V. Priasso, A. Lanna, S. Defoort, E. NGUYEN Van, E. Sciarrotti, D. Glenis, J. Sodja, S. de Boer, H. Pfander & D. Eisenhut	Modular Construction for Lunar Infrastructure Using Fiber-Reinforced Composites Linda Cortés Salizabal, Kira Heins, Thomas Gries	Experiences from designing, authorizing and procuring a liquid hydrogen infrastructure at the laboratory scale Daniel Terlizzi, Abdullah Bamashmoosh, Gianluca Valenti	LCA of trailing edge maintenance – a case study of graphene nanoplatelet-based coating Ana Claudia Nioac de Salles, Ozlem Turkarslan, Feride Nur Sasal, Ana Ramirez de las Heras, Lynn Chikoshia, Lidia Lancelloffi, Luciano Macera	On the Assessment of Drone Noise for Sustainable Urban Air Mobility Operations Marco Rinaldi, Saeed Moghsoodi, Stefano Primatesa	Design and development of deployable astronomical robotic observatories. A new concept in space surveillance and tracking Francisco Ángel Espartaco Briceno , Javier Cubas, Ana M. García, Santiago Pindado
12:25 – 12:45	Designing and Evaluating Sustainable and Effective Aircraft for Aerial Wildfire Fighting Kaung Seff Toe, Kyaw Zaw Hlyan, Soe Yu Waddy, Aung Hein Kyaw	Experimental Characterization of a Compact Gyroid-Pipe Heat Exchanger for the Propulsion of a Fuel Cell Powered All-Electric Aircraft Chetan Saini, Jeffrey Haensel, Stefan Kazula, Sebastian Merbold, Franz-Theo Schoen	How to achieve high-rate manufacturing of advanced leading edges using surface technology – erosion protection and demolishing Uwe Lommatzsch, Lukas Menzel, Matthias OH, Dirk Salz, David Cruz and Federico Martín de la Escalera	Off-the-shelf Simulation for Demolishable Mandrels: An Experimental and Numerical Approach to Thermoplastic Shape-Memory Polymers Fabian Neumann	The design of a hybrid turbo-electric propulsion (HTEP) with fuel cells for a hybrid regional aircraft (HRA) with a capacity of 80 passengers and a range of 1,000 km, along with the various variants of the HTEP layout Maksym Kirichkov, Oleksandr Yelanskyi, Igor Kravchenko	Uncertainty Quantification in Life Cycle Assessment for Aviation Maria Höller	UAV formation flight in non-segregated airspace Grzegorz Drupka, Daniel Lichoń, Jacek Pieniżek, Tomasz Rogalski	Artificial Intelligence for planetary exploration – lessons learned from a decade of analog field tests Andreas Bresser, Raul Dominguez, Wiebke Brinkmann, Malvin Loux, Gunnar Schönhoff, Mehmed Yüksel, Udo Frese, Frank Kirchner
12:45 – 13:05	A Holistic Approach to Wildfire Fighting Aircraft Fleet Design Using Operational Considerations and Evaluation Metrics Jonah Gerardus, Somrick Das Biswas, Adler Edsel, Ece Inanc	Experimental Characterization of a Compact Gyroid-Pipe Heat Exchanger for the Propulsion of a Fuel Cell Powered All-Electric Aircraft Chetan Saini, Jeffrey Haensel, Stefan Kazula, Sebastian Merbold, Franz-Theo Schoen	Modular interfacing of GEMSEO with FlowSimulator towards efficient high-fidelity multidisciplinary design optimization Alexandre Scoffo Di Perrotolo, Arthur Stück, Sebastian Gottfried, Constantin Höing	Thermal and pressure digital twins for online process control and data-based optimization of laser-assisted insitu consolidation of vitrimer composite parts Beatriz Gomez, Pablo Romero-Rodríguez, Mario Fernandez-Pedraza	DESIGN OF A 150-SEATS 2000 KM RANGE LH FUELED JETLINER S. Fil, D. Berbenets, A. Khaustov, O. Urban, O. Bondarchuk	Identifying barriers and solutions towards the integration of LCA in an aircraft design process LPaletti, M. Wolff, A. Pohya, G. Wende	Proposal of an approach to dimension the protection buffer of different UAS categories for the U-space Separation Management Service Brando Fraiz, Sandra Amarillo, Alex Sanchis and Juan V. Balbastre	Exoskeleton based microgravity simulation for astronaut training Mathias Trampler , Marc Table, Elsa Andrea Kirchner
13:05 – 13:25	Open Discussion		Vibration based ice protection systems for high aspect wings Denis Becker, Christopher Davies	Tailoring the Piezoresistive Response in 3D-Printed Polyetherimide Sensors via Carbon Black/Carbon Nanotube Hybridization Merve Karabal, Ramazan Yuksel, Hulya Cebeci, Alptekin Yildiz	On enabling technologies and aircraft design for the greening of aviation L. M. B. C. Campos, J. M. G. Marques, P. G. T. A. Serrão	Well-to-Wake Emissions of Conventional and Emerging Propulsion Technologies Across Current and Future Scenarios Athanasios Pappas, Katerina Margeti, Anastasia Gkika and Elias Koumoulos	ENSURE – Initial U-Space / ATM Integration Julian Alonso	Toward Reliable Object Tracking in Unstable Conditions: A Deep Learning Approach for UAV Applications Łukasz Popek, Paweł Woźniak, Konrad Barys, Rafał Chataupczyński, Artur Abratański, Jakub Świerk, Rafał Perz

ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Holistic Impact Assessment in Aviation: Frameworks, Climate Metrics & Beyond	Thermal management advances in (hybrid-) electric propulsion systems PART II	Clean Aviation Open Digital Environment for Hybrid-Electric Regional Aircraft	Innovative Materials and Manufacturing Processes for Developing Sustainable Smart Composites PART II	EFACA SESSION II: ROADMAP FOR GREENING OF AVIATION	Eco-Design and Life-Cycle-Assessment for Hybrid Electric Aircraft	Air Traffic Management (ATM)	Space Robotics – Current and Future Trends in Research and Development
	Mr. Prajwal Prakasha (DLR, Germany)	Prof. Klaus Höschler (Brandenburg University of Technology, Germany)	Dr. Luca Boggero (DLR, Germany)	Prof. Liberata Guadagno & Prof. Roberto Pantani (University of Salerno, Italy)	Prof. Francisco Pérez Moreno (Universidad Politécnica de Madrid, Spain)	Dr. Thomas Reichert & Mr. Peter Brantsch (Fraunhofer-Gesellschaft, Germany)	Prof. Luis Perez Sanz (Universidad Politécnica de Madrid, Spain)	Dr. Wiebke Brinkmann (DFKI GmbH, Germany) & Dr. Carlos Perez (Universidad de Malaga, Spain)
14:30 14:50	Evolving Needs and Innovations in Aviation Impact Assessment Patrick Ratei	Heat Pipe-Assisted Air Cooling for Fuel Cells in Aviation; Heat Transfer Modeling and Design Modifications Friedrich Franke, Fabian Kramer, Markus Kober, Stefan Kazula	Development of an Open Digital Environment for Design and Verification of Hybrid-Electric Architectures Carlos Cabaleiro de la Hoz, Francesco Torrigiani, Fabien Retho, Philippe Barabinoi, Andrea Terracciano, Pierpaolo Borrelli, Tim Klaproth, Andrea Masi	Morphological and mechanical analysis of self-healing thermosetting load-bearing resins Marialuigia Raimondo, Elisa Calabrese, Luigi Vertuccio, Liberata Guadagno	BATTERY-POWERED AIRCRAFT: TECHNOLOGIES AND DESIGNS Maria ZAMARREÑO SUÁREZ, Rosa María ARNALDO VALDÉS, César GÓMEZ AGUILERA, JURADO DELGADO-AGUILERA, JURADO, Francisco PÉREZ MORENO, and Víctor Fernando GÓMEZ COMENDADOR	Eco-Design and Life Cycle Assessment for Hybrid Electric Aircraft Thomas Felix Reichert, Peter Brantsch, Gabriela Gromer	pyTOM: A python-based Multicriterial Optimization Framework for Aircraft Trajectories in large Traffic Scenarios Maximilian Mendiguchia Meuser, Thorsten Ehlers, Alexander Lau, Benjamin Lührs, Ruben Grunau, Rouven Kanitz	Overview of research on multi-robot teams for space applications in Europe Wiebke Brinkmann, Carlos J. Pérez-del-Pulgar, Miguel Olivares-Mendez
14:50 15:10	Climate Impact Assessment of Future Aircraft Technologies: Methodology Demonstration and Recommendations from the CLAIM Project Pascal Bertram	On the design and operation of the thermal management system of PEMFC-powered aircraft Marius Nozinski, Patrick Meyer, Fabian Delony, Jens Friedrichs, Jan Göing, Stephan Kabelac	A SysMLv2 Ontology for Design and Verification of Hybrid-Electric Regional Aircraft Carlos Cabaleiro de la Hoz, Francesco Torrigiani, Jasper Bussemaker, Fabien Retho, Olexiy Kupriyanov, Klara Ziegler, Juan Manuel Lorenzi, Jean-Marie Gauthier, Jean-Christophe Giret, Vito Primavera	Towards the Development of Sustainable Thermosetting Composites for Aeronautics Raffaele Longo, Luigi Vertuccio, Francesca Aliberti, Elisa Calabrese, Marialuigia Raimondo, Roberto Pantani, Liberata Guadagno	Effects of long-term impact of the use of SAF: evaluation of SAF ecological properties for reducing pollutants Renata Adams, Hetal Parmar, Patrizia Lamberti, Maria Sarno, Vincenzo Tucci	LCA and LCC activities in Clean Aviation HERA project Marco Fioriti, Marco Borghi, Guido Pavan	A Structured Methodology for Resolving Capacity-Quality-of-Service Interdependencies in SESAR Performance Management Christian Verdonk Gallego, Jose Manuel Cordero García	Prototyping and testing System Interconnect standard Interoperable for Orbital Services Raphael Boissonnade, Montserrat Diaz-Carrasco, Matisse Briand, Mathieu Deremetz, Thomas Schervan, Mehmed Yüksel
15:10 15:30	Impact Monitor 2 Framework for Holistic Impact Assessment Andrea Mancini	Assessment of Thermal Management Designs for High Temperature Fuel Cells in Future Aircraft Tom-Soeren Stump, Mirko Hornung	Connecting simulation and data management tools through open standard to support hybrid aircraft design Klara Ziegler, Rafael Parzeller, Olexiy Kupriyanov, Elias Allegaert, Pierre Bionne, Roland Wüchner, Philippe Barabinoi, Juan Manuel Lorenzi, Fabien Retho A generic tool for multi-fidelity MDO under uncertainty, with application on hybrid electric regional aircraft Romain Espoey, Sylvain Béchet, Jean-Christophe Giret, Matthias De Lozzo, François Gallard, Simone Mancini, Tim Klaproth	Epoxy Nanocomposites for Lightweight Hydrogen Storage Tanks: From Processing to Performance Giorgia De Piano, Raffaele Longo, Liberata Guadagno, Roberto Pantani	EFACA aircraft noise in flight and ground operations on a roadmap to ACARE noise goals Oleksandr Zaporozhets, Andrizej CHYLA, Kateryna KAZHAN, Vitalii MAKARENKO, Vadim TOKAREV	Critical and relevant raw materials for aviation with the focus on GWP for hybrid electric aircraft applications Peter Brantsch, Gabriela Gromer	SESAR - IFAV3 - Solution 1c "Smart Sector Grouping" Mariano Rubio Diaz, Teresa Aranguiete, David Rodriguez-Madradejos, Jose Manuel Risquez	DFKI-X2D – Design and Testing of a Quasi-Direct Drive Motor for Space Applications Jonas Eisenmenger, Zhongqian Zhao, Pierre Willenbrock
15:30 15:50	Designing Preliminary Impact Assessments in Impact Monitor 2 Aligned with European Aviation R&I Activities Thierry Lefebvre	Concept of a composite folded sandwich core skin-heat-exchanger with experimental investigation of surface temperatures using temperature sensitive paints Marvin Tigre Larschow, Simon Thissen, Jakob Gugliuzza, Stefan Zisler, Rico Poser	Design and Integrated Verification of Hybrid-Electric Power System for Regional Aircraft Andrea Terracciano, Pierpaolo Borrelli, Elias Allegaert, Gerardo Carbonaro, Danilo Ciliberti, Vito Primavera, Alfredo Renzetti, Fabien Retho, Novella Saccenti	Electro-Healing of polymer nanocomposites for aeronautical composite structures Francesca Aliberti, Raffaele Longo, Luigi Vertuccio, Marialuigia Raimondo, Andrea Sorrentino, Roberto Pantani, Liberata Guadagno	EFACA aircraft local and global emissions on a roadmap to ACARE goals Kateryna Synylo, Vitalii Makarenko, Andrii Krupko, Oleksandr Zaporozhets, Vadim	Life Cycle Assessment Activities in HERFUSE project Mario Antonio Solazzo, Deborah Neumann De La Cruz, Umberto Carofa, Lidia Travasco and Angela Vozella	Introducing a Safety Assessment to support the safe and efficient integration of launch and re-entry operations in Europe Lorenz Losensky, Tobias Rabus, Nicolas Fota, Maria Buzatu, Christopher Brain, Augustin Udristioiu	Data-Driven Modeling of Robot-Terrain Interaction for Terrain Classification and Enhancing Rigid Body Simulation Accuracy Malte Wirkus, Malte Langosz, Julian Liersch, Marc Otto
15:50 16:10	Exploring the Framework Technologies in Action: Interactive Demonstration and Open Q&A Andrea Mancini, Pascal Bertram, Patrick Ratei	Thermal design of a composite conformal LH2-tank for aviation Arne K. te Nijenhuis, Dylan Vogelsang, Wubbo de Grave, Robin Nieuwenkamp, Bram Noordman, Bert de Wit, Gerben van de Vrie, Rens Uebels	A Multi-Disciplinary Approach to Concurrent Aerostuctural and On-Board System Design for a distributed propulsion HER configuration Simone Mancini, Tim Klaproth, Reinhold Maierl, Ögmundur Petersson, Jean-Christophe Giret, Sylvain Béchet	Smart design of a Next Generation structural material based on carbon nanoparticles and epoxy matrix Luigi Vertuccio, Michellina Catouro, Marialuigia Raimondo, Liberata Guadagno	PROSPECTS FOR A MORE SUSTAINABLE AVIATION: ROAD MAP TOWARDS 2050 Maria ZAMARREÑO SUÁREZ, Rosa María ARNALDO VALDÉS, Raquel DELGADO-AGUILERA, JURADO, César GÓMEZ ARNALDO, Francisco PÉREZ MORENO, and Víctor Fernando GÓMEZ COMENDADOR	OVERCOMING CHALLENGES IN LCA OF NEW TECHNOLOGIES: AN OVERVIEW OF CURRENT ACTIVITIES TO FUTURE INTEGRATION IN AIRBUS DEFENCE AND SPACE Deborah Neumann de la Cruz, Valentin de Pablo, Julien Weber, Ariane Bouilly	A behavioral economics approach to demand management for the airport capacity problem Álvaro Rodríguez-Sanz, Luis Rubio Andrada	High-fidelity 3D reconstruction for planetary exploration Alfonso Martinez Petersen, Levin Gerdes, David Rodríguez-Martínez, Carlos Pérez-del-Pulgar
16:10 16:30	Exploring the Framework Technologies in Action: Interactive Demonstration and Open Q&A Andrea Mancini, Pascal Bertram, Patrick Ratei	Preliminary Analysis of Compact Heat Exchanger Geometries for Fuel Cell Aircraft Propulsion Systems Niccolo' Ferrari, Bernhard Gerl, Matthias Ronovsky-Bodisch, Mavroudis D. Kavalas, Fabrizio Czekalla, Martin Berens	Development and Integration of a Flight Dynamics module into the ODE4HERA Open Digital Platform Danilo Ciliberti, Agostino De Marco, Fabrizio Nicolosi		Closing Discussion: Prospects for meeting EU/ICAO green aviation targets Rosa María Arnaldo Valdes, María Zamarreño	Life Cycle Assessment of Innovative Propulsion Technologies for Regional Aviation Felicia Molinaro, Marco Fioriti	ECHOES DES DSD Gabriel Garcia	EU-RISE: In-space assembly and maintenance robotics for future space ecosystems Montse Diaz-Carrasco, Lucia Ballesteros, Marc Manz, Thierry Germa, Manuel Meder, Elie Allouis, Romain Cajoille, Thomas Secretin, Nikolaetta Triantafyllopoulou

16:30	17:30	Poster Session Tour #1
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17:30 19:00	General Assembly EASN Association
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End of the 1st Day

Innovation in Aviation & Space towards sustainability today and tomorrow

Final Detailed Agenda

DAY 2 | 15.10.2025

8:30 - 17:30	Registration								
ROOM	A-021								
9:30 - 10:00	KEYNOTE SPEECH Shaping the aviation of tomorrow by Dr. Markus Fischer German Aerospace Center (DLR), Divisional Board Member for Aeronautics								
Chaired by	Prof. Andreas Strohmayr Conference co-Chairman								
10:00 - 10:30	Coffee Break								
ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027	
Session Title	Digitalization of Manufacturing, Sustainable Manufacturing and MRO	Propulsion System Advancements for the Near Future PART I	Clean Aviation Hybrid Electric Regional Aircraft - Roundtable Discussion with the involvement of HERA, HERWINGT, HECATE, ODE4HERA, HERFUSE	Production of Aerospace Components via Metal Additive Manufacturing: Research Challenges and Industry Perspectives	FALCON : Foreseeing the next generation of aircraft: hybrid approach using lattice Boltzmann, experiments and modeling to optimize fluid-structure interactions	Sustainability and circularity in the design process in aviation	Safety and environment in ATM	The ASTRAIOS Project – Building a Future-Ready Space Workforce in Europe	
Session Chair	Dr. Baris Caglar (TU Delft, Netherlands)	Dr. Christos Mourouzidis (Cranfield University, UK)	Mr. Vittorio Ascione (Leonardo, Italy)	Dr. Spyros Diplas (SINTEF, Norway)	Prof. Julien Favier (Aix-Marseille University, France)	Prof. Angelos Filippatos (University of Patras, Greece) & Ms. Ligelia Paletti (DLR, Germany)	Prof. Octavian Thor Pfeifer (University Politehnica of Bucharest, Romania)	Dr. Mari Kalehmainen (ESF, France)	
10:30 - 10:50	Digitalization in composite manufacturing and its impact on sustainability (TOSCA Project) Christian Eltzinger	Hydrogen Engine – Engine oil systems heat modelling for fuel conditioning Benoit Said, Christos Mourouzidis, Pavlos Rompokos, Adrian Iordai, Ioannis Roumeliotis, Vassilios Pachtidis	HERA Project Giuseppe Piscopo	AI-based MMC development for aerospace applications Angelos Evangelou	A coupled ProLB-Nastran solver for fluid-structure interaction in aeronautics Robin Jaeger, Jérôme Jacob, Isabelle Cheylan, Denis Ricot, Yves Deland, Julien Favier	Circularity performance assessment of novel aircraft configurations L. Paletti, V. Charalampopoulos, D. Markatos, A. Filippatos, A. Pohny, G. Wende	Insights into Conflict Detection & Resolution Integration in AI-Enhanced Air Traffic Control systems Javier A. Pérez-Castán, Álvaro Albaldá Perera, L. Pérez-Sanz, Lidia Serrano-Mira, Tomislav Radišić and Ivan Tukurčić	Introducing ASTRAIOS: Goals, Vision, and Impact Mari Kalehmainen	
10:50 - 11:10	Automated Tape Laying process monitoring for optimizing insitu consolidation of next-generation aerostructuring (COMPSTAR Project) Pablo Romero Rodríguez	Influence of Variable Guide Vane angle on compressor surge events Sarah Marokky, Sajal Kisson, Lucas Powsey, Christos Mourouzidis, Vassilios Pachtidis	HERWINGT Project Sebastian Pellicer	Microstructural Engineering of AM materials Christos Sofras	Efficient Wall-Modelled Large Eddy Simulation for Fluid-Structure Interaction using Homogenized Hybrid Recursive Regularized Lattice-Boltzmann Methods Fedor Bukreev, Adrian Kummerländer, Stephan Simonis, Mathias J. Krause	Writing well-formed requirements for the successful design of sustainable long-range aircraft: a structured approach Luca Boggero, Harry Pshoyos, Dionysios Markatos, Ligelia Paletti, Gerko Wende, Angelos Filippatos, Björn Nagel	Global Impact of Aviation Controls Octavian Thor Pfeifer, Cristian Emil Constantinescu	Mapping and Curating Space Education: From ASTRAIOS Educational Web Catalogue to Newly Developed Training Materials Yolla Al Asmar	
11:10 - 11:30	Leveraging Photonic Integrated sensors and vibrirom formulations in induction welding to advance composite aero structures (PLEIADES Project) Harry Zervos	Enhanced Shaft Power Transfer Strategies in Geared Turbofan Engines, Highlighting Synergies with Conventional and More Electric Adaptive Cycle Systems Sara Alao, Ioannis Roumeliotis, Vassilios Pachtidis, Christos Mourouzidis, Pavlos Rompokos, Raj Ghelani, Sajal Kisson	HERFUSE Project Fabrizio Leone	Qualification & Certification of Metallic Components Towards Aerospace Readiness Hilde Larsen	Pre-Experimental Aerodynamic Design Study for a High-Lift Wing Model under Rigid Conditions using WM-LES Lattice Boltzmann Method Malav Soni, Roland Ewert, Jan Delfs	Identification of Sustainability-related Stakeholder Needs and Requirements for the Conceptual Design of Future Long-Range Aircraft Dionysios Markatos, Harry Pshoyos, Ligelia Paletti, Luca Boggero, Bram Peerlings, Elise Scheers, Lukas Soffing, James Page, Spiros Pantelakis, Angelos Filippatos	AI-Driven Aviation Weather Forecasting: Enhancing ATM Resilience to Meteorological Disruptions Aniel Jardines	Mapping the European Space Workforce Heidi Thiemann	
11:30 - 11:50	Smart Manufacturing in AFP: Predicting Composite Quality Through Process Data (GENEX Project) Carlos Mallor	Weight optimization of intermediate heat transfer system for hydrogen fuel conditioning in aviation S. Kourtilis, I. Roumeliotis, C. Mourouzidis, P. Rompokos, V. Pachtidis	ODE4HERA Project Carlos Cabaleiro de la Hoz		Towards Automatic Code Generation of Adjoint Lattice Boltzmann Methods for Fluid-Structure Interaction Adrian Kummerländer, Shota Ito, Fedor Bukreev, Stephan Simonis, Mathias J. Krause	Towards a European Flying Testbed – Governance models and funding strategies Harry Pshoyos, Thomas Kalampoukas, Dionysios Markatos, Pierluigi Iannelli, Lorenzo Pellone, Marco Ambrust, Andreas Strohmayr, Spiros Pantelakis, Angelos Filippatos	Transitioning Ground Handling Fleets Towards Low-Emission Operations at Airports Raquel Alonso-Pedrero, Miguel Muñoz-Ortiz, Yash Raka	Skills Gap Analysis in the European Space Sector: Educational, Demographic, and Strategic Insights from ASTRAIOS Christie Maddock	
11:50 - 12:10	Multiscale Machine learning approaches for industrial scale simulation of composite manufacturing processes (DIDEART Project) David Dumas	Application of the Pseudo-Spectral Time-Marching method to fan design Jesus Mateos-Garcia, Roque Carral	HECATE Project Daniel Izquierdo Gil	Roundtable Discussion Ana Maria Fernández, Hilde Larsen, Christian Leinenbach	Surrogate model for fluid-structure interaction using latent space representation Jean-Baptiste Labro, David Zarzoa, Jérôme Jacob, Julien Favier	Advancing Sustainable Product Development in aviation: the SUSTAIN Project Pauline Léonard	Strategic Fuel Planning for Aerodynamic Formation Flight: Quantifying Delay Flexibility for Rendezvous Success Majed Swaid, Volker Gollnick	Pathways into Space: Real Voices and Journeys from the ASTRAIOS Project Grazia Fiore	
12:10 - 12:30	Hyperconnected simulation ecosystem supporting probabilistic design and predictive manufacturing of next generation aircraft structures (CAELESTIS Project) Cristian Builes Cárdenas	Architecture exploration and whole engine design study for free piston integrated Composite Cycle Engine Yu-Hsuan Lin, Florian Winter, Alexandros Kostas, Fabio Wittgall, Arne Seitz	Roundtable Discussion		Cinematic visualisation of high-fidelity CFD simulations Ondrej Meca, Tomas Brzabohaty, Lubomir Riha	Comparison of Metallic and Composite Hydrogen Storage Tanks Using Life Cycle Assessment in Ecodesign Andrea Peltersen Hellesen, Angelo D. La Rosa, Sofianos Grammatikos	Preliminary Study on the Impact of the Ad Hoc Separation Concept in Free Route Airspace Lidia Serrano-Mira, Marta Sánchez-Aguilera Rancero, Javier A. Pérez-Castán, Eduardo S. Ayra, María Pérez Maroto, L. Pérez-Sanz	Environmental, Social and Governance Practices within the European Space Sector. Key Insights from the Peer-to-Peer Learning Workshop Series and the ASTRAIOS Business Community Cristina Ramos	
12:30 - 13:30	Lunch Break								
ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027	
Session Title	CAELESTIS: Advancing Aviation through Virtual Prototyping, Lightweight Materials, and High-Performance Computing PART I	Propulsion System Advancements for the Near Future PART II	Clean Aviation Technologies for Hybrid-Electric Regional Architectures PART I	Advanced Manufacturing Technology for Aeronautics and Space PART I	The OVERLEAF Final Event: Advancements in Liquid Hydrogen Storage Technology and Future Scenarios	Sustainability and circularity in the manufacturing process in aviation	From sensors to systems. Navigation & Control PART I	Satellite Front-End Electronics	
Session Chair	Mr. Cristian Builes Cárdenas (AIMEN, Spain)	Dr. Christos Mourouzidis (Cranfield University, UK)	Mr. Sebastian Pellicer Solomayor (Airbus Defence and Space SA, Spain)	Prof. Mario Guagliano (Politecnico Di Milano, Italy)	Ms. Emma Celeste Lope Reluerto (Acuturi, Spain)	Dr. Elias Koumoulos (IRES, Belgium) & Prof. Angelos Filippatos (University of Patras, Greece)	Prof. Cezary Szczepanski (Warsaw Institute of Aviation, Poland)	Prof. Ernesto Limiti (University of Roma "Tor Vergata", Italy)	
13:30 - 13:50	CAELESTIS Introduction & Overview Cristian Builes	Elaboration and Evaluation of Concepts for Battery Modules in Electrified Aircraft Propulsion Systems Alperen Oguzhan Altun, Florian Franke and Stefan Kazula	Innovative technologies for fuselages and empennages Tamara Rodríguez Gómez	Sustainable and efficient manufacture for hollow propeller blades from carbon fiber-reinforced plastic and lost salt core in HP-RTM Process Feiyun Zhang, Michael Wilhelm, Tatjana Vaccaro, Markus Reeb	OVERLEAF introduction, Hydrogen Tank Overview & Concept Emma Lope Reluerto	Developing a Sustainable Product Footprint Declaration (SPFD) system in the aerospace industry for enhanced sustainability communication and transparency Johanna Nylander	UAV Guidance with Concurrent Evasion and Terminal Angle Constraints Ekrem Berkcan Baybek, İker Murat KOÇ	GaN Solid-State amplifier developments for multi-orbit broadband active-antenna front-ends Gorka Rubio-Cidre, Mario Ramirez-Torres, Alvaro Morso-Granero, Francesco Scappaviva, Alessio Bianchi, Andrea Bondi	
13:50 - 14:10	CAELESTIS: a data-driven framework for scaling-up permeability prediction in composite materials Guillaume Broggi ML-based method for in-situ modification of the fiber placement process for improved impregnation in RTM Ivan Ruiz Cozar	Sensitivity of LH2 aircraft refuelling to process and storage tank parameters Francesco Mastropiero, Enrico De Bello, Damiano Tormen, Michele De Gennaro	Multipar high integrated structures Rubén Ródenas Vicente	Unlocking the Future of Aircraft Manufacturing: The Economic and Environmental Benefits of Laser Patterning for Surface Enhancement of Aircraft certified alloys Luis Antonio Sanchez de Almeida Prado, Selim Coskun, Anne-Laure Cadène, Ramón Angel Antelo Reguengo, Jake Carter, Kyle Ito, Minak Park and Vassilio Zorba	AUTOMATED MANUFACTURING OF THERMOPLASTIC COMPOSITES FOR HYDROGEN STORAGE Xabier Perez Ferrero, Prasad Shimpi, Beatriz Gomes, Ivette Coto, Mario Fernandez Pedreira, Pablo Romero Rodriguez	Assessing the costs and environmental impacts of a cryogenic H2 tank demonstrator Christian Bülow, Karina Kroos	The aviation equipment verification process on the example of the PFM-GA fuel gauge Damian Iżewski, Nazar Szabon	High-Power RF Solid-State GaN Amplifiers for Spaceborne Applications Francisco de Arriba, Lorena Cobria, Rocio Garcia, Jorge Madrazo, Ismael Traseira, Irene Martíñ, Reinel Marante, Alejandro Pila	
14:10 - 14:30	*HPC-based simulation ecosystem using workflows *An HPC-enabled framework for synthetic data generation and large-scale mechanical simulations of composite structure Gerard Guillaumet	Cryogenic Propulsion Systems for Hydrogen-Electric Powered Aircraft Christian Benheimerl, Bernd Eckardt, Florian Bayer	Hybrid electric overall powerplant integration Santiago Lopez Gardo	Influence of AFP Defects on Damage Tolerance: Effect of Coupon Leith Afial, D.M.J Peeters, J.A. Pascoe, R.C Alderliesten	PA11 CF Composite Material for Cryogenic Tank Gilles Hochstetter	Life Cycle Assessment and Costing of Thermoplastic Composite Aircraft Component with Digital-Assisted Repair Technologies Evangelia Stamkopolou, Anastasia Gkika, Emmanuil Markakis, Fotineli Petraki, Elias P. Koumoulos	Introducing Adaptation And Artifact-Based Process Validation Into Avionics Certification Process Sebastian Rutkowski, Ewelina Szpakowska-Peas	Design, Validation, and Integration of a Ka-Band Receiver System Using COTS Components for Satellite Front-End Applications Nieves Garcia, Aintzane Lujambio, Beatriz Ayia, Luisa de la Fuente, David Lobato	
14:30 - 14:50	Bridging Experimental and Numerical Testing for Mechanical Performance Assessment of the Outlet Guide Vane Using a Building Block Approach Aravind Sasikumar	Solid Oxide Fuel Cell Performance and Sizing Model for Novel Aircraft Propulsion Conceptual Design Christopher Warsch, P. Maas, A. C. Mejias, F. Winter, M. Fikry, A. Seitz, M. Homung	Electrification challenges of regional aircraft Daniel Izquierdo Gil	Innovative Heating and Automated Welding of Vitrimer-Based Composites for Aerospace Applications Enrico Chemello, Massimiliano Rusello, Mohsen Bahrani	Comparison of Metallic and Composite Hydrogen Storage Tanks Using Life Cycle Assessment in Ecodesign Andrea Peltersen Helåsen	Material-based Aerostructural Optimization of High-Aspect-Ratio Wings for reducing Life Cycle Environmental Impact Shantanu Sapre, Ousmane Sy, Joseph Morlier, Emmanuel Benard, Christian Gogu	Countering Drones with Autonomous Cooperative Drone Swarms via Multi-Agent Deep Reinforcement Learning Ender Çelín, Cristina Flores, Juan Carlos Crespo, María Royo, Ail Arshadi, Alvaro Bello, Victoria Lapuerta	RF transmit and receive MMIC front-end for V-band inter-satellite link Patrick Longhi, Mattia Riccardi, Andrea Ricci, Giulio Venanzoni, Rocco Giottré, Francesco Villi, Ernesto Limiti	
14:50 - 15:10	Connecting AFP to RTM through a permeability surrogate model and processes simulations of an Outlet Guide Vane with uncertainty management Tanguy Moro, Francisco Serrano	Numerical Modeling of Annular-Mist Flow Within a Water Recovery Unit Georgios Iosifidis, Richard Haidl, Jonathan Glaser, Koji Hasegawa, Bernhard Weigand	Active wing control Alan Serena	Enhancing composite joining in aerospace: role of energy directors in ultrasonic welding Mohsen Bahrani, María Juanatey-Muradas, Massimiliano Rusello, Enrico Chemello	Building Block Approach and validation process for the structural design of type V tank for Liquid Hydrogen Quirze Abella Travesset, Jordi Renart Canalias, Albert Turon Travesa, Jose Manuel Guerrero Garcia, Pau Miquel Roura	Rigid Polyurethane Foams for Cryogenic Insulation – Introducing Phase Change Materials into Sustainable Laima Vevere, Beatrice Sture-Skela, Vanesa Dhaliwalla, Vladimir Yakushin, Ugis Cabulis	Development of Altitude Control Algorithms for OPS-SAT: A Comparative Study of PID and Fuzzy Controllers Karl Olle, Cristian Flores, Juan Carlos Crespo, María Royo, Ail Arshadi, Alvaro Bello, Victoria Lapuerta	UC3M ST3L4ARsa1T "Boira" CubeSat: On-Board Computer Development Cristian Suero, Andrés Marcos	
15:10 - 15:30	*Characterization of dissimilar Titanium/Carbon fiber unions in One-shot Resin Transfer Molding for aeronautic components *Transforming Aircraft Design in CAELESTIS: Digital Twins in Action Cristian Builes Discussion of Future Use Estelle Castaner, Sibin Saseendran		Wing Tunnel model for gust response and flutter experiments Francesco Toffol		Final Results and Conclusions Emma Lope Reluerto			The camera systems of the small satellite ROMEO Dominik Storzmann	
15:30 - 16:00	Coffee Break								
ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027	
Session Title	CAELESTIS: Advancing Aviation through Virtual Prototyping, Lightweight Materials, and High-Performance Computing PART II	Next Generation Propulsion Systems PART I	Clean Aviation Technologies for Hybrid-Electric Regional Architectures PART II	Advanced Manufacturing Technology for Aeronautics and Space PART II	Better Controls Mitigation (BeCoM Project)	Are we ready to design for sustainability?	From sensors to systems. Navigation & Control PART II	Satellite Systems in the 6G network	
Session Chair	Mr. Cristian Builes Cárdenas (AIMEN, Spain)	Prof. Andreas Strohmayr (University of Stuttgart, Germany)	Mr. Sebastian Pellicer Solomayor (Airbus Defence and Space SA, Spain)	Prof. Mario Guagliano (Politecnico Di Milano, Italy)	Assoc. prof. Feijia Yin (TU Delft, Netherlands)	Prof. Sophie Hallstedt, Prof. Ola Isaksson (Chalmers University of Technology, Sweden) & Prof. Timaloeon Kipourou (Cranfield University, UK)	Prof. Cezary Szczepanski (Warsaw Institute of Aviation, Poland)	Prof. Ernestina Cianca (University of Roma "Tor Vergata", Italy) & Prof. Beatriz Soret (University of Malaga, Spain)	
16:00 - 16:20		A method for installation losses in preliminary design Ioannis Francesco Antonio D'Aniello, Tommaso Scuderi, Donato de Rosa, Anna Occhipinti	Immunity Analysis of Hydrogen Fuel Cell Stack for Aeronautical Applications Giovanni Fasulo, Simone Gallas, Hervé Denoyer, Oskar Ekblad, Giancarlo Kosova and Mattha Barbanino	Virtual Manufacturing Finite Element Framework for Defect Prediction in Resin Impregnation Processes Giorgio Maria D'Orazi, Antonio Raimondo, Andrea Cini	Introduction of BeCoM Project Feijia Yin		Testing Spacecraft Attitude Control with Fuzzy Logic in a Relevant Environment: Insights from the FuzzyBuzz Experiment Ali Arshadi, María Royo, Juan Carlos Crespo, Cristian Flores, Karl Olle, Ana Laverón, Victoria Lapuerta	Satellite and Mobile Network Operator Cooperation Models for Efficient Handover in 5G-TN NTN Tedoras S. Abdu, Eva Lagunas, Flor Ortiz, Jorge Querol, Marcelle O. K. Mendonca, Ons Aouedi	
16:20 - 16:40	Voices in Horizon Europe Aviation Research Janusz Poplawski, Carlos Mallor Turon, Emma Celeste Lope Reluerto, Pablo Rodríguez	Future High-Efficient Engines with Solid Oxide Fuel Cell - Gas Turbine Coupling: System Modelling and Comparison of Directly and Indirectly Coupled SOFC-GT-Systems P. Köhler, J. Hellmann, A. Taissi, S. Kabelac, M. Richter, M. P. Heddich	High-Efficient and Compact Electronic Controlled Fuel Cell Air Supply System Nejat Mahdavi, R. De Maglie, A. Lacoste	The Cold Spray Process for Structural Repair and Additive Manufacturing in Aeronautics M. Guagliano, A. Heydari, A. Ardeshiri, S. Bagherifard		Qualification of Water Vapor Observations in the Aircraft Flight Region as Part of the BeCoM Project Philippe Keckhuf, Dunya Alradadawi, Guillaume Payen, Siyadara, Jean-Charles Dupont, Antoine Laroche, Alexis Poignard, Jean-Luc Baray, Nadège Montroux, Florian Mandija, Abdanour Irbah, Florian Lapogue, Michael Sicaud, Alain Sarkissian, Alain Hauchecorne, Milena Martić	Development of a microsatellite 3- Reaction Wheel ADCS Flatsat: the MFLIPS project David Gómez Torija, Ghassam Sharifi, Andrés Marcos	Multilayer Satellite Constellation Design for Multipurpose Applications Ernestina Cianca, Mansoor Jamal, Tommaso Rossi, Mauro De Sanctis	
16:40 - 17:00		Controlling a Dynamic Fuel Cell System for the Propulsion of a Regional Aircraft Niclas A. Dorfauer	A Parametric APDL-Based Workflow for Efficient Structural Design of a Civil Aircraft Tailplane C. Palumbo, G. Perillo, A. Sodano, D. Cristillo, M. Belardo, A. Chiariello	A Modular Assembly Concept for Large-Volume CRFP Hydrogen Tanks for Passenger Air-craft Karina Gömer, Benjamin Diehl, Simon M. Kothe	Assimilation of satellite, camera and air borne cloud and humidity observations in the global data assimilation system of the German Weather Service Alexander Cress		Beacon Number Optimization in Deep-Space Optical Navigation Abdurahim Muratoglu, Halil Erkin Söken	Using a MeGa Constellation Emulator (MECO) to Emulate IP-Based Satellite Networks Stefano Salasno, Max Miralib, Cesare Roselli, Luca Fiscariello, Ernestina Cianca, Mauro De Sanctis, Lorenzo Bracciale, Andrea Mayer, Pierpaolo Larelli	
17:00 - 17:20	Panel Discussion: "Beyond CAELESTIS: Integrating Virtual Design, Lightweight Materials & HPC for the Future of Aviation" Janusz Poplawski, Julian de Marchi, Luca Briganti, Cristian Builes	Methodology for Combined Propulsion System Sizing and Aircraft Performance Evaluation Philipp Maas, Christopher Warsch, Arne Seitz, Mirko Hornung	Performance Analysis of a Hybrid-Electric Regional Aircraft Demonstrator Using JPAD and Simcenter Amesim Vincenzo Cusati, Mario Di Stasio, Fabien Reifno, Fabrizio Nicolosi, Rocco Gentile, Valeria Vercella	MODELING OF FULL SCALE ROTOR BLADE WITH ACTIVE TWIST CONTROL Andrejs Kovalsovs	Comparison of aircraft trajectory optimization strategies reducing contrail formation under different weather conditions Federica Castino, Volker Grewe, Hiroshi Yamashita, Katarina Grubbe Hildebrandt, Feijia Yin	Workshop	Identification of Requirements for a Simulation Framework to Support Development and Testing of Integrated Navigation Systems Krzysztof Borodacz	Integrated Ground-UAS and UAS-Satellite Communications in 6G: Architecture and Challenges in Terrestrial-Non-Terrestrial Network Convergence Anastasia Yastrebova-Castillo, Sami Tacklin, Heikki Kokkinen, M. Asad Ullah, Marko Höyhjä, Mikko Majanen	
17:20 - 17:40		Experimental Validation and Numerical Simulation of a High-Efficiency Composite Propeller for a Medium-Weight VTOL UAVs Małgorzata Woźniak, Przemysław Wyżkowski, Mirosław Magda, Włodzisław Bałciński	Protecting High-Voltage power distribution center for More Electric Aircraft G. Barroso de Maria, G. Robles, J.M. Martínez Tarifa, J. Escribuela, D. Izquierdo, G. Solinero	Manufacturing of a Thermoplastic Drop Nose Device within the frame of CLEAN AVIATION Ramón Juncio Molpierrez	Integrating climate policies into air transport operations: Challenges, Risks, and Impacts Malte Nikolaß, Z. Zengertling, K. Kölker, M. Mendiguchia Meuser, T. Ehlers, A. Lau, R. Eichinger, K. Dahlmann, S. Matthes, V. Grewe, F. Yin, A. Stefanidis, R. Roelger, F. Crova		Enhancing Pilot Situational Awareness through an Eye-Tracking Assisted Adaptive Breadcrumbs Bleftharia Lito Michanetzi, Angelos Fotopoulos, Dimosthenis Mitsis, Michalis Xenos	Autonomous Earth Observation Constellation for Intelligent Target Scheduling Antonio Manuel Mercado-Martínez, José Blanco-Chica, Antonio Jurado-Navas, Beatriz Soret	
17:40 - 18:00	Closing Remarks	Degradation-Aware Preliminary Sizing and Control Framework for Hybrid Fuel Cell Battery Systems in Regional Aircraft Paolo Ailberiti, Emina Hadžialić, Marco Sorrentino, Helmut Kühnelt	Actuation system design for a compliant morphing trailing edge flap at demonstrator level M. Chiara Novello, B. Galasso, L. Fretoloso, S. Ameduri		From uncertainty to confidence intervals for mitigation potentials of climate-optimized aircraft trajectories Sigrun Matthes, Simone Diettmüller, Patrick Peter, Zorah Zengertling, Maximilian Mendiguchia Meuser, Benjamin Lührs, Alexander Lau, Abolfazl Smorgh, Oumarou Moussa Bala, Manuel Saler, Katarina Hildebrandt, Federica Castino, Feijia Yin				
20:00	EASN Gala Dinner								
End of the 2nd Day									

15th EASN International Conference on
Innovation in Aviation & Space towards sustainability today and tomorrow

Final Detailed Agenda

DAY 3 | 16.10.2025

8:30	18:00	Registration
ROOM	A-021	
9:00	9:30	KEYNOTE SPEECH Impact of space technologies for sustainability and resilience by Mr. Massimo Claudio Comparini LEONARDO, Managing Director of Space Division
Chaired by	Prof. Ernesto Limiti University of Roma "Tor Vergata"	
9:30	10:30	DISCUSSION PANEL Sustainability in Space Technologies, Applications & Systems
Panelists	Prof. Ernestina Cianca University of Roma "Tor Vergata", Mr. Josef Kaspar VZLU AEROSPACE, Board Chairman & CEO, Dr. Kai Lindow Fraunhofer IPK, Director Digital Engineering, Mr. Miguel Angel Molina GMV, Deputy General Manager Space Systems, Mr. Andrea Vena ESA - European Space Agency Chief Climate and Sustainability Officer	
Moderated by	Prof. Ernesto Limiti University of Roma "Tor Vergata"	

ROOM	A-021	A-001	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Advancing Collaborative Defence Innovation: Research Insights from EDF-supported Projects	Next Generation Propulsion Systems PART II	Clean Aviation Technologies for Thermal Management PART I	Materials – Manufacturing – Structures PART I	Multifunctional structures with quasi-solid-state Li-ion battery cells and sensors for the next generation climate neutral aircraft (MATISSE Project)	Advancing Sustainable Aviation: Integrating Innovative Design, Manufacturing and Digitalisation PART I	Innovation in UAVs: Advances in Design Methods Performance Enhancement and Emerging Technologies	Space Technologies PART I
Session Chair	Ms. Olga Eisman (ISDEFE, Spain)	Prof. Andreas Strohmayer (University of Stuttgart, Germany)	Mr. Guillaume Bourelly (Honeywell, Czech Republic)	Prof. Nikolaos Michailidis (Aristotle University of Thessaloniki, Greece)	Dr. Helmut Kühnelt (Austrian Institute of Technology (AIT), Austria)	Mr. Alexander Sorgenicht (Capgemini Engineering, Germany)	Prof. Pericles Panagiotou (Aristotle University of Thessaloniki, Greece)	Prof. Claas Othoff (University of Stuttgart, Germany)
11:00 – 11:20	Introduction and Overview Olga Eisman	Estimating the maintenance-related material cost for battery-powered aircraft propulsion systems Jan-Alexander Wolf, Robert Meissner, Ahmad Ali Pohya, Gerko Wende	CFD modelling of di-phasic refrigerant inside an aircraft Skin Heat Exchanger as a condenser for Hybrid-Electric Regional Aircraft Iván González-Nieves, Andrés Felgueroso-Rodríguez, Miguel Díaz-Barja	Structural Reliability Assessment of Compact Offset Strip-Fin Heat Exchangers for Hydrogen-Electric Aircraft Sahil Bhapkar, Sidharth Patkar, Markus Kober, Stefan Kozula	Introduction to the MATISSE project Helmut Kühnelt	Aircraft Interiors Reinvented - Data, Systems, and Sustainability in Action Felipe Leile	Assessment of C-Type Winglet Integration Impact on the Performance of a Fixed-Wing BWB UAV Stavros Kapsalis, Thomas Dimopoulos, Pavlos Kaparos, Georgios Iatrou, Pericles Panagiotou, Kyriakos Yakinthos	2U CubeSat Design to Provide Space-Based ICES Services Alex Ganau, Amílcar Rincon-Charris
11:20 – 11:40	EICACS: A standard framework for Collaborative Air Combat Miguel Enríquez Arosa, Raquel Delgado-Aguilera Jurado	Test results for a 200 kW two-phase pumped cooling system demonstrator for aerospace applications Henk Jan van Gerner, Sigurd Scholten, Charlton Castro, Georg Mühlthaler, Marcus-Benedict Buntz	Aeroacoustic Performance Evaluation of Mixed-Flow Fans for Next Generation Electric Regional Aircraft Pela Katsapoxaki, Dominik Christ, Ruben Heintandere, El Hassan Ridouane	STRUCTURAL MODEL OF A VERY LIGHT AIRPLANE FOR FLUTTER ANALYSES CONSIDERING PILOT'S EFFECT ON FLIGHT CONTROL SYSTEM Robert Rogalski	Structural battery development in MATISSE – from electrochemistry and cell concept to manufacturing and scale-up D. Popovici, L. Balic, D. Bresser, A. Gigl, M. Krammer, H. Kühnelt, S. Montes, L. Neidhart, S. Tschler, M. Vukсанovic, M. Wan, A. Beutl	Investigation of leading-edge dogtooth extensions on the low-speed aerodynamics of a BWB UAV Spyridon Antoniou, Petros Dimitrentis, Pericles Panagiotou, Kyriakos Yakinthos	Flow Characterization Around a Mars Rover Model at Extremely Low Reynolds Number J. Fernández-Antón, R. Bardera ; A.A. Rodríguez-Sevillano ; J. C. Matías-García and E. Barroso-Bardera	
11:40 – 12:00	EPIIC and Innovative Interaction Modalities Pablo Miguel Rodríguez Rey	Early-stage considerations of traction battery placement in small, commercial aircraft Annika Staats, Andreas Bardenhagen	Carbon Heating System: A Next-Generation Electrical Temperature Control System for Cabin Heating Marc Ahlburg, Josef Ostermayer, Markus Pollmann, Pela Katsapoxaki	Tangential Interpolation for the Operational Modal Analysis of Aeronautical Structures Gabriele Dessenza, Marco Civera, Oscar Elias Bonilla-Monrique	Safety aspects of structural batteries and smart multifunctional electrical energy storage Helmut Kühnelt, Alexander Beutl, Kristjan Rajnovic, Alexander Rykhov, Roberto Simmarano	Creating a smart data ecosystem to address evolving challenges in aviation Ben Joseph	Heterogeneous Vehicle Fleets for Advanced Air Mobility: Optimization across Metropolitan Demand Scenarios Ansgar Kirste, Eike Stumpf	From Ground to Orbit: Adapting CM8 Calibration Technology for Space Irene Sánchez-Ramos, F. J. Coss, J. Cubas, G. Pascual-García, L. Castells, E. Martínez-González, B. Barreiro, P. Vielva
12:00 – 12:20	NG-MIMA: The stage for the future of military integrated modular avionics in Europe Santiago Lozano Terol	Improve operating characteristics by exploiting speed variability of individually driven rotors in vaneless counter rotating axial compressor concepts for hybridised regional air- and rotorcraft application Jan Nitika, Dieter Peltzsch	The potential roles of 2-phase mechanically pumped loops (2F-MPL's) in Hybrid and Electrical Aircraft Thermal Management Johannes van Es, Julian Biesheuvel, Walter Blom, Charlton Castro, Aswin Pauw, Guilhem Delpu, Fatima Cherdouh, Essi Trejo Peimbert, Ricardo Gantus, Pierre Trollet, Guillaume Galzin, Laurent Labaste Mouhe, Vincent Dupont, Christian Popper	Comparison of selected compressive and tensile characteristics of four types complex porous structures made of INCT18 K. Monkova, G. A. Panagopoulos; P. P. Monka, M. Bouzount; Papadopoulos; A. I. Toulfatis	Damage tolerance of structural batteries integrated in sandwich structures under low velocity impact conditions Francesco Di Caprio, Monica Ciminella, Frederic Laurin	Sustainable production equipment thanks to new materials, modular design and intelligent connection Felipe Leile	Low-Speed Wind Tunnel Tests on a UCAY Model with Controls Hassan Aleisa, Konstantinos Kontis and Melike Nikbay	Optical analysis of an Origami inspired self-deployable baffle Ester Velázquez-Navarro, Diego Rodríguez-Díaz, Pablo Salano-López, Ruy Sanz, Tomás Belenguer
12:20 – 12:40	MYRIAD: Multi-source information system based on Remote sensing ai Analytics to support the strategic Defence domain Miguel Ángel Molina	Numerical investigation of unsteady fluid flow inside air cooling lines with fitted heat exchanger for electrified aero engines Prabhjot Singh, Florian Nils Schmitt, Sebastian Meerbild, Ralf Rudnik, Stefanie de Graaf	Modelling comparison of a Two-phase Mechanically Pumped Loop (2F-MPL) with a conventional water-glycol 1F-MPLs for Fuel Cell cooling in Thera4HERA Tim de Weijer, Johannes van Es, Julian Biesheuvel, Guilhem Delpu, Fatima Cherdouh, Essi Trejo Peimbert, Ricardo Gantus, Pierre Trollet, Guillaume Galzin, Laurent Labaste Mouhe	A Framework for Efficient Part-Scale Microstructure Prediction in Laser Powder Bed Ti-6Al-4V Using Combined Physics-Based Modeling and Machine Learning Surrogate Methods Anthony G. Spangenberg, Diana A. Lados	Assessment of structural battery system performance, integration, and scaling trends for aeronautical application Akshayan Sudharshan	Connecting data through AI and digital Continuity: Enabling a smarter, more sustainable aerospace industry Ben Joseph	Overview of flow control techniques for tactical Blended Wing Body UAVs Spyridon Antoniou	Improving flexibility in modular space robots: An adapter to connect a research-related electromechanical interface with a commercial one Jonas Benz, Wiebke Brinkmann, Mehmed Yüksel, Hilmi Kıcıoğlu, Utku Akinci, Jonas Eisenmenger
12:40 – 13:00	HYDEF: European Hypersonic Defence Interceptor Sergio Aladrén Alboreca		Design of a H2 conditioning system: heat transfer of fuel cell system waste heat with a two-phase mechanically pumped loop Arne K. te Nijenhuis, Aswin Pauw, Tim Luten, Roel van Benthem		Open Discussion	DPP: Enabling Circularity Through Digital Product Passports in Aerospace Joanna Steiner, Theresa Riedelsheimer		Mining the Moon and Asteroids: Building the Resource Infrastructure for a Sustainable Sunshade Architecture Maheswaran L. Anil A., Felicitas Leese

13:00	14:00	Lunch Break
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Room	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Ramp-up of Sustainable Aviation Fuels Production: Taking Stock of Ambition and Reality	Innovative electroactive morphing for disruptive future wing design towards long term sustainability	Clean Aviation Technologies for Thermal Management PART II	Materials – Manufacturing – Structures PART II	Synergies of Highly Integrated Transport Aircraft (Syntrac)	Advancing Sustainable Aviation: Integrating Innovative Design, Manufacturing and Digitalization PART II	Smart-IAM - towards smartly-integrated AI-driven sustainable mobility	Space Technologies PART II
Session Chair	Prof. Robert Malina (Hasselt University, Belgium)	Dr. Marianna Braza (CNRS, France)	Mr. Guillaume Bourelly (Honeywell, Czech Republic)	Prof. Nikolaos Michailidis (Aristotle University of Thessaloniki, Greece)	Prof. Sabine C. Langer (TU Braunschweig, Germany) & Prof. Stephan Staudacher (University of Stuttgart, Germany)	Mr. Alexander Sorgenicht (Capgemini Engineering, Germany)	Mr. Bartosz Dziugiel (ILOT, Poland)	Prof. Octavian Thor Pieter (University Politehnica of Bucharest, Romania)
14:00 - 14:20	Where do we stand with regard to global market scale up of SAF? <i>Alessandro Marulli, Sumit Maharjan</i>	Enhanced aerodynamic performance of transonic flow over an A320 morphing wing using Hi-Fi numerical simulation at Reynolds number of 4.5 million <i>J. Abou-Khalil, Asproulis A. Marout, R. El Akoury, Y. Hoarau, J.F. Rouchon, M. Braza</i>	Assessment of Heat Transfer and Fluid Flow Models for Low-GWP Refrigerants During Condensation and Boiling Inside Offset Strip Fins for the Next Generation Aeronautical Heat Exchangers <i>Nur Cobanoğlu, Elsi İrejo Peimbert, Damien Pailhou, Simone Mancini</i>	Thermal Degradation Model Towards Modular Biobased Thermoplastic Polymer-Natural Fiber Processing <i>Dimitrios Apostolidis, Niklas Lorenz, Baris Kurnur</i>	Extending engine performance modelling for highly integrated transport aircraft <i>Yuan Y., Staudacher S., Iyer N., Friedrichs J.</i>	Overall Design and Technology Integration for a 9-Seater Hydrogen-Electric Commuter Aircraft Concept <i>Sören Kolb-Geßmann, Thomas Zill</i>	Smart Anti-icing Solutions for UAVs: Enhancing Safety and Operational Endurance in Cold Weather Conditions <i>Paulina Woroniecka, Maciej Osiewicz</i>	Small launchers design during conceptual phases <i>Rubén González-González, Andrés García-Pérez, Gustavo Alonso Rodrigo</i>
14:20 - 14:40	Challenges and Opportunities for the Market Scale Up in Emerging and Developing Economies <i>Francis Mwangi, Robert Malina</i>	Influence of inclusions morphology on the frequency response of a piezoelectric bimorph actuator made of a PVD/PTI-SA composite <i>Salah Ebazzazi, J.P.M. Correia, Wiyao Azizi, Said Ahi</i>	Integration of functional mock-ups into digital twins of aircraft thermal management systems <i>Tobias Reitsch, Corentin Lepais, Raphael Gebhart</i>	Characterizing fatigue delamination growth in multidirectional CFRP laminates <i>John-Alan Pascoe, Davide Biagini, Francisco Monticelli, Yasmine Moshé</i>	From Source to Immission: Modeling the Acoustic Chain for Highly Integrated Transport Aircraft <i>Sabine Langer, Etzad Megat, Michael Pitzal, Mark Schneider, Juliette Thoma, Mingli Xu, Christina Appel, Jan Dells, Johann Groß, Manuel Keßler, Tobias Ring</i>	uqStudio: A Tool Supporting Uncertainty Quantification in Multidisciplinary Design of Transportation Systems <i>Tawfik Ahmed, Marko Alder</i>	Smart-IAM - towards smartly-integrated AI-driven sustainable mobility <i>Bartosz Dziugiel, Adam Liberacki</i>	Conceptual study of European Maritan ratoncraft with capability to transport passenger or load for future mars missions <i>Jakub Kocjan, Robert Rogalski, Łukasz Kizkowiak</i>
14:40 - 15:00	Effect of Sustainable Aviation Fuel prices on airlines' operating results <i>José Jaume, Gustavo Alonso, Arturo Benito</i>	Reduced Order Modelling by means of Proper Orthogonal Decomposition and Machine Learning for aerodynamic turbulent flows <i>Nils Maynard, Abdelrahmane Marout, Jacques Abou Khalil, Rajes El Akoury, Yannick Hoarau, Jean-François Rouchon, Marianna Braza</i>	Water-Evaporation Supported Fuel Cell Cooling Architectures for Aircraft <i>Raphael Gebhart, Luis Weber, Franciscus L.J. van der Linden</i>	Thermoset curing and ply drop effect on mechanical performance of composites <i>W.M. van den Brink, M. Post, N. van Hoorn, M. Nawijn, G. Allegri</i>	Engine-Airframe Integration – From Fraude Theorem to Numerical Flow Simulation <i>Jan Hartmann, Stephan Staudacher</i>	Electrical System Architectures for Future Electric Aircraft <i>Andrea Reindl, Francisus van der Linden</i>	Evaluating the Integration of Advanced Air Mobility into Intermodal Transportation Systems A System of Systems Simulation Approach <i>Nabih Naeeem, Nazikan Cigal, Prajwal Shiva Prakasha, Björn Nagel</i>	Combining Life Support Systems with Digital Twins: A new potential? <i>Felicitas Leese, Claas Olthoff</i>
15:00 - 15:20		Spanwise travelling wave morphing trailing edge around an A320 wing through numerical simulation <i>Clément Rouaix, Horia Hangan, Marianna Braza</i>	Scaled test program strategy for skin heat exchanger used in thermal management for Hybrid Electric Regional Aircraft <i>Benigno J. Lázaro, Ezequiel González-Martínez</i>	Modal identification of a fighter jet aircraft via matrix-less tangential interpolation <i>Mikel Janices Chamero, Gabriele Dessano, Marco Civera, Oscar E. Bonilla-Montañique</i>	"New Work" in Aerospace Sciences – Two Years of Experience in the CRC Syntrac <i>Tobias Ring, Stephan Staudacher</i>	Flying laboratory for testing electric propulsion systems at various altitudes <i>Cezary Galinski</i>	Centralized Landing Flow Merging for Drones Using Deep Reinforcement Learning <i>Aleksandr Sasha Vlasikin, Jan Groot, Emmanuel Sunil, Dennis Nieuwenhuisen, Joost Ellerbroek, Jacco Hoekstra</i>	A Systematic Review of Circularly and Sustainability Strategies in the Space Industry <i>Joanna Steiner, Kai Lindow</i>
15:20 - 15:40	Open Discussion	Numerical simulation and physical analysis of the flow around an A320 wing prototype: electroactive morphing through waves actuation <i>N. Maynard, X. Delon, R. El Akoury, J. Abou-Khalil, J.F. Rouchon, M. Braza</i>	Optimization of the Bleed System performance through the integration of a Jet Pump to mix high-pressure (HP) and intermediate-pressure (IP) port bleed air <i>Ralf von Frieling, Juan Tomas Prieto-Padilla, Vad Sivasharmugam, Sijmen Zandstra</i>	QUALIFICATION PROCESS FOR ADDITIVE MANUFACTURED METALLIC CONNECTING FLANGES FOR SPACE LAUNCHER <i>S. Franchitti, R. Borrelli, F. Di Caprio, G. Buonaiuti, A. Squillace</i>	Communicating Scientific Research: Introduction to a Case Study of Public Relations Implementation in the Syntrac Project <i>Rabea Morrison, Andreas Strohmayr, Kathrin Schulte</i>	AI Assistant for Rapid Modelling and Design of Aircraft in XR environment <i>Utkarsh Gupta, A.H. Riaz, Sergio Jimeno</i>	A Web-Based Tool for Mission Planning and Risk Assessment of UAS Operations <i>Stefano Primaticci, Gianluca Scopelliti</i>	Development of an Iodine Feeding System for Space Applications <i>Carla Guidi, Carla Guidi, Mariuel M. Saravia, Luca Bernazzani, Alessio Ceccarini, Fabrizio Paganucci, Enza Panzardi, Elia Lanci, Marco Mugnai, Nils Gerrit Kottke</i>
15:40 - 16:00		Numerical investigation of the impact of embedded flapping actuators on wake dynamics and aerodynamic performance of a reduced-scale A320 airfoil in take-off and landing conditions <i>R. Gauthier, J. Abou-Khalil, A. Marout, Y. Hoarau, M. Braza, J. Vos</i>	Design and Analysis of a Baseline Fuel Cell Cooling System in a Conceptual Aircraft Design Framework <i>Philip Balacek, Angel Garrmilla Manzano</i>		Off-Design Assessment in Preliminary Aircraft Design with Actual Operational Data <i>Jakob R. Schillenhardt, Yuan Yiwen, Jonas Mangold, Stephan Staudacher, Andreas Strohmayr</i>			ECHOES: The Feasibility of Space-based VHF Communications <i>Gabriel Garcia Rodriguez</i>

16:00	17:00	Coffee Break & Poster Session Tour #2
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Room	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Hydrogen Aircraft Design and Application	AI-based methodologies for aircraft health management	Clean Aviation Technologies for Thermal Management PART III	Recent advances in SHM for Aeronautics: from sensor data to predictive maintenance	Green Deal Lighthouse Airports, The Final Sprint	Advancing Sustainable Aviation: Integrating Innovative Design, Manufacturing and Digitalization PART III	Single Pilot Operations (SPO) Technologies	Digital Engineering for Innovation in Aviation and Space PART I
Session Chair	Mr. Fabian Peter (Bouhaus Luftfahrt, Germany)	Prof. Dimitrios Zarouchas (TU Delft, Netherlands) & Prof. Theodoros Loufas (University of Patras, Greece)	Mr. Guillaume Bourelly (Honeywell, Czech Republic)	Mr. José Manuel Royo (ITA, Spain)	Ms. Ella Soltani (To70 Aviation, Belgium)	Mr. Alexander Sorgenicht (Capgemini Engineering, Germany)	Dr. Vittorio Di Vito (CIRA, Italy)	Dr. Shubham Shubham, Dr. Andrea Spinelli & Prof. Timoleon Kipouras (Cranfield University, UK)
17:00 - 17:20	RESULTS OF THE H2AVIA PROJECT - POTENTIAL OF HYDROGEN FOR GLOBAL AVIATION <i>Fabian Nicolas Peter, M. Engelmann, M. Fikry, L. Moser, C. Warsch, R. Baldaras, A. Muslic, E. Erden, M. Hornung, T. Wetsch, F. Schüttke, E. Stump, S. Kakkar, W. Heinze, R. Radespiel, T. Bielsky, V. Kriewall, F. Thielecke, N. Moebbs, A. Strohmayr</i>	Deep learning for SHM of composite structures <i>Gianmà Stamatiolas, Dimitrios Zarouchas, Theodoros Loufas</i>	Industrialising Additively Manufactured Heat Exchangers <i>Fatos Dergüli, Michael Fuller, Ian Fordyce</i>	Smart Composite Complexes Aeronautical Structures: Mastering their life cycle management <i>Nazih Mechbal, Eric Monteiro, M. Rébillat</i>	Stargate: Accelerating Greener Aviation <i>Charlotte Verreydt</i>	Cool-down analysis of a foam-based LH2 Aircraft Storage Tank <i>Carles Oller, Marcial Mosqueda-Otero, Eugenio Schillaci, Jesús Castro</i>	Advanced Cockpit Concepts as Enablers for Single Pilot Operations <i>Vittorio Di Vito, Giulia Torrano</i>	Generation and study of probabilistic solution spaces for conceptual and preliminary aircraft design <i>Vladislav Tihomirov Todorov, Dmitry Rakov, Andreas Bardenhagen</i>
17:20 - 17:40	An Integrated Approach to Hydrogen Aircraft Fuselage Design <i>Nicolas Moebbs, Andreas Strohmayr</i>	AI-Driven Non-Intrusive Aircraft Icing Detection Using Control Surface Sensors <i>Gabriel Meisler, Quasim Bara, Valérie Budinger, Michael Bauerheim</i>	A Fast Design and Performance Prediction Methodology and Tool for Centrifugal Compressors of Aircraft Environmental Control Systems <i>Gülberg Çelikel, Toon Bloem, Wilson Casas, Matteo Pini</i>	Optimization of the MFC piezoelectric sensor network for SHM of composite aerospace structures <i>Tadeusz Stepinski, Jakub Spytek, Lukasz Ambrozinski, Sidhesh Raokane, Pawel Packo, Andrea Calvo Echenique</i>	Shaping Sustainable Solutions for EU Airports <i>Fokko Kroesen, Karina Ospina</i>	Manufacturing of an engine Outlet Guide Vane with Automated Fiber Placement and One-Shot Resin Transfer Molding process <i>Cristian Bulles Cárdenas, Elena Rodríguez Senín, Mario Román Rodríguez</i>	Supporting Single Pilot Operations through an ADS-B based Automatic Separation Assurance and Collision Avoidance System <i>Vittorio Di Vito, Giulia Torrano</i>	Dataset synthesis through Bayesian Networks for Engineering Design purposes <i>Andrea Spinelli, Julian Marlissan Bande, Timoleon Kipouras, Ola Isaksson</i>
17:40 - 18:00	Fleet and Climate Assessment for Aircraft Configurations in the H2Avia Project <i>Adnan Muslic, Elif Erden, Rafael Baldaras, Meriem Fikry, Leonard Moser, Karla G. Paz Sosa, Mirko Hornung</i>	Damage detection by fiber optic sensors and machine learning <i>Alfredo Gueemes, Daniel del Rio, Antonio Fernandez</i>	Heat reuse in the bilge – two application examples using a convective heat transfer measurement sensor <i>Amav Pathak, Marie Pschirer, Maximilian Kienberger, Victor Norréfeldt</i>	Numerical Analysis of Experimental Uncertainties in Ultrasonic Guided Waves Propagation for Damage Monitoring in Composite Structures <i>Javier Hernandez-Oliván, Panagiotis Kolozis, José Manuel Royo, Andrea Calvo-Echenique, Susana Calvo</i>	OLGA Project <i>Delia Dimitriu</i>	Possibilities of using quaternion methods in helmet-mounted cueing system in order to increase the reliability of their operation <i>Andrzej Pazur, Slawomir Michalak, Andrzej Szelmanowski, Pawel Janik</i>	Affordable Hardware-in-the-Loop Testing: A Lightweight Framework for the Development and Initial Validation of Support Systems for Single-Pilot Operations <i>Piotr Grzybowski</i>	Visualizing Probability Distributions in Bayesian Networks Using Enhanced Parallel Coordinates <i>Julian Marlissan, Andrea Spinelli, Timoleon Kipouras, Ola Isaksson</i>
18:00 - 18:20	Case Study of a Liquid-Hydrogen-Powered Aircraft Utilizing Cryogenic Conformal Wing Tanks <i>Nils Roth, Marc Engelmann, Chang Xu, Barlas Türkylmaz</i>	A Digital Twin Platform for Smart Aircraft <i>Zahra Sharif Khodaei, Ferit Aliabadi, Ilias Giannakeas</i>	A Phase-Change Skin Heat Exchanger Thermal Model based on Shell Elements <i>Guillermo Torres Godino, Jose Maria Chacquet Ulldemolins</i>	RAPIDO: A Computational Framework for Synthetic Lamb-Wave Simulation in Aeronautical Composite Materials for Structural Health Monitoring <i>Guillermo Azuara, Gerard Guillemit, Steffi Thomas, Eduardo Barrera, David Modesto, Carlos</i>		Advancing Sustainable Aviation: Insights from Methodologies, Technologies, and Policy Frameworks for Climate Impact Mitigation <i>Edoardo Buchignani, Alessandra L. Zollo, Veronica Villani, Lidia Travascio, Mario A. Solazzo, Angela Vozella</i>	Air taxi operations as source of knowledge for better understanding of SPO risks <i>Barlos Dziugiel</i>	Visual Analytics for Multi-Fidelity Multi-Disciplinary Optimisation studies under Uncertainty <i>Shubham Shubham, Andrea Spinelli, Timoleon Kipouras</i>
18:20 - 18:40	Selection criteria for a fuel cell-based propulsion architecture of a regional box-wing aircraft <i>Ulrich Carsten Johannes Rischmüller, Mirko Hornung</i>	Open Discussion	Advanced Flow Meter for next-gen bleed & bleedless architectures <i>Odyseas Charalampopoulos</i>	Theoretical investigation into the impact of sensor selection on predictive maintenance sensitivity in aeroengines <i>Francisco Sastre, Luis Sanchez de Leon, Ivan Blazquez, Angel Velazquez</i>	Panel Discussion	Summary of the high voltage distribution regulatory gap analysis within the CONCERTO project, with a particular focus on the validity of the results <i>Alexander Kleß, Joachim Siegel, Andreas Strohmayr, Guido Nafari, Paul Miller, Marc Pontrucher, Marin Wenger, Sarbanu Mukherjee</i>	Olivia: enabling joint work in aircraft divert scenario through Operational Intentions <i>Ricardo J.N. dos Reis, Anaïs Villani, Theodore Lefoutze, Charles-Alban Dornay, Jaime Diaz Pineda</i>	Large Language Models as translators for the advanced design space exploration of complex engineering products <i>Alejandro Pradas Gómez, Andrea Spinelli, Timoleon Kipouras, Ola Isaksson</i>
18:40 - 19:00	Conceptual Design of a Zero-Emission Regional Aircraft Featuring a Hydrogen-Powered Box Wing with Distributed Electric Propulsion <i>Sara Hijazi, Andreas Strohmayr</i>		Design Tools and Integration Insights for Hydrogen Thermal Management in the MINIMAL Project <i>Isak Jonsson, Carlos Xisto, Petter Millen, Erik Hasselwander, Konstantinos Fotis</i>	Using Bayesian Networks for Fault Diagnosis: An Application to a Small Unmanned Aerial Vehicle <i>Alexander Athanasios Kamsiuris, Christian Trapp, Ann-Kathrin Koschik, Florian Raddatz, Gerko Wendt</i>		Systems of Systems Guided Agent Communication and Collaboration in Aerial Wildlife Fighting <i>Nikolaos Kallitakis, Nabih Naeem, Prajwal Shiva Prakash</i>		Open Discussion
19:00 - 19:20				Vibroacoustic Optimization of the Airframe Using Energy Harvesting Resonators: An Experimental and Numerical Approach <i>Florian Mack, Daniel Alboldt, Lukas Keitenhofen, Kai-Uwe Schröder</i>				

19:00	Students & Young Researchers Networking Event
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**15th EASN International Conference on
Innovation in Aviation & Space towards sustainability today and tomorrow**

Final Detailed Agenda

DAY 4 | 17.10.2025

8:30	12:00	Registration						
ROOM	A-021							
9:30	10:00	KEYNOTE SPEECH Is the eco-system of the European aerospace engineering education prepared to adapt to the transformation of Aerospace? by Prof. Gustavo Alonso Universidad Politécnica de Madrid (UPM), School of Aeronautical and Space Engineering (ETISIAE)						
Chaired by		Prof. Spiros Pantelakis Conference co-Chairman						
10:00	10:30	Coffee Break						
ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Energy and Fuels: Radical approaches towards 100% renewable energy and climate neutrality	Aircraft Design PART I	Non-destructive testing and structural health monitoring of aircraft structures	Advanced Manufacturing Technology for Aeronautics and Space PART III	Aerodynamic & Aeroacoustic Analysis and Design PART I	Simulation and experimental validation of sustainable aircraft structures and their manufacturing processes	Regulation & Policies	Digital Engineering for Innovation in Aviation and Space PART II
Session Chair	Dr. Andreas Sizmann (Bauhaus Luftfahrt, Germany)	Prof. Emmanuel Benard (ISAE SUPAERO, France)	Dr. Helge Pfeiffer (KU Leuven, Belgium) & Prof. Elena Jasuniene (Kaunas University of Technology, Lithuania)	Ms. Elena Rodríguez Senín (AIMEN, Spain)	Prof. Konstantinos Kontis (University of Glasgow, UK)	Prof. Konstantinos Tserpes & Prof. George Lampeas (University of Patras, Greece)	Dr. Dietrich Krönrzer (former Senior Officer, Aviation Unit, DG Research & Innovation, European Commission)	Dr. Shubham Shubham, Dr. Andrea Spinelli & Prof. Timoleon Kipouras (Cranfield University, UK)
10:30	10:50	Alcohol-to-Jet production routes – potentials and challenges through new combinations of process steps and feedstock Arne Roth, Ferdinand Vogelsgang	Exploration of High Aspect Ratio Strut-Braced Wings: A Low-Fidelity Framework for Early Aircraft Design Ousmane Sy, Shantanu Sapre, Emmanuel Benard, Joseph Morlier, Yoann Le Lamer	Vibration-based damage detection and localisation on a trainer jet aircraft wing Gabriele Dessenà, Marco Civera, Andrés Marcos, Oscar E. Bonilla-Manrique	Thermal and mechanical characterization of functionalized carbon fiber/epoxy resin composites with Graphene Elena Rodríguez Senín, Cristian Builes Cárdenas, Mario Román Rodríguez	Data-Driven Approach for Fast Noise Prediction in Preliminary Aircraft Design using the e-Genius as Example Dominik Elenhut, Andreas Strohmayer	Sustainability-driven design optimization of fuselage panels through mathematical modeling Dimitris Sofropoulos, Aikaterini Anagnostopoulou, Ioannis Sioutis, Konstantinos Tserpes	Evaluation of One Engine Inoperative Scenarios for Electrified Multi Engine Aircraft from the Certification Perspective Robin Frank, Stephan Rempe, Marcel Mischke, Sebastian Stoppa, Thomas Geyer
10:50	11:10	SUN-to-LIQUID II: Environmental and Economic Perspectives of Sustainable Aviation Fuel from Sunlight and Air Moritz-Alexander Thiel, Christoph Falter, Heider Hussain, Valentin Batteiger, Andreas Sizmann	Development of the Architecture of a Conceptual Design Tool for Manned and Unmanned Fixed-Wing Aircraft Rebecca González-Pérez, Alejandro Sanchez-Carmona, Cristina Cuerno-Rejado	Identification of the natural vibration modes of a turbine engine fan using one- and three-dimensional laser vibrometry Michał Szczesniak, Aleksander Olejnik, Robert Rogalski	SEQUENTIAL RESISTANCE WELDING OF A THERMOPLASTIC COMPOSITE LEADING EDGE DEMONSTRATOR: FROM LABORATORY TESTING TO FULL-SCALE WELDING Massimiliano Russoello, Enrico Chemello, Marta Juanatey Muradas, Mohsen Bahrami	On the effect of angles of attack and sideslip on aircraft stability derivatives L. M. B. C. Campos, J. M. G. Marques	An approach to predict fatigue delamination propagation in curved composite laminates under non-constant mixed-mode conditions: experiments and simulation correlation Carlos Mallor, M. Sanchez, A. Calvo, S. Calvo, H. Roman-Wasik, F. Martín de la Escalera	Evaluation of an AI-aided Document Framework for Certification of Novel Aircraft Propulsion Systems Sebastian Stoppa, Stephan Rempe, Marcel Mischke, Robin Frank, Thomas Geyer
11:10	11:30	Navigating Passengers through Sustainability Initiatives within Air Travel: WTP for Voluntary Carbon Offsets and Sustainable Aviation Fuels Naomi Sieben, Christopher Schrubba	HADES – A Framework for Hierarchical Architecture Design for Engineering Systems M. Mischke, D.S.S. Katabathula, S. Rempe, R. Frank, S. Stoppa, T. Geyer	Detection of Water Ingress in Honeycomb Composites under Freeze-Thaw Cycles Using Acoustic Emissions Helge Pfeiffer, Tian Xun Lin, Jeroen Soete, Johan Vanhulst, Dimitrios Chronopoulos	Sustainable aviation through a novel multi-material joint technology for aeronautical applications E.Pappa, A. Kumar, C. Annicchiarico, N. Gallo, M. Cabrioli, M. Silva Colmenero, M. Vanzetti, B. Fofanié, T. Černelič, L. Margaria, E.F.Altunok, A.Caluccia, G. De Pasquale, J. Bellver, B.Perez	Surrogate Modeling of Nonlinear Folding Wing Tip Aerodynamic Coefficients Andreas Molz, Christian Breitsamter	Gradient-Based Design Optimisation of Composite Aircraft Structures Using CUF Beam Theory Donato Cardone, Andrea Cini, Rauno Cavallaro	Firms' strategic management of R&I funding synergies: Spanish aeronautics' participation at national and European programs Juan Francisco Reyes Sánchez, Gustavo Alonso, Gustavo Morales-Alonso
11:30	11:50	Performance and Emissions Analysis of a Microturbine Operated with Sustainable Aviation Fuel Maria Grazia De Giorgi, Antonio Greco, Sara Bonuso, Pasquale Di Gloria, Bartosz Gawron, Tomasz Bialecki, Andrzej Kulczycki	Conceptual study of 80-pax fuel cell-driven aircraft for sustainable aviation Diego Giuseppe Romano, Etienne Guillaume Behar, Mattia Barbarino, Gianpiero Buzzo, Giovanni Fasulo	Spatially Resolved Monitoring of the Curing Degree in the Liquid Resin Infusion Process using Near-Infrared Hyperspectral Imaging Xabier Zurutuza Lasa, Laura Arevalo Diaz, Janusz Poplawski, Cristian Builes Cárdenas, Tania Grandal González, Arántzazu Núñez Coscajero, Rubén Ruiz Lombra, Mario Román Rodríguez, Daniel Maestro-Watson, Luka Eciolaza Echeverria	Process Strategies for DED-Arc Manufactured Pre-Forms in Ti15-3-3-3 In Flowforming Applications Robert Lau, Frederik Dahms, Hannes Zapf, Henrik Wünsch, Alexander Mödler, Ingomar Kelbassa	Transport Aircraft Shock Buffet Investigations at Forced Wing Motions Vinzenz Völkl, Christian Breitsamter	A Numerical Investigation on the Analogy Between Hypervelocity Object Impact and Laser Shock Impact for Space Applications Konstantinos Tserpes, Panagiotis Kompos, Ioannis Floros, Panagiotis Rallis, Laurent Berthe, Mathieu Weber, Alessandra Benuzzi	Efficient modeling of aircraft emission inventories for technology impact assessment in future markets Ruben Grunau, Malte Niklaß, Benjamin Lührs
11:50	12:10	Conceptual Design of a Metal Hydride Cartridge for the Recovery of Gaseous Boil-off Losses from Liquid Hydrogen Tanks Florian Franke, Stefan Kazula	Adaptive Emergency Transport for Humanitarian Evacuation & Response (AETHER) Laurin Plechhofa, Daniel Götz, Johannes Götzner, Süheyl Savran, Raman Law, Carlos Santiago Valladares Quintana	A Multi-Modal Approach to Non-Destructive Testing of Adhesive Bonds Elena Jasuniene	Overcoming processability limitations in Al6082 alloy by PBF-LB/M of AMMCs with TiC/SiC reinforcements Raul Gomez	Design of Laminar Transonic Airfoils with Cross Flow Attenuation at Large Sweep Angles using Bayesian Optimisation Samarth Kakkar, Thomas Streif, Arne Seitz, Javier Ruberte Bailo, Rolf Radespiel	Droplet Impact Experiments and Numerical Simulations for Rain Effects on Structural Surfaces Martin Sauer, Christian Hertel, David Danzeisen, Silke Grünke, Oliver Rohr	Application of a syntax-based text extraction algorithm on airworthiness security regulations Adrian Hechelmann
12:10	12:30	Comparative Analysis of Aircraft Energy Management Strategies for a Reduction in Hydrogen Consumption and Battery Ageing Ayesha Wise, Sharmila Sumsuroah, Osama Hebala, Serhiy Bozhko, Seang Yeoh	Potentials of Hydrogen Powered Short-Range Aircraft Concepts with Mild-Hybrid-Electric-Propulsion Architectures Daniel Silberhorn, Georgi Atanasov	New Opportunities for Ultrasonic Fatigue: A Perspective on Key Considerations for its Broader Acceptance in Design/Qualification and Case Studies Using Conventional and Additively Manufactured Metals Diana A. Lados, Anthony G. Spangenberg	THE INFLUENCE OF MODEL SCALE ON WIND TUNNEL TEST RESULTS Andrzej Krzyśiak, Aleksander Olejnik, Łukasz Kiszczowiak	Experimental and Numerical Evaluation of Additively Manufactured Airfoils using Continuous Carbon Fibers Ivica Smajver, Darko Ivančević, Fran Ušurić	Generative AI in Aerospace: Applications in Concept Design, Supply Chain Resilience, and Knowledge Management Marie-Annebel Flouzat, Kerdreux, Rodriguez, Thépaut, Uluc, Venugopal,Al-Misfer, Bin-Saeed,Shabir, Halliday, Delcros, Gouet, Leorri, Hiltner, Kaufmann, Solheim, Osterstrom, Di Nizio, La Fata, Maggioni,Auzillion, Boufeiller,Galliot, Labit	
12:30	12:50			Developing a Qualification and Testing Framework for Cold Spray Repairs In Aerospace Applications Konstantinos Stamoulis, Stratos Koufis, Bernard Bosma, Lars Andersen, John-Alan Pascoe		Investigation of adhesive bonded joints for the integration of novel energy systems into a hybrid electric regional aircraft fuselage Panagiotis Gyffas, Ioannis Lentzos, Anastasia-Despina Ioannou, George Lampeas		
12:50	13:10					Adaptation of Damage Tolerance Design Principles to Cryogenic Hydrogen Tanks Stavros Vallis, Konstantinos Fotopoulos, Ioannis Diamantakos, George Lampeas		
12:30	13:30	Lunch Break						
ROOM	A-021	A-003	A-004	A-005	A-006	A-025	A-026	A-027
Session Title	Energy Storage	Aircraft Design PART II	Innovative electrical devices supporting sustainability in aviation and space	Advanced Manufacturing Technology for Aeronautics and Space PART IV	Aerodynamic & Aeroacoustic Analysis and Design PART II	In-flight safety for sustainable aircraft	Aeroelasticity & Scaled Flight Testing	Digital Engineering for Innovation in Aviation and Space PART III
Session Chair	Prof. Christine Espinosa (ISAE SUPAERO, France)	Prof. Emmanuel Benard (ISAE SUPAERO, France)	Prof. Patrizia Lamberini (University of Salerno, Italy)	Ms. Elena Rodríguez Senín (AIMEN, Spain)	Prof. Konstantinos Kontis (University of Glasgow, UK)	Dr. Andreas Battenberg (Fraunhofer-Gesellschaft, Germany)	Prof. Andreas Strohmayer (University of Stuttgart, Germany)	Dr. Shubham Shubham, Dr. Andrea Spinelli & Prof. Timoleon Kipouras (Cranfield University, UK)
13:30	13:50	Experimental sloshing regimes in horizontal cylindrical tanks Igor Festila, Lucian Constantin, Maria Cosapu, Amado Stefan, Paul-Virgil Rosu	Multidisciplinary Design Optimization of Flexible Aircraft: Advancing Aeroelastic Co-design with Active Load Alleviation Armand Ioan Căpușanu, Philippe Pastor, Fabrice Demourant and Eric Nguyen Van	Preliminary Design and Aircraft-Level Assessment of Piezoelectric Resonant Ice Protection Systems Pierre Bonhomme, Marc Budinger, Valerie Pommier-Budinger, Valerian Palanque	Assessing Bi-Stability in 3D-Printed Origami Deployable Structures Ester Velázquez Navarro, Pablo Aribas, Boris Martín, Santiago Morán Iglesias, Pablo Salano-López b, María María Moure, Inés Uriol Balbin	Flight Validation of Wind Tunnel Measurements for a Cropped Delta Wing Design Filip Zubal	Zonal Simulation of air flow dynamics in the leakage case of a liquid hydrogen tank in a hybrid-electric regional aircraft Christina Matheis, Victor Norrefeldt	Flutter analysis of a hose-drogue system for aerial refueling Salehi Panigagua, Keywan García-Fogeda Núñez, Pablo and Arévalo Lozano, Félix
13:50	14:10	Composites for Liquid Hydrogen storage: cryogenic environmental aging and mechanical performance Pietro Agostino, Sofirios Grammatikos	Preliminary Design and Wind Tunnel Testing of a Morphing Wing Section for Subsonic Incompressible Flight David Macovei, Marta Oliveira, Pedro Quitral, Rui Moreira, Mariana Banea, Carolina Hernandez, Jose Luis Ruiz, Juan A. Cárdenas-Rondón	Electromechanical Resonant Ice Protection Systems Using Voice Coil Actuators Younes Rafik, Marc Budinger, Valerie Budinger, Hubert Polaert	4D Printing of Piezoelectric Polymers for Aerospace Applications: Processing Challenges, Functionalization, and Integration with High-Performance Substrates Apostolos Argyros, Vasileios Stratiloudou Efstratiadis, Nikolaos Michailidis	A Comprehensive Aero-Vibro-Acoustic Approach to Cabin and Airport Noise Mitigation in a 19-Seater Hydrogen-powered Electric Aircraft Mattia Barbarino, Giovanni Fasulo, Antonio Pagano, Antonio Visignardi, Fabrizio Morlando, Francesco Petrosino, Miha Zupanec, Jernej	Experimental results of the distributin of halon-free cargo fire suppression agents in an experimental cargo hold demonstrator Victor Norrefeldt, Arnav Pathak, Marie Pschirer, Maximilian Kienberger	Continuous movable layout parameterisation for Gust Load Alleviation Stefan de Boer, Junji Sodja, Roeland De Breuker
14:10	14:30	Performance Analysis of a Commercial Aircraft Liquid Hydrogen Fuel System Alireza Ebrahimi, Andrew Roll, Drewan Sanders	The NetSHAir Project - Reducing CO2 Emissions from Aviation by Aircraft Sharing and Passenger Bundling Thomas Hagspihl, Vasiliki Kaliga, Yiwen Zhu, Carsten Rischmüller, Rainer Kolisch, Constantinos Antoniou	Experimental analysis of 2D Nanomaterial-Based Transparent electrodes for Efficient Photovoltaic Devices in Aviation Applications Noor ul ain ahmed, Maksim Shundalau,Mariaduligia Raimondo,Vidmantas Gulbinas, Maria Sarno, Claudia Cirillo, Patrizia Lamberini	Process development and additive manufacturing of a real scale rocket nozzle extension with filigree wall strengths by using powder-based laser material deposition (LMD) Jochen Kittel, Min-Uh Ko, Thomas Schopphoven	Numerical and Experimental Assessment of Cabin Noise Transmission Loss for Piaggio P.180 aircraft Carmen Brancaccio, Giovanni Fasulo, Mattia Barbarino, Felicia Palmiero, Giorgio Travostino, Roberto Citarella	Additional Mitigation Means against the Thermal Runaway of Portable Electronic Devices in Cabin and Cockpit Victor Norrefeldt, Simon Holz, Jonas Pfaff, Arnav Pathak, Marie Pschirer, Sebastian Schopferer, Jürgen Kuder	An Open Virtual Test Case for Open Fans Michele Greco, Roque Corral, Fanzhou Zhao, Rainer Schnell, Carola Rovira Sala, Raul Martinez Luque, Fernando Geo-Aguilera
14:30	14:50	Accelerated refueling of type IV hydrogen pressure tanks by passive means: Thermal material characterization and evaluation Nico Liebers, Sven Ropke	Prototype wing design and manufacturing for reflexed airfoil morphing Panagiotis Georgopoulos, Jurij Sodja, Roeland De Breuker	MXene/Polyaniline Nanofiber Composite Functionalized with Recycled MnO for High-Performance Supercapacitors Renata Adami, Faraz Khan, Nicole D'Avanzo, Mariagrazia Juliano, Claudia Cirillo, Libero Sestì Osséo, Maria Sarno	Aerogel based high thermal insulating materials for space applications Eunate Gotti, Marta Ocejó, Alejandro Obregón, Yolanda Belaustegui	Mesh adaptation on hybrid unstructured meshes for immersed boundary methods with applications to industrial aerodynamics Jonathan Núñez-de la Rosa, Esteban Ferrer, Eusebio Valero	Simulation of the Passenger and Crew Exposure from a Thermal Runaway of Portable Electronic Devices in Cabin and Cockpit Arnav Pathak, Victor Norrefeldt, Simon Holz, Jonas Pfaff, Sebastian Schopferer, Jürgen Kuder	A Multi-Fidelity Aeroelastic Toolchain: From UAVs to Hydrogen Transport Aircraft Fanglin Yu
14:50	15:10	DEMOCRITE project: an EREA collaborative research on H2 tank design and A/C Integration Ignazio Dimino, Maciej Karny, Cedric Julien, Mircea Bocioga, Monica Ciminello, Salvatore Ameduri	Coupling Shear Panel Theory with Beam Models for Gradient-Based Wing Optimization Moritz Bäß, Lukas Kettenhofen, Kai-Uwe Schröder	Halogen-Free Electrolytes for Safe and High-Performance Lithium-Ion Batteries in Electric Aircraft: A Nanotechnology Approach Musab Hammam Khan, Raffaele Longo, Liberata Guadagno, Renata Adami, Maria Sarno, Patrizia Lamberini, and Vincenzo Tucci	The potential benefits and drawbacks of using thermoplastic composites in satellite structures Maciej Giżyński, Ewa Kaczorowska-Lukasik, Piotr Kowalczyk, Wojciech Krauze	Gust behaviour analysis of fixed-wing multi-mission Remotely Piloted Aircraft Carmelo-Javier Villanueva-Canizares, Álvaro Gómez-Rodríguez, Cristina Cuerno-Rejado	A new approach to the application of SMA strain sensors for structural health monitoring of CoPVs Alexander Hiekel, Björn Senf, Wolf-Guntram Drossel	Flight tests of scaled demonstrator for a general aviation aircraft concept Thorben Hammer, Stefanie de Graaf, Anne Tredler
15:10	15:30	Experimental Campaign and Numerical Validation of Isothermal Sloshing: Progress Toward the Implementation of Hydrogen Tanks in Civil Aviation Ignacio Sanchez-Ojeda, Javier Calderon-Sanchez, Cristian Flores-Rodriguez and Leo M. Gonzalez-Gutierrez		Analyzing the efficiency and the transparency of innovative transparent electrodes for space solar cells applications Francesco Cipriani, Maksim Shundalau, Patrizia Lamberini	Development of the advanced turboprop engine power turbine containing 3D printed hardware Michał Hejłof, Błażej Czajka, Katarzyna Gąsior, Justyna Anna Piłta	Aeroacoustic Analysis of Pusher Propeller Noise – A Comparative Case Study Adam Sieradzki, Witold Klimczyk	Safety case modeling for fire risks in liquid hydrogen-fueled aircraft Joël Jézégou, Juan Pedro De Gracia Roca, Riccardo Chivato	Modulare or Technology Specific Scaled Flight Demonstrator – An Approach to Estimate the Impact on Project Costs Dominique Paul Bergmann, Andreas Strohmayer
15:30	15:50	Liquid hydrogen fuel system architecture and integration analysis for regional aircrafts Rui Ferreira, Heider Xavier Nunes					Modification of a modular scaled flight demonstrator towards energy reduction using mission-adaptive propellers and innovative energy harvesting approaches for distributed electric propulsion systems Achim Kuhn, Eskil Nussbaumer, Jan Denzel, Dominique Bergmann, Andreas Strohmayer	Multi-Agent Deep Reinforcement Learning Framework for efficient Aerial Wildfire Fighting Leonard Badtke, Nabih Naeem, Thomas Clemen, Nikolaos Kalliatakis and Prajwal Shiva Prakash
ROOM	A-021							
16:00	16:30	Concluding Remarks, Best Poster Award Announcement & Conference Closing						

Final Detailed Agenda

Poster Section							
Poster Tours: October 14th (Day 1), 16:30-17:30 & October 16th (Day 3), 16:00-17:00							
Poster ID 116 ‘Flexible’ Project Management: A guideline to forming, managing and leading student teams for technical projects <i>Efstathios Rigas</i>, Thomas Kalampoukas, Athina Theochari, Konstantinos Giotis, Evangelos Ch.Isirogiannis, Christos Belogiannis, Panagiotis Kardaras, Antonis Spanos, Thodoris Domvoglou, Michalis Diakonikolis	Poster ID 235 A Machine-Learning approach to predict the climate impact of North Atlantic flights <i>Natalia Kravchenko</i>, Carlo Abate, Lydia Hill, Nicolas Bellouin	Poster ID 551 A Modular Detection System for Tactical Conflict Scenarios in Multi-USSP U-space using IMM Filters and AMQP Messaging <i>Julio Sebastian Diaz Leon</i>, Juan Vicente Balbastre Tejedor, Eduardo Gallo, Manuel González Rodríguez, Sandra Amarillo Vañó	Poster ID 408 A Scalable Formation Flight Suitability Indicator for Network-Level Fuel Efficiency <i>Xiaoqing Deng</i>, Maria Cerezo Magana, Ricardo Gazquez	Poster ID 291 A simplified model for unsteady shock wave motion during inlet unstart: Novel results and emerging research paths with implications for high-speed propulsion <i>Carlos Carbajosa</i>, Ángel Sanz-Andrés, Sergio Marín-Coca, Carolina Hernández-Badillo, Alejandro Martínez-Cava	Poster ID 471 A study on the potential of hydrogen tankering in the design and operation of an air transport system with first generation hydrogen-powered aircraft <i>Sam Randeraad</i>, Pieter-Jan Proesmans, Alexei Sharpanskykh	Poster ID 241 Advanced Performance Analysis of Distributed Electric Propulsion using a Meshless CFD Simulation Approach <i>Roberta Boffigliero</i>, Viola Rossano, Joel Enrique Rivas Guerrero, Giuliano De Stefano	Poster ID 188 Advancements in Liquid Hydrogen Aircraft Configuration Design and Assessment <i>Felix Fritzsche</i>, Daniel Silberhorn, Vincenzo Nugnes, Tim Burschyk, Michael Kotzem
Poster ID 62 Aerodynamic Advances through Laminar Flow: A Conceptual Aircraft Design Study <i>Benjamin Fröhler</i>, Petr Martinek, Jannik Häßly, Tobias Wunderlich, Martin Hepperle and Thomas Kilian	Poster ID 519 Aeroelastic stability analysis of a missile/rocket configuration equipped with grid fins <i>Gonzalo García Valero</i>, Keywan Salehi Panigagua, Marcos Chimeno Manguán, Pablo García-Fogeda Núñez	Poster ID E13 Aeromedical System for Configurable Life-saving Evacuation and Rapid Aid (ASCLERA) <i>Ty Pruschke</i>, Joshua Hector, Felix Loick, Justus Tost, Timon Helmich, Jan Weisgerber, Vincenzo Nugnes	Poster ID 237 Air Traffic Demand Forecasting for Origin-Destination Airport Pairs using Artificial Intelligence <i>Alicia Serano Ortega</i>, Albert Ruiz Martín, Clara Argerich Martín	Poster ID 212 Analytical and Experimental Investigation of a Novel Piezoelectric Actuator Configuration for Resonant De-Icing Applications <i>Yohan Sabathé</i>, Marc Budinger, Valérie Budinger	Poster ID 287 Architectural Design Considerations for Electric Power Systems in Future (More) Electric Aircraft <i>Andrea Reinall</i>, Franciscus van der Linden	Poster ID 259 Assessing A59100D’s Impact on Cost, Safety, Quality, and Logistics in Aviation, Space, and Defense <i>Bahtiyar Eren</i>	Poster ID 521 ATM-EXCITE: Advancing Secure and Interoperable Civil-Military Airspace through Disruptive Digital Innovations <i>Patrizio Ricci</i>, David Gacía-Arrate, Alina Harbovska, Fernando Gómez-Hermoso
Poster ID 384 Automated parametric FE modelling and optimisation of a composite aircraft wing <i>Nikolaos Ziakos</i>, Andrea Cini	Poster ID E14 Aviation Research Ecosystem Advanced Novel Approach <i>Radek Doubrava</i>	Poster ID 97 CEASIOMpy: learning aircraft design by computing <i>Giacomo Benedetti</i>, Mengmeng Zhang, Jan B. Vos, Arthur Rizzi, Jesper Oppelstrup	Poster ID 61 Collaborative Propulsion System Design: A Framework for the Sizing of a Plug-In-Hybrid-Electric Aircraft Powertrain <i>Niels Weber</i>, Tim Burschyk, Sparsh Garg	Poster ID 407 Comparative Study of CFD Solvers in the Aerodynamic Analysis of a Miniature Unmanned Aerial Vehicle <i>B. Syta</i>, P. C. Czerniszewski, R. Rogólski, S. Kachel	Poster ID 489 COMPARATIVE WING STIFFNESS ANALYSIS OF A DYNAMICALLY-SCALED MODEL AND A REFERENCE AIRCRAFT TAKING INTO ACCOUNT DIVERSE MANUFACTURING TECHNOLOGIES <i>Jaroslav Milczarczyk</i>, Robert Rogólski, Aleksander Olejnik	Poster ID 252 Comparison of contrail mitigation strategies prioritising sustainable aviation fuel distribution on specific routes and airports <i>Lukas Söfving</i>, Liesbeth Wijn, David Engler Faleiros, Timothy van der Duim	Poster ID 234 Conceptualization and Numerical Optimization of an Energy-Efficient Electrothermal Ice Protection System for a Ducted Fan Propeller <i>Cedric Obatalu</i>, Sebastian Neveling, Rainer Bartels
Poster ID 559 Connecting the Dots: Enhancing Air–Rail Travel using Graph Technologies during nominal and non nominal situations <i>Aina Gomila</i>, César Elias Mejía, Joan Esteve, Luis-Kazuto Gutierrez, Ismini Stroumpou, Petar Mrazovic, Josep Lluís Lariba Pey	Poster ID 13 Co-Simulation and Knowledge Graph-Based I/O Management for Simulation-Driven Change Impact Analysis in Hybrid-Electric Aircraft Propulsion Development <i>Thomas C. Zimmermann</i>, Kai Lindow, Jörg Brünnhäuser, Renaud Kenfack	Poster ID 229 Cradle of Spaceflight: The Potential of Peenemünde in the Current Space Race <i>Terence Larusch</i>, Thomas Zimmermann, Renaud Kenfack Zangue	Poster ID 403 CRC SynTrac – Data and Software Management <i>Sabine Langer</i>, Christian Koch	Poster ID 243 Current Trends and Challenges in Unconventional Aircraft Conceptual Design <i>Álvaro Cobo-González</i>, Cristina Cuerno-Rejado	Poster ID 369 Cycle design space exploration study of a 2-spool-geared liquid-hydrogen-fuelled aircraft engine <i>Christos Mourouzidis</i>, Adriano Isoldi, Dario Del Gatto, Nicholas Grech, Ioannis Roumeliotis	Poster ID 31 Deep machining of Alumina Reinforced (Al2O3/Al2O3) Ceramic Matrix Composites by ultrashort laser <i>Jagadheesh Radhakrishnan</i>, Sundar Marimuthu	Poster ID E12 DESIGN ASPECTS OF A 80-SEATS 1000 KM RANGE LH FUELED AIRCRAFT <i>Serhii Fil</i>, Dmytro Berbenets, Andrii Khaustov, Oleksandra Urban, Oleksandr Bondarchuk
Poster ID 39 Design of a Scissor-Structural Mechanism for a Morphing Missile Nose Cone <i>Koray Özdemiř</i>, Yavuz Yaman	Poster ID 499 Design of power electronic cooling system in an aircraft considering the flight mission and environmental conditions <i>Nejat Mahdavi</i>, Vincent Dupont	Poster ID 542 Design, analysis and optimization of a vacuum insulated composite conformal LH2 tank <i>Bram Noordman</i>, Bert de Wit, Ralf Creemers, Arne te Nijenhuis, Rens Ubels, Karthik Ramaswamy, Amit Kumar Tripathi, Paul Liddell, Jack Cullinan, Leonardo Lecce	Poster ID 264 Design, fabrication and launching of CANSAT-deploying high-power rockets <i>E. Karampasis</i>, V. Kiosoglou, S. Chatzipetrou, C. Konstantinidou, K. Marsouvanidis, E. Minoudis, A. Mouratidis, P. Panagiotou	Poster ID 135 Development of a turboprop engine gas generator turbine with significantly improved key parameters <i>Grzegorz Kaczmarek</i>, Grzegorz Karpinski	Poster ID 228 Development of an Air Curtain to Improve Thermal Comfort in Cargo Aircraft <i>Jorge García Rodríguez</i>, Pablo Lopez Domene	Poster ID 63 Development of Short-Range Laminar Aircraft: Conceptual Design with Integrated System Sizing <i>Petr Martinek</i>, Benjamin Fröhler, Maurice F. M. Hoogref, Thomas Zill	Poster ID 307 Dual-redundant broadband low noise amplifier module for inter-satellite links at V-band <i>Patrick Longhi</i>, Hermann Barbato, Peiman Parand, Alessandro Barigelli, Francesco Vitulli, Ernesto Limiti
Poster ID 77 Dynamic Timetable Integration for eVTOL Services into Airport Operations: The Bologna Guglielmo Marconi Airport (BLQ) Use Case <i>Ismini Stroumpou</i>, Frederic Chambour, Slavica Dožić, Danica Bobić	Poster ID 136 Electrical Energy Storage and Conversion System Sizing, Performance and Battery Degradation in Regional Hybrid-Electric Aircraft <i>Emina Hadžialić</i>, Paolo Ailberti, Alexander Ryzhov, Helmut Kühnel, Marco Sorrentino	Poster ID 23 Environmental impact and standardized cost estimation of future sustainable aviation <i>Ralph-Uwe Dietrich</i>, Rahnuma Bhuiyan Evon, Julia Weyand	Poster ID 107 European Airports in Transition: Air Traffic Scenarios and Emission Development in Context of the revised EU Air Quality Standards <i>Nico Flüthmann</i>	Poster ID 163 Experimental Analysis of the Aerodynamic Impact of Cropping on Delta Wing Configurations in a Wind Tunnel <i>Lukáš Vavrinec</i>, Filip Zubaľ, Robert Popela	Poster ID 299 Experimental and Numerical Analysis of Recycled HDPE Composites Reinforced with Milled GFRP as a Filler <i>Maciej Jan Spychala</i>, Danuta Miedzinska, Arkadiusz Poplawski	Poster ID 106 Failure Analysis and Evaluation of Take-Off Performance in the Preliminary Design of Fuel-Cell Electric Regional Aircraft <i>Jonas Mangold</i>, Jakob Schlittenhardt, Andreas Strohmayr	Poster ID 474 Free-Flight Validation of a Multi-Hole-Probe On-Board the Scaled Flight Demonstrator e-Genius-Mod <i>Eskil Jonas Nussbaumer</i>, Sara Hijazi, Dominique Paul Bergmann, Jan Denzel
Poster ID 122 Fuel Cell Systems for different aircraft concepts: Life cycle assessment <i>Rahnuma Bhuiyan Evon</i>, Julia Weyand, Daniel Juschus, Ralph-Uwe Dietrich	Poster ID510 Global Health Monitor (GHM): Onboard Health Management System with TSN capabilities for Clean-Aviation HECATE hybrid-electric regional and Zero-E aircraft <i>Vicente Escañó Granados</i>, Fernando Cuesta Lopez, Francisco Jesus Aguilar Gonzalez, Rafael Ortiz Benítez	Poster ID 65 Health Perception Among Pilots: Unexpected Findings Regarding Health Literacy <i>Sera Rüya Beköz</i>, Alev Banu Beköz	Poster ID 472 Heatwave Impacts on Airport Operations under Future Climate Scenarios: a Climate Risk Assessment <i>Carlo Abate</i>, Lorenzo Cane, Sara Dal Gesso, Alessandro Moser, Aurora De Bortoli Vizoli, Giulia Maggiani	Poster ID 548 Impact of increasing turboprop usage <i>Octavian Thor Pfler</i>, Cristian Emil Constantinescu	Poster ID 280 Influence of Built and Natural Environment on Near-Field Dispersion of Aircraft Emissions <i>Damian Maciorowski</i>, Paweł Jan Glowacki, Ryszard Chachurski	Poster ID 272 Investigation of a lightweight, fire resistant composite battery housing <i>Leonard John</i>	Poster ID E02 Investigation of Local Stall Regions in a BLI Turbofan Engine <i>Grzegorz Krysztofiak</i>
Poster ID 556 LCA-Based Case Study on Sustainable Aviation Fuel from Türkiye's Agricultural Residues <i>Kubra Uygun</i>, Merve Karabal, Alpekin Yıldiz, Kaan Yıldiz, Hulya Cebeci	Poster ID 242 LIDER PROJECT – BUS TECHNO BRICK: SUSTAINABLE BUMPER FOR A HELICOPTER BY POLYCARBONATE <i>E.J. Martín Paradas</i>, J.M. Jiménez G°, D. Crespo Malera	Poster ID 251 Managing Thermal Emission for Reliable Deep Space Trajectory Control <i>Fermin Navarro-Medina</i>, Pablo Solano-López, Ester Velázquez-Navarro, Marta María Moure	Poster ID 58 Measurement-based investigation of energy-efficient and comfortable air conditioning in urban air mobility <i>Christina Martheis</i>, Victor Narrefeldt, Marie Pschirer, Max Kienberger, Roman Baldini	Poster ID 166 Metamodeling approach for comparison of linear models of flux-switching and permanent magnet synchronous machines for electric aircraft propulsion <i>Enrico Teichert</i>, Matthias Lang, Ilja Koch, Stefan Kazula	Poster ID 40 Methodologies for the analysis of non-linear environmental processes applied in a dynamic model of air traffic emissions <i>Francisco Antonio Buendia Hernandez</i>, Maria Jose Ortiz Bevia, Francisco Jose Álvarez Garcia, Antonio Ruiz De Elvira	Poster ID 425 Modeling and flight control design of a tilting aircraft <i>Pavel Hospodář</i>	Poster ID 217 Modelling and simulation of a distributed-electric propulsion system with PROOSIS <i>María Aranda Rosales</i>
Poster ID 389 Modelling curing-induced residual stresses in filament-wound composite pressure vessels <i>Ivan Komala</i>, Daniël Peeters, Morteza Abouhamzeh, Julien van Campen, Sebastian Heims	Poster ID 457 Modelling Framework and Results for a Plug-In-Hybrid 250-Seat Short-Range Aircraft (EXACT Project) <i>Georgi Afanasov</i>	Poster ID 279 Multi-input multi-output Fast and Relaxed Vector Fitting for aircraft ground vibration <i>Beatrice Elsa Bauret Martínez</i>, Gabriele Dessena, Marco Civera, Oscar E. Bonilla-Manrique	Poster ID 197 Nature-Inspired Wing Geometries: A CFD Study on Bio-Inspired Airfoils for Small RPAS <i>Estela Barroso</i>, Rafael Bardera, Ángel Rodríguez-Sevillano, Juan Carlos Matias and Jaime Fernández	Poster ID 244 Nonlinear actuator analysis for gust load alleviation and active flutter suppression control functions <i>Luca Marino</i>, Tingyu Zhang, Xuerui Wang, Jurij Sodja	Poster ID 54 Numerical Aeroelastic Analysis of a Solar-Powered Joined-Wing Airplane for High-Altitude Operations <i>Pamela Bugata</i>, Paweł Abratowski	Poster ID 303 Numerical Assessment of the Horizontal Tailplane Structure for a Hybrid Electric Regional Aircraft <i>Gaefano Perillo</i>, C. Palumbo, A. Sodano, D. Cristillo, A. Chiariello, M. Belardo	Poster ID 317 Online process monitoring with Fiber Optic Sensors for manufacturing a scaled-aircraft wing-box in a One-Shot Liquid Resin Infusion process (LRI) – FLASH-COMP: Flawless and sustainable production of composite parts through a human centred digital approach <i>Cristian Builes Cárdenas</i>, Tania Grandal González, María Román
Poster ID 309 Operational modal analysis of the International Space Station via Fast and Relaxed Vector Fitting <i>Marina Cozar Alcazar</i>, Gabriele Dessena, Marco Civera, and Oscar E. Bonilla-Manrique	Poster ID 67 Optimised Runway Centreline Interception <i>Rita Banon</i>, Ian Crook, Ríszquez Fernández José Manuel, Mateo Vendrell Alejandro José	Poster ID 401 Optimization of the flap position of a high-lift multi-element airfoil using a body-fitted mesh along with immersed boundary methods <i>Jonathan Núñez-de la Rosa</i>, Andrés Mateo-Gabán, Esteban Ferrer, Eusebio Valero	Poster ID 253 Optimizing Connectivity on Hub-and-Spoke Airline Networks: A Model-Based Approach <i>Ariadna Gómez Rozalén</i>, Javier Cubas Cano	Poster ID 204 OSIRIS – Generation of system-specific failure cases using artificial intelligence based on information from abstract system models <i>M. Mischke</i>, D.S.S. Katabathula, S. Rempe, R. Frank, S. Stoppa, T. Geyer	Poster ID 218 Overflight Noise and Thrust Measurements of the All-Electric e-Genius Flying Demonstrator <i>Andreas Bender</i>, Dominik Eisenhut, Andreas Strohmayr	Poster ID 492 Parametric design of light airplane structures for their mass and stiffness optimization <i>P. Czerniszewski</i>, B. Syta, R. Rogólski, S. Kachel	Poster ID 156 Power Electronics in Hybrid-Electric Aircraft: From Concepts to Prototypes <i>Markus Meindl</i>, Christian Bentheimer, Florian Hilpert, Bernd Eckardt
Poster ID 539 Preliminary development of an electro-thermal model-based battery monitoring system with HIL testing for eVTOL UAVs <i>Aleksander Sufi</i>, Gianpietro Di Rito	Poster ID 36 Preliminary functional hazard assessment of the propulsion power management system of a hybrid-electric regional aircraft <i>Gianpietro Di Rito</i>, Aleksander Sufi	Poster ID 392 Prevention of Contrail Formation in Hydrogen Fuel Cell Aircraft <i>Raphael Gebhart</i>, Franciscus L.J. van der Linden	Poster ID 74 Problems and challenges during preparation of a research program on the example of avionics systems <i>Damian Liszewski</i>, Ewelina Szpakowska-Peas	Poster ID 563 Proof of concept of radars for UAM/IAM applications <i>Juan F. González-Pardo</i>, Pablo Carrascosa-Egido, Juan V. Balbastre	Poster ID 565 Proposal of an approach to estimate the airspace ground risk posed by mid-air collisions between UAS <i>Pablo Arrebola-Casañas</i>, Alex Sanchis-Marín, Brando Franz-Freire, Juan V. Balbastre	Poster ID 84 R&D activities on Hydrogen Sustainable aviation at INTA <i>María del Pilar Argumosa</i>	Poster ID 25 Reduced-Order Active Disturbance Rejection Control for Roll Channel of Tactical UAVs <i>Furkan Leblebici</i>, Ozan Tekinalp
Poster ID 485 Rethinking Cabin Linings: From Waste Carbon to High-Performance Structures <i>Moritz Bäß</i>, Kai-Uwe Schröder, Benedikt Auerhammer, Mesut Cetin	Poster ID 435 Reversible bonding for structural dismantling application <i>Valerie Nassief</i>, Sylvain Padilla, Bouchra Hassoune-Rhabbour, Caroline Pillon, Nathalie Mignard	Poster ID 405 Satellite observation in air transport and its application to airport infrastructure: an approach to the current doctrinal landscape <i>Cristian Carvallo González</i>, Juan José Morillas Guerrero, Gustavo Alonso Rodrigo	Poster ID 248 SATERA PPT: A Performance Prediction Tool for Satellite-Based Air Traffic Independent Localisation and Surveillance <i>Giulia Sidoretti</i>, Victor Monzonis Melero, Juan Vicente Balbastre Tejedor, Mauro Leonardi, Mahsa Mohebbi	Poster ID 66 Selected Aspect of Fire Resistance Requirements for Components of Airborne Hydrogen Power Installation <i>Miroslaw Szukiewicz</i>, Tomasz Rogalski, Jacek Periniązek, Piotr Cieciński, Marcin Drąjewicz, Elżbieta Chmiel-Szukiewicz, Robert Smusz	Poster ID 146 Shape Optimization of Aircraft Outflow Valve for Maximum Thrust Recovery <i>Tasos Karageorgiou</i>, Pela Katsapoxaki, Dominik Christ, Michael Moeller, El Hassan Ridouane	Poster ID 422 Steps towards the validation of the simplified automated approach for a preliminary safety assessment via scaled flight testing <i>Alexander Kieß (Albrecht)</i>, Eskil Nussbaumer, Joachim Siegel, Andreas Strohmayr	Poster ID 114 Strategy for Identifying Successor Advanced Air Mobility Companies and Product Approach for First Tier Suppliers <i>Jean-Baptiste Delalande</i>, Poujol, Gadd, Sellak, Wolf, Alwrithi, Martin, Ellicott, Al Sulaim, Damron, Fernandez, Sgarbi, Fontanella, Loss, Joachim, Kotlar, Gstattenbauer, Arvebring, Silvergran, Kupiec,
Poster ID 529 Structural Health Monitoring (SHM) on Liquid Hydrogen Tanks for Aviation using MEMS, strain SMA and Leakage Sensors <i>Ray Saube</i>, Andrea Boehm, Daniel Buelz, Thomas Oehme, Remi Pantou, Bjorn Senf, Alexey Shaporin, Sebastian Weidlich, Sven Voigt	Poster ID 203 Sustainable Waste Heat Utilization in Jet Engines via Integrated Guide Vane Heat Exchangers <i>Gernot Peyffuss</i>, Helmut Mad	Poster ID 26 System design and assessment of maintenance requirements for a battery-electric propulsion system <i>Ricardo Dauer</i>, Robert Meissner, Ahmad Ali Pohya, Gerko Wende	Poster ID 543 The features of van der Waals complexes of hexagonal boron nitride with organic compounds: spectroscopic and theoretical insights <i>Renata Karpicz</i>, Ivan Halimski, Jeliazkova Fedotova, Danil Pashnev, Martynas Talaikis, Andrey Dementjev, Jevgenij Chmeliov, Irmanas Kasalynas, Patriia Lamberli, Maksim Shundalau	Poster ID 240 The impact of environmental taxation on airline supply decisions in Europe: low-cost carrier responses and regional implications <i>Michał J. Wichrowski</i>, Viktor Trasberg	Poster ID 507 Thermodynamic Pathways towards Sustainable Aviation – A Synergistic Research Perspective <i>P. Köhler</i>, M. Nozinski, F. Müller, L. Richter, J. Hesse, C. Dagli, M. Richter, S. Kabelac	Poster ID E11 Thermomechanical and sustainability aspects of Liquid Hydrogen tanks design <i>George Tzoumakis</i>, Christos Katsikeras, George Lampeas, Spiros Pantelakis	Poster ID 185 Vector control of resonant electromechanical de-icing systems <i>Jason Pothin</i>, Marc Budinger, Valérie Pommier-Budinger, Aurélien Reyssel
Poster ID 117 Vision Based Relative Attitude and Position Estimation of Small Satellites with Robust Filtering Technique <i>Elif Koc</i>, Ersin Soken	Poster ID 219 Water Electrolysis Propulsion: A case Study and Simulation <i>Shankara Coello Escobar</i>, María Aranda Rosales, Victor Villagarcía Valcedo						