

DAY 2 | 28.10.20

[illegible]

Preliminary Agenda

DAY 3 | 29.10.2024

8:30	10:00	Registration
------	-------	--------------

ROOM	Lecture Hall 3
------	----------------

9:00 9:30 *Architecting the Future: ESRE's Vision for Technological Sovereignty in the Next European Space Era*

9:30	10:30	DISCUSSION PANEL
------	-------	------------------

Panelists: Ms. Bárbara Camelo | IAE-SUPAERO, Dr. Nathalie Duquesne | Leibniz-Aerospace Toulouse, Dr. Cornelia Hilenbergs | DLR, Ms. Martine Sainte-Marie | Elies Bougent Association

10:30	11:00	Coffee Break
-------	-------	--------------

[illegible][illegible]

[illegible]

14th EASN International Conference on
Innovation in Aviation & Space towards sustainability today and tomorrow

Preliminary Agenda

DAY 4 | 30.10.2024

Registration								
ROOM	Lecture Hall 1							
9:30 - 10:00	KEYNOTE SPEECH Technical Considerations for Propulsion Systems of Future European Launchers by Prof. Francesco Netti University of Rome & Air and Space Academy							
Chaired by	TSC Conference co-Chairman							
Coffee break								
ROOM	Lecture Hall 1	Lecture Hall 2	Lecture Hall 3	DS-100	DS-112	DS-114	DS-117	DS-023
Session Title	Understanding hydrogen-on-combustion in scramjet engines (HSTIA Final Event)	Next Generation Efficient Airframe Protection: Materials, Automation and Lightweight Design	Thermal Management PART IV	Navigation and Control Outboard Systems	Innovative and multi-disciplinary aircraft designs for emissions reduction PART I	Aircraft Operability from design to operational performance PART I	Aerodynamics/Aeromatrix Analysis PART I	The Race to 2035: Hybrid Electric & SAF for Regional Routes vs Direct Hydrogen Combustion for Medium-Range Airlines: Which of these two pathways is expected to achieve certification first by 2035, and why?
Session Chair	Mr. Marc Ruessli (ATRAN Group, France)	Dr. Andreas Rotherberg (Porsche, Germany)	Prof. Michael Weigand (TU Darmstadt, Germany)	Prof. Cesare Saccoccioni (Wrocław Institute of Aviation, Poland)	Prof. Emmanuel Benard (SAS, SAFASO, France)	Prof. Joël Allégrou (SAS, SAFASO, France)	TSC	Mr. Emmanuel Isenbert (EASA - European Union Aviation Safety Agency)
10:30 - 10:50	HSTIA: Hydrogen combustion in scramjets Nicholas Berman, Marc Ruessli	Beyond the Test Pyramid: A New Approach for Certification of Emerging Materials and Structures John-John Pascoe	Modeling of Coupled Bearing Chamber and Cooling Heat Processes in a Gas Turbine Engine Tamas Mihalikszek, Ido Paruchuri, Armin Kienle, Clekardard Gordillo, Christl Kappeler	Model control techniques for flight control architectures: A decade study of architecture and system-level packaging Rajul Khandelwal, Adam Jagler, Sven Kienerscheid	Laminar-Turbulent-Separation: Wing Concept and its Aerodynamic Properties in Transonic Flight Johannes W. Rabe	Designing for Operations: Translating Customer Expectations into Aircraft Availability Johannes Dörger	Aerodynamic Characterization of HYPERION Subsonic Specifications Benjamin P. Auer, Patrick H. Bos, C. Sauerbrey, A. D. Benardello, S. Rana, G. de Pasquale, V. Velli, C. Stolten, M.D. Burencu	
10:50 - 11:10	Mastering key phenomena of rotor combustion Benoit Finkbe	Structural Mass Optimization of Rotor Composites using 3D Composite using GEM-PrePost Rajul Khandelwal	Cryogenic Thermal conductivity of additively manufactured composites for thermal management components Ale Hogg, Lisa J. van der Kolk, Michael, Christoph Elert, Martin Schwenkemann, Mark Guder	Comparison of Classical and Neural Network-Based Approaches for UAV Trajectory Prediction Rajul Khandelwal, Armin Kienle, E. Johann N. Jagler, A. Saccoccioni, C.	Airfoil Optimization for conceptual design of novel aircraft concepts J. Hwang, J. Cheng, F. Schölkne, E. Jung	Selection of Right Maintenance Strategy in Early Aircraft Design based upon a Model-based Methodology Vedat Sar, Patrick Heide, Adnan, Armin Kienle, Christoph Elert, Martin Schwenkemann, Mark Guder	Analysis of Critical Issues in an Internal Weapons Bay using Detailed Safety Simulations John G. Macdonald, Robert J. Pinner	
11:10 - 11:30	Injection system design - incremental & breakthrough technologies Thomas Kormatz	Surrogate-Assisted layout and Sizing Optimization of a Composite Wings Using Aeroblast CFD Campaign Michael Zoller, Andreas Chl	Democratization and Performance Assessment of Two-Phase Cooling for Fuel Cell Stacks in Commercial Aviation Stefan Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Software-in-the-Loop Validation of Active Disturbance Rejection Control for Autonomous Testing of Unmanned Aircraft Albert Jagler	An Ice-Tolerant Tailplane Using Methodology for High-Aspect Ratio Twin-Boat Wings Chia-Chieh, Jonathan Cornejo, Luca Fugler, Alexander Zorini	Model-Based Operational Effects Analysis Emmanuel Benard, Patrick Heide, Christoph Elert, Martin Schwenkemann, Mark Guder	Experimental Research of Confluent Wing/Fuselage and its Supersonic Aerodynamic Characteristics Numbers Based on Unsteady VLM Modeling Mehmet Karadas, Armin Kienle, Christoph Elert, Martin Schwenkemann, Mark Guder	HSTIA Project Moritz Finkbe
11:30 - 11:50	AI combines technology specifications and operability assessments to representative aircraft conditions Matthias Rother	The Application of Physics-Informed Neural Networks for Structural Strength Assessment J. Basso, R. Basso, R. Fias, J. D. Tavares	Right and Wind Tunnel Performance Characterization of a Structural Fuelled Core Composite Skin Heat Exchanger Using Temperature Sensitive Films Moritz Finkbe, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Methods of Improving Inertial Navigation based on temperature-sensitive measurements Rajul Khandelwal	The roadmap for sustainable aviation regarding noise reduction, main objectives, solutions and key considerations Matthias Rother, Armin Kienle, Jonathan Cornejo, Alessandro Zorini, Luca Fugler	Computational Fluid Dynamics Investigation of Multi-Sensor Tailplane Wing Design Matthias Rother, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Prediction of jet noise for a shrouded configuration of a supersonic aircraft nozzle using a RANS-based acoustic analogy Andreas Benschel, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	KERLOS Project Emmanuel Isenbert
11:50 - 12:10	Multiscale Modeling and Machine Learning of Shock-Absorbing Hydro-Static Hydrodynamic for Aerospace Fuelled Protection Viggo B. Andersen, Carsten J. Lohmann, Vito C.	Computational Investigation of Oil Film Characteristics for Lubrication and Cooling Optimization in a new complex aircraft transmission Rajul Khandelwal, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	CFD Analysis of an Integrated Turbine-Cooling Time Heat Exchanger for Hydrogen and Compressed Propulsion Systems F. Benard, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Modeling Data Bases Matthias Rother, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Semi-empirical flow design procedure for aerodynamic engine noise reduction F. Benard, J. Cheng, A. Benardello, G. Pasquale, R. de Pasquale	Investigation and Formalization of the Relationship between Sustainability and Operability Patrick Heide, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg	Evaluating metamaterials for sustainable mobility mitigation in wind energy Sergio S. Mendes, David Roca, Enrique Ojeda, Juan Carlos	HEA Project Pascopo Giuseppe
Open Discussion								
12:10 - 12:30			CFD Analysis of an Integrated Turbine-Cooling Time Heat Exchanger for Hydrogen and Compressed Propulsion Systems F. Benard, Armin Kienle, Benjamin Benschel, Andy Töns, Jan van Gemert, Georg Wittenberg		Computational framework for aircraft noise alleviation, from source to the ground F. Benard, L. de Vito, M. Benardello, G. Pasquale	How can AI assist in the Decision-Making for Aircraft Heat Performance in Military Maintenance Control Centers? Vincent Chavet, Nicolas Andre, Jean-Christophe	Fueler Analysis of Flexible Wing Configurations Using the Thermal Buckling Technique M. Benardello, R.A. Benardello, T. Vlodavets	

Preliminary Agenda

[illegible]