



DAY 1 - Tuesday, September 09, 2025

7:30	9:00	ERF Registration Desk Open					
		PLENARY				PLENARY	
9:00	9:30	WELCOME INTRODUCTION TO ERF 2025.		• ERF 2025 CHAIRMAN, LUCA MEDICI	• MARINA MILITARE ITALIANA	• LEONARDO	
9:30	9:45	WELCOME BY CEAS • CEAS PRESIDENT, CORNELIA HILLENHERMS					
9:45	10:15	MARINA MILITARE ITALIANA: OT&E AND OPERATIONAL NEEDS OPTIMIZATION, FROM DYNAMIC TO SIMULATION SYSTEMS ANALYSIS. HOW THE NAVAL AVIATION TESTING & EVALUATION CENTER			INTERFACE EXPERIENCE CONTRIBUTES TO THE EFFECTIVENESS OF ITALIAN NAVY FLEET.		
10:15	10:45	COFFEE BREAK					
10:45	11:45	MARINA MILITARE ITALIANA AND LEONARDO HELICOPTERS: AW609 SHIP TRIALS ON CVH-550 “CAVOUR”					
11:45	12:30	ERF 2025 : A VIEW FROM THE IC AND THE ORGANIZER					
12:30	13:00	LUNCH BREAK					
13:00	13:30						
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 1	DYNAMICS 1		AIRCRAFT DESIGN 1	UNMANNED ROT. 1	AIRCRAFT SYSTEM 1
		SESSION CHAIR: Arnaud Le Pape	SESSION CHAIR: Alan Irwin		SESSION CHAIR: Riccardo Bianco Mengotti	SESSION CHAIR: Sebastian Topczewski	SESSION CHAIR: Pierluigi Capone
13:30	14:00	Paper 000 Improved SA Turbulence Model For Hovering Rotor Using Production Limiter <i>Yoonpyo Hong, Walid Khier, Gunther Wilke</i>	Paper 016 Experimental and Numerical Investigation of Rotor-Rotor Dynamic Interactions in a Tilting Multirotor System <i>Tanuj Sharma, Brano Titurus, Djamel Rezgui</i>		Paper 019 Enhancing a Distributed Electric Propulsion Configuration Aircraft Design with a Multidisciplinary Analysis and Optimization Approach <i>Daniele Granata, Simone Mancini, Andres Mateo-Gabin, Alex Zanotti</i>	Paper 006 System Identification Driven High-Performance Controller Design for an Agile Small Rotorcraft UAV <i>Philippe Petit, S. Seher-Weiß, J. Wartmann, A. Donkels</i>	Paper 031 Evaluation of a Ranged-Gated Viewing Sensor with a Head-Mounted Display and Advanced Flight Control Modes for Helicopter Offshore Rescue Operation <i>Malte-Jörn Maibach, Christian Walko, Arti Kalra, Niklas Peinecke, Enno Peters, Tristan Preis</i>
14:00	14:30	Paper 001 Experimental Investigation of the Vortex Ring State for Side-By-Side Tandem Propellers <i>Alberto Savino, Caterina Saglio, Daniele Granata, Alex Zanotti</i>	Paper 044 Simulator Experiments for Aeroelastic Rotorcraft-Pilot Couplings <i>Andrea Zaroni, Marek S. Lukasiewicz, Pierangelo Masarati, Michele Zilletti</i>		Paper 091 Aeroelastic-Informed Multi-Objective Optimization of Compound Helicopter Rotor Blades <i>Muhammad Muneeb Safdar, Apurva Anand, Koushik Marepally, James D. Baeder</i>	Paper 008 A New Practical Wind Estimation Technique for Unmanned Helicopters <i>Sergey Nazarov, Per-Olof Gutman</i>	Paper 047 Simultaneous Measurement of Temperature and Strain with a Bragg Grating Sensor in Polarization-Maintaining Fiber <i>Emanuele Casciaro, Diego Henriquet, Andrea Baldi, Paolo Bettini</i>
14:30	15:00	Paper 004 High-Fidelity Aerodynamic Loads Analysis Of The Double-Swept ERATO Rotor At High Thrust Forward Flight Operating Point <i>Mikel Balmaseda Aguirre, Mikel Balmaseda Aguirre, Hyeonsoo Yeo, François Richez, Rohit Jain</i>	Paper 098 Modeling and Analysis of Tiltrotor Whirl Flutter Based on Lagrange Equations of the Second Kind and Transient Perturbation Method <i>Shuai Zhang, Liangjun Li, Yiran Gong, Tianheng Yao, Haowen Wang, Chen Jiang</i>		Paper 093 Load Analysis in Yaw Maneuver: Evaluating Techniques, Airspeeds, and Configurations Effects on Rotorcraft Structural Design <i>Yagmur Bulut, Emre Taş, Pinar Arslan Dülgar, Ahmet Alper Ezertaş</i>	Paper 017 Control system tuning for Unmanned Rotorcraft using Particle Swarm Optimization Algorithm <i>Lukasz Kiciński, Sebastian Topczewski</i>	Paper 053 Design, Implementation and Flight Testing of a Stability Augmentation System for Coaxial Ultralight Rotorcraft <i>Benjamin Rothaupt, Walter Fichter, Benedikt Grebing</i>
15:00	15:30	Paper 029 Aerodynamic Interaction Between a Propeller and the Fuselage on a Lift+Cruise type eVTOL Aircraft <i>Akira Sato, Jio Maruyama, Koki Kitazawa, Yasutada Tanabe</i>	Paper 051 Towards Hybrid Testing for Helicopter Comfort <i>Berat Kaan Firat, Andrew Plummer, Aykut Tamer</i>		Paper 581 Analytical Initial Sizing of a Turbogenerator-Battery Hybrid Powerplant For eVTOL Aircraft <i>Minjun Park, Sehwan Park, Nahyeon Rho, Doyoung Kim</i>	Paper 043 Swing State Estimation and Control of Series-Connected Slung Payloads in Rotorcraft Transportation <i>Emanuele Luigi de Angelis, Elia Costantini, Fabrizio Giulietti</i>	Paper 083 AI based Sense and Avoid System for Autonomous Flight <i>Ali Yatsou, Lionel Thomassey</i>
15:30	16:00	COFFEE BREAK					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 2	DYNAMICS 2		AIRCRAFT DESIGN 2	UNMANNED ROT. 2	AIRCRAFT SYSTEM 1
		SESSION CHAIR: Alex Zanotti	SESSION CHAIR: Mark Jones		SESSION CHAIR: Riccardo Bianco Mengotti	SESSION CHAIR: Sebastian Topczewski	SESSION CHAIR: Pierluigi Capone
16:00	16:30	Paper 012 Understanding the Aerodynamics of eVTOL Outwash <i>Richard Brown</i>	Paper 106 Selection of a Dynamically Scaled Lift and Thrust-Compounded Helicopter Configuration: Key Insights from Mach-scaled Wind Tunnel Testing <i>Vivek Uppoor, Inderjit Chopra</i>		Paper 140 Validation of a Low-Fidelity Tool for Sizing Loads Prediction Across Multiple Aircraft Architectures <i>Matteo Manfredi, Thomas Soprani, Carlo Mazzoli, Riccardo Piani</i>	Paper 048 I,1 Adaptive Control for Enhancing Performance and Robustness in Cooperative Rotorcraft Transportation <i>Elia Costantini, Emanuele Luigi de Angelis, Chiara Gabellieri, Fabrizio Giulietti</i>	Paper 108 The Multicore Conundrum: Overcoming Barriers in the Adoption of Multicore Platforms in VTOL Avionics Systems <i>Claire Aventini, Yannick Degot, Frédéric Faubladiet, Louis Fabre</i>
16:30	17:00	Paper 020 Aerodynamic Investigation of a Convertible Tandem-Wing UAV Using Mid-Fidelity Numerical Simulations and Propeller Interaction Experimental Data <i>Sergio Esteban, Javier Martinez-Lorenzo, Alessandro Cocco, Alberto Savino, Alex Zanotti</i>	Paper 113 A Mid-Fidelity Aeroelastic Coupling Framework for Analyzing Flutter Dynamics in Rotorcraft Applications <i>Moritz Linder, Muhammed Kursat Yurt, Ilkay Yavrucuk</i>		Paper 151 A Bio-Inspired Hybrid Flapping Wing Rotor for High-Efficiency Micro Rotorcraft <i>Xun Huang, Linghai Lu, James Whidborne, Marilena Pavel</i>	Paper 193 Study of a Semantic Segmentation Algorithm for Disaster Assesment in an Edge Computing Environment <i>Gianluca Parnisari, Enrico Targhini</i>	Paper 161 A Practical Approach for Aircraft Systems Requirements Verification in Compliance with ARP4754 <i>Nicole Cardili, Filippo Simonetti, Valerio Zanetti, Maurizio Parolini</i>
17:00	17:30	Paper 025 A Multi-fidelity, Multi-Tested Approach for the Aerodynamic Design of Propellers <i>Tao Zhang, Mark Woodgate, George Barakos, Yu Luo</i>	Paper 114 Innovative and Bench-Tested Numerical Demonstrator for Hybrid Electric Propulsion Design <i>Adrien Parpinel, Jessica Neufond, Lionel Duvermy</i>		Paper 156 Design for Additive Manufacturing: Integrating Structural Optimization and Printability Analysis for Aerospace Components <i>Bianca Omedé, Simone Festa, Maurizio Tirelli, Gabriele Fantoni, Sergio Sartori, Antonio Mattia Grande</i>	Paper 204 Icing Wind Tunnel Tests of 15” Propeller on Altitude <i>Iris David Du Mutel de Pierrepont Franzetti, Federica Sapone, Giuseppe Quaranta, Matteo Mirafiori, Riccardo Parin</i>	Paper 191 Automatic Landing from Hover for Conventional Helicopters <i>Tommaso Gadarco, Stefano Capocchiano, Matteo Zampini, Antonio La Barbera, Antonio De La Mata Chico</i>
17:30	18:00	Paper 026 Evaluation of Speed Effect on Dynamic Stall Based on Low and High Fidelity Aeroelastic Rotor Simulations <i>François Richez, Ilyès Berhouni, Joëlle Bailly</i>	Paper 128 Conceptual Modeling and Analysis of a Nonlinear Dynamic Vibration Absorber for Helicopter Applications <i>Ozkan Karayigit, Vedat Ziya Dogan, Halit Suleyman Turkmen, Ali Tatar</i>		Paper 168 DynaPyVTOL: a simulation code for VTOL aircraft flight dynamics and control early evaluations <i>Pierre-Marie Basset, Aurélie Nicole, Simon Verley, Fabrice Cuzieux, Laurent Binet</i>	Paper 210 Control Design Framework for Automated Landing of a VTOL Drone on a Naval Ship Deck in Adverse Weather <i>Ole Pfeifle, Tijmen Pollack, Stefan van ’t Hoff, George Tzanetos Alevras, Jan-Willem van Doorn, Mark Voskuilj, Eelco Frickel</i>	Paper 565 Power Generation on a Rotating Frame for Helicopter Ice Protection Systems <i>Luigi Bottasso, Alessandro Bazzi, Enrico Morelli, Giorgio Dalla Costa</i>
18:00	18:30		Paper 137 Fluctuating Harmonic Control Algorithm for Active Vibration Control of Helicopter Fuselage <i>Kai Lang, Pinqi Xia, Xiao Wang</i>		Paper 201 Long-Term Effects of Moisture Absorption in CF/PEKK Composites <i>Antonio Mattia Grande, Vivek Sarma Harihara Sarma, Enrico Chemello, Alexandros Stefanakis, Gabriele Fantoni, Maurizio Tirelli</i>	Paper 227 Ducted Co-Rotating Rotors as an Alternative for UAV Propulsion: An Experimental Aeroacoustic Study <i>Pawel Kekus-Kumor, Adam Sieradzki</i>	Paper 664 Continuous Alert Level Detection in Flight Data Time Series Using Machine Learning <i>Gabriel de Champeaux de la Boulaye, Arnaud Polette, Jean-Philippe Pernot, Ammar Mechouche, Ali Yatsou</i>
18:30	19:00						
19:00	21:00	WELCOME COCKTAIL					

START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 3	DYNAMICS 3		AIRCRAFT DESIGN 3	UNMANNED ROT. 3 / ACOUSTICS 1	UAM 1
		SESSION CHAIR: Luigi Vigevano	SESSION CHAIR: Giuseppe Quaranta		SESSION CHAIR: Alan Irwin	SESSION CHAIR: Rainer Heger	SESSION CHAIR: Stefan Van't Hoff
8:30	9:00	Paper 034 Extracting Rotor Induced & Profile Power from CFD - A Proof-of-Concept Study <i>Albert Abraham, Pierce Hart, Sven Schmitz</i>	Paper 149 Tiltrotor Wind-Tunnel Model Whirl Flutter with Mid-Fidelity Aerodynamics and Mechanical Friction <i>Paolo De Vita, Gianni Cassoni, Marco Morandini, Pierangelo Masarati, Federico Fonte, Marco Favale, Stefan van 't Hoff</i>		Paper 136 ATA: the Advanced Tiltrotor Aircraft by LEONARDO <i>Riccardo Bianco Mengotti, Carlo Cassinelli, Cristian Lilliu, Luca Medici, Matteo Pecoraro, Luca Sampugnaro, Luca Viganò</i>	Paper 516 The Main Activities of Research and Development in KARI Related to Recent Unmanned Helicopter <i>Deog-Kwan Kim, Sanghyun Chae, Youngjung Kee, Ilkyung Park</i>	Paper 014 Piloted Simulation Assesment of Minimum-Energy Transition Control Strategies <i>Namuk Kang, Linghai Lu, James Whidborne, Declan Saunders and Wen-Chin Li</i>
9:00	9:30	Paper 046 Evaluation of Shaft Angle Effects on Dynamic Stall Based on Low and High Fidelity Aero-Elastic Rotor Simulations <i>Ilyès Berhouni, Joëlle Bailly, François Richez</i>	Paper 150 Comparative Dynamic Analysis of Tiltrotor Drive Train Configurations using the Transfer Matrix Method <i>Bo Li, Pierangelo Masarati, Xiao Wang</i>		Paper 618 Aerodynamic Analysis and Design of a Mars Rotor with Tandem Airfoil Configurations <i>Cheng Chi, Ricson Thanolil Rejimon, Thomas Homer</i>	Paper 662 Development and Flight Testing of a Hydrogen Fuel Cell Powered Helicopter UAV <i>Victor Zappek, Cornelius Kauffmann, Ilkay Yavrucuk</i>	Paper 225 Simulation of AAM Aircraft Operations in Urban Turbulent Airwake Environments <i>Jan Goericke, Marilyn J. Smith, Dooyong Lee</i>
9:30	10:00	Paper 058 Numerical Simulation of the Brownout of a Helicopter Rotor in HIGE Conditions by Coupling a Free-Wake Methodology to a Particle Lagrangian Approach <i>Antonio Visingardi</i>	Paper 164 Numerical Investigation of Helicopter Mast Bumping Susceptibility in Low-G Conditions <i>Philipp Kunze, Christoph Keßler, Klausdieter Pahlke</i>		Paper 644 Analysis of High Flight Speeds on Compound Rotorcraft Design <i>Peter Weiland, Kagan Atci, Dominik Schwinn</i>	Paper 673 Rotor Blade Design for a Coaxial Helicopter in Martian Atmosphere in Hover and Forward Flight <i>Stefan Hoenes, Ilkay Yavrucuk</i>	Paper 090 Minimum Power Incremental Control Allocation Using Real-Time Power Measurements <i>Sinan Çimen, Walter Fichter</i>
10:00	10:30	Paper 061 Maximum Thrust Studies of an Isolated Rotor with CFD - Turbulence Modelling and Grid Sensitivities <i>Gunther Wilke, Robin Gerlach</i>	Paper 181 Wind Tunnel Test and Aeroelastic Model Validation of Electrical Lift-Thrust Units <i>Davide Balatti, Michal Szydlowski, Michele Zilletti, Andrea Duina, Enrico Sabatino, Pierangelo Masarati</i>		Paper 661 Optimal Design of Vectored Thrust eVTOL Rotor Blades <i>Tianheng Yao, Yiran Gong, Liangjun Li, Shuai Zhang, Chen Jiang, Haowen Wang</i>	Paper 009 Experimental Validation of Rotor Broadband Noise Models for AAM in Urban Environment <i>Remco Habing, P. Admiraal, R. Bakker, H. Dekker, K. Knepper</i>	Paper 100 Vectored Thrust eVTOL Takeoff/Landing Control Strategies under Crosswind Conditions <i>Liangjun Li, Yingjie He, Haowen Wang, Chen Jiang</i>
10:30	11:00	Paper 621 Investigation Ground and Obstacle Effects on the Aerodynamics of UAM Aircraft in Full Configuration <i>Chan Ho Song, Sang Min Son, Da-Bin Jung, Rho Shin Myong, Hakjin Lee</i>			Paper 806 Development of a New Generation Rotor for Tiltrotors – From Preliminary Design to Flight Test Readiness <i>Andrea D'Andrea</i>	Paper 039 Aerodynamics and Aeroacoustics Response of Low-Reynolds Number Propellers with Unequal Blade Spacing <i>Dima Usov, Timos Chronis, Antonio Filippone</i>	Paper 131 Towards Determining Wind Disturbance Levels for an Urban Air Mobility Aircraft Through Simulation-Based Flight Testing <i>Nithya D S, Agata Rylko, Vincenzo Muscarello, Man Liang, Giuseppe Quaranta</i>
11:00	11:30	COFFEE BREAK					
11:30	12:00	PROFESSOR JAMES WANG, NTU SINGAPORE - A DISSEMINATION ON INDUSTRIAL AND RESEARCH			APPROACH DIFFERENCIES ALL AROUND THE WORLD. A LIFE EXPERIENCE		
12:00	12:30	TXT GROUP - DIGITAL TRANSFORMATION. AN INDUSTRIAL VIEW					
12:30	13:30	LUNCH BREAK					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 4	DYNAMICS 4		TEST & EVALUATION 1	ACOUSTICS 2	ENGINES 1
		SESSION CHAIR: Alex Zanotti	SESSION CHAIR: Giuseppe Quaranta		SESSION CHAIR: Neil Taylor	SESSION CHAIR: Rainer Heger	SESSION CHAIR: Michele Delli Paoli
13:30	14:00	Paper 065 A High-Efficiency Damped Delta Trim Method Tightly Coupling Lagrangian and Hybrid Lagrangian-Eulerian Methods <i>Yi Yuan, Luigi Vigevano</i>	Paper 551 Whirl Flutter Suppression with Passive Dynamic Vibration Absorbers <i>Hande Erturan, Ali Tatar</i>		Paper 078 Flight Envelope Opening of a VTOL UAS <i>Arnaud Mesnil, Guillaume Varra</i>	Paper 040 Surrogate Modeling Based Aeroacoustic Optimization of an eVTOL Propeller in Cruise Flight Conditions <i>Elias Peter, Jan-Arun Faust, Marco Stuhlpfarrer</i>	Paper 027 Comparative Analysis of Performances of Different Motor-Propeller Combinations for the Characterization of Electric Motors Efficiency <i>Sergio Esteban, Mario Navarro-Zea</i>
14:00	14:30	Paper 069 Advanced Free Vortex Wake Method for Variable RPM Rotors <i>Ye Yuan, Yuxi Chen, Hamed Haddad Khodaparast, Alper Celik</i>	Paper 235 Pusher Propeller Non-Harmonic Actuation for Active Vibration Control <i>Henry F. Malarkey V, Edward C. Smith, Sven U. Schmitz, Jianhua Zhang, Matthew W. Floros</i>		Paper 129 T-625 GÖKBEY Fire Extinguishing System Performance Survey <i>Can Esen, Emre Sancar, Akay Bayat, Taylan Çakıroğlu, Ahmet Alper Ezertaş</i>	Paper 101 Noise Estimation of an Electric Machine for a Parallel Hybrid Helicopter Propulsion System <i>Sebastian Hakansson</i>	Paper 037 Electrothermal Model and Simulation of an Electric Aircraft Battery System and Current State Assessment of High-Performance Lithium Cathode Materials <i>Antonio Andreoli, Riccardo Pirrello, Cristina Antonioli</i>
14:30	15:00	Paper 075 Validation of an Aeroelastic Numerical Tool for Rotor Performance in Hover <i>Alessandro Cocco</i>	Paper 653 Rotor Dynamics Modeling Using Coupled Multibody Dynamics and a GPU-Accelerated Vortex Particle Solver <i>Navarajah Subramaniam, Muhammed Kursat Yurt, Ilkay Yavrucuk</i>		Paper 162 A Machine Learning Approach for Data-Driven Enhancement of Rotorcraft Development Emulation Tools <i>Filippo Simonetti, Nicole Cardili, Valerio Zanetti</i>	Paper 121 Experimental Investigation of the Acoustic Signature of a Quad-rotor eVTOL Aircraft in Hover <i>Gemma Bucherelli, Luyiza Das, Donato Grassi, Daniele Granata, Alex Zanotti</i>	Paper 153 High Speed Gears Overheating due to Lubrication <i>Paolo Pisani, Federico Montagna, Stella Serafini, Mirco Bagni, Massimo Forni, Andrea Sangiovanni, Lorenzo Alari, Alberto Bardinelli, Stefano Doldi, Sergio Sartori</i>
15:00	15:30	Paper 081 Experimental Study of Axial Spacing Effects on Stacked Rotor Performance in Hover and Forward Flight <i>Paskal Magier, Matthieu David, Benjamin Maury, Hachimi Fellouah</i>			Paper 169 Test Program to Develop and Extend Technological Maturity of a Weight-Optimized Single-Piece Composite Drive Shaft for Tail Drive Line Application <i>Sebastien Barlet-Bas, François Malburet, Bruno Pierrel, Cédric Lopez, Bruno Pierrel, Axel Moricaud, Bassem Ben Said</i>	Paper 124 Comprehensive Aerodynamic and Acoustic Insights into the Volocopter-2X During Flight <i>Moritz Muth, Manuel Keßler</i>	
15:30	16:00	COFFEE BREAK					
15:45	16:00	Neural Concept and Leonardo - A Vision on AI usage					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 5	FLIGHT MECHANICS 1		TEST & EVALUATION 2	ACOUSTICS 3	UAM 2
		SESSION CHAIR: Luigi Vigevano	SESSION CHAIR: Marilena Pavel		SESSION CHAIR: Neil Taylor	SESSION CHAIR: Rainer Heger	SESSION CHAIR: Stefan Van't Hoff
16:00	16:30	Paper 103 Rotor Aerodynamic Interference of Aerial-Aquatic Vehicles in Free Water Surface Effect <i>Qi Zhan, Yumin Yang</i>	Paper 002 High-Speed Compound Rotorcraft Flight Control Design and Assessment <i>Johannes Wartmann, Peter Weiland, Kagan Atci</i>		Paper 509 Hovering Rotor FM of the URBAN-Rescue Wind Tunnel Model <i>Berend G. van der Wall, Oliver Schneider, Gunther A. Wilke</i>	Paper 187 Lattice Boltzmann Simulation of Transonic Rotor Aerodynamics and Acoustics <i>Gianluca Romani, Naina Pisharoti, Damiano Casalino</i>	Paper 171 Design of Wind Tunnel Rig for the Test of a Single Electrical Lift Thrust Unit During Conversion Maneuver <i>Giacomo Lazzaro, Stefano Bedin, Antonio Tomaselli, Federico Pellegrino, Vincenzo Muscarello, Pierangelo Masarati, Michele Zilletti</i>
16:30	17:00	Paper 142 Experimental Investigation of Vortex Ring State for Multicopters <i>Giosuè Longobardo, Alexander Heintz, Johannes Braukmann, C. Christian Wolf, Jochen Raddatz, Tommaso Astarita, Fabrizio De Gregorio, Anthony Gardner, Markus Raffel</i>	Paper 041 Influence of Float Volume on Helicopter Flotation Stability <i>Simon Todter, Andreas Peters, Jens Neugebauer, Stefan Harms, Ould el Moctar</i>		Paper 212 Predicting The Loads Of Autopilot Executive Systems Based On Digital Twin Strategy Modeling <i>Radoslaw Raczynski, Jacek Malecki</i>	Paper 196 Aeroacoustic Analysis of a Transitioning Vectored-Thrust/ Tilt-Rotor UAM Vehicle Using the LB/VLES Method <i>Federico Di Verniere, Emanuele Sticchi, Damiano Casalino, Daniele Ragni, Riccardo Zamponi</i>	Paper 517 Effect of Structural Nonlinearities on Aeroelastic Stability of a Wing-Propeller System <i>Giacomo Lazzaro, Giuseppe Quaranta, Vincenzo Muscarello</i>
17:00	17:30	Paper 144 Analysis of Tandem Propellers Interference with a Hybrid Eulerian-Lagrangian Method <i>Yi Yuan, Luigi Vigevano</i>	Paper 042 The Use of Discrete Rotating Virtual Blades to Suppress the N/Rev Oscillations in Flight Mechanics Analyses <i>Pierluigi Capone, Anna Abà</i>		Paper 215 Online Monitoring of Whirl Flutter during ATILA Wind Tunnel Testing <i>Keith Soal, Marc Boswald, Robin Volkmar, Jan Schwochow, Martin Tang, Carsten Thiem, Alessandro Velo, Federico Fonte, Marco Favale, Stefan van 't Hoff</i>	Paper 508 Directional Noise Reduction Via Rotor Phase-Shifting for Multirotor Aircraft <i>Emanuele Luigi de Angelis, Francesco Sessini, Diego Donnini, Aldo Chella, Thorsten Schwarz, Jianping Yin, Gabriele Bellani</i>	Paper 527 Efficient Prediction of Aerodynamic Interference in Multirotor Systems <i>Furkat Yunus, Gianluca Romani, Damiano Casalino, Marilena D Pavel, Mirjam Snellen</i>
17:30	18:00	Paper 155 Application of Low-Fidelity Methods to eVTOL Propeller Icing and Performance Degradation <i>Aishwerya Gahlot, Paul H. von Hardenberg, Lakshmi Sankar</i>	Paper 054 Analytical Linearization of Rotor Simulation in Ground Effect Using a Coupled Panel and Viscous Vortex Particle Method in State-Space Form <i>Hussien A. A. H. Hussien, Umberto Saetti</i>		Paper 220 Automated Flight Maneuver Quality Assessment for Aircraft Testing <i>Ozan Ege Camci, Mehmet Onder Efe</i>	Paper 518 Experimental Database for AAM Noise Assessment in Urban Environment <i>Kylie Knepper, Paul Admiraal, Karel Lammers</i>	Paper 801 Design of a Multi-Vehicle Management System (MVMS) <i>Paolo Bux, Alberto Toth, David Frisini</i>
18:00	18:30		Paper 066 Bridging the Gap: Data-Driven Method for Linearized Model Fidelity Enhancement <i>Matteo Mamino, Marco Bergamasco, Giorgio Maisano</i>		Paper 636 Piloted Simulator Evaluation of Automatic Flight Control Modes for Helicopter Offshore Rescue Operation in Degraded Visual Environment <i>Arti Kalra, Malte-Jörn Maibach</i>	Paper 626 Acoustic and Aerodynamic Installation Effect on Phase-Controlled Small Rotor-Rotor Configurations <i>Jianping Yin, Karl-Stephane Rossignol, Fabio Delduchetto, Paolo Candeloro, Tiziano Pagliaroli</i>	
20:00	22:00	GALA DINNER					

START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 6	FLIGHT MECHANICS 2		TEST & EVALUATION 3	SIMUL. & TRAINING 1	ENGINES 2
		SESSION CHAIR: Arnaud Le Pape	SESSION CHAIR: Marc Hoefinger		SESSION CHAIR: Neil Taylor	SESSION CHAIR: Sebastian Topczewski	SESSION CHAIR: Michele Delli Paoli
8:30	9:00	Paper 159 Sensitivity of Inflow Determination Techniques for Rotor-Blade Actuator Line Models <i>Ronan Boisard, Stéphanie Péron, Dylan Jude, Shirzad Hosseinverdi, Jay Sitaraman</i>	Paper 074 Steady Aeromechanics Modelling of Tiltrotor Take-Off and Landing Manoeuvres <i>Andrei-Sebastian Rotaru, Antonio Filippone</i>		Paper 624 Design of an Adaptive Wind Tunnel Model for the Investigation of Different Rotor Configurations for an Emergency Physician Shuttle Concept <i>Henning Mainz, Oliver Schneider, Peter Weiland, Kagan Atci</i>	Paper 126 Uncertainty Quantification for Rotorcraft Simulation: The Propagation of Modelling Uncertainties to Handling Qualities <i>Marilena Pavel, Ellidth Radcliff</i>	Paper 205 Impact of Parameter Variations on the Performance of Overlapping Propellers <i>Sergio Esteban, Javier Martínez-Lorenzo, Julian Giménez-Zafra</i>
		Paper 198 Airbus RACER – CFD Rotor Simulation Challenges at High Speed <i>Enric Roca León, Martin Embacher, Damien Desvigne, Paul Eglin</i>	Paper 174 Stability and Control of a Coaxial Quadcopter with Rotor-On-Rotor Interactional Aerodynamics <i>Dogyu Jun, Umberto Saetti, Ondrej Juhasz</i>		Paper 646 Operational Modal Analysis Using Modified Eigensystem Realization Algorithm on Whirl Tower Data <i>Ongun Hazar Aslandoğan, Matti Mitropoulos, Ilkay Yavrucuk</i>	Paper 035 Objectively Evaluating Short Stroke Motion Systems in Helicopter Flight Simulation <i>Boris Englebert, Guido Tillema</i>	Paper 236 A Longitudinal Life Cycle Study of Lithium Polymer Batteries for AAM <i>Lee Whitcher, Kaleb Patel, Walther Chong, Marilyn Smith</i>
9:30	10:00	Paper 216 Aerodynamics and Acoustics of Da Vinci Aerial Screws <i>Koushik Marepally, Ron Berlin, James D Baeder</i>	Paper 601 High-Fidelity CFD Maneuver Simulation in Comparison to Flight Test <i>Manuel Keßler</i>		Paper 674 Ice Adhesion Measurements on Commercial UAV Propellers for Passive Ice Protection Systems Design <i>Riccardo Parin, Iris David Du Mutel de Pierrepont Franzetti, Matteo Mirafiori</i>	Paper 062 Real-Time CFD in the Simulation of Rotorcraft Firefighting <i>Oyedoyin Dada, George N. Barakos</i>	Paper 506 Hybrid Electrical Power System for Small Scale Helicopters <i>Daniele Fattizzo, Fabrizio Giulietti, Emanuele Luigi de Angelis, Enrico Corti, Giacomo Silvagni, Giulio Avanzini</i>
10:00	10:30	COFFEE BREAK					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 7	FLIGHT MECHANICS 3		AIRWORTHINESS 1	SIMUL. & TRAINING 2	CREW STAT. 1
		SESSION CHAIR: Arnaud Le Pape	SESSION CHAIR: Marilena Pavel		SESSION CHAIR: Luca Uliano	SESSION CHAIR: Sebastian Topczewski	SESSION CHAIR: Pierluigi Capone
10:30	11:00	Paper 219 Airfoil Optimization and 3D Rotor Aerodynamics Exploration for Mars Helicopter using Direct Numerical Simulation <i>Seongjoong Park, Gunther Wilke, Yoonpyo Hong, Kwanjung Yee</i>	Paper 195 State-Space Free Vortex Wake for Flight Mechanics: A Comparative Study with Glauret and Pitt-Peters Inflow Models <i>Yusuf Bayrak, Nilay Sezer Uzol</i>		Paper 057 Finding Common Ground for Airborne Machine Learning Certification <i>Louis Fabre, Emanuele Bezzecchi, Darren Cofer</i>	Paper 519 Multi-Objective Parameter Identification for Helicopters Using Auxiliary Trim Information <i>Anna Abà, Marilena D. Pavel, Pierluigi Capone, Pieter-Jan Proesmans</i>	Paper 080 Impact of Control Augmentation on Pilot Workload During Shipboard Helicopter Hover Operation <i>Arti Kalra, Daniel Heinrich Greiwe</i>
		Paper 230 Mid-Fidelity Lattice-Boltzmann Simulations of Proprotor-Wing Aerodynamic Interactions <i>Alex Natelson, Duncan Waanders, Shreyas Ashok, Juergen Rauleder</i>	Paper 200 Helicopter Transportation as a Sling Load with Another Rotorcraft: Dynamic Behavior Study and Stabilizing Parachute Sizing <i>Alessia Tommasi, Andrea Ragazzi, Pietro Edoardo Boffa, Roberta Costantini</i>		Paper 146 Wear Debris Monitoring of Hybrid and Full Metal Ball Bearings <i>Hassan Mahmoud, Adam Oszmian</i>	Paper 170 Evaluation of Vortex Ring State (VRS) Onset and Entry Fidelity in Helicopter Flight Simulators <i>Eleni Sotiropoulos-Georgiopoulos, Alexia Payan, Charles C. Johnsno, Dimitri Mavris</i>	Paper 132 Development of a Weight System to Assess Risk of Human Errors During Maintenance Using Human Hazard Analysis Methodology <i>Letizia Erbea, Luca Castaldi, Giacomo Giblisco, Serena Fiorillo,</i>
11:00	11:30						
11:30	12:00	Paper 526 Modelling the Disc Edge Vortices for Propellers of Multirotor eVTOL in Forward Flight <i>Furkat Yunus, Gianluca Romani, Damiano Casalino, Marilena D Pavel, Mirjam Snellen</i>	Paper 214 Simulation of an UAV with Intermeshing Rotors using the Lattice-Boltzmann Method <i>Andreas Reiser, Ilkay Yavrucuk</i>		Paper 570 Certification by Simulation of an eVTOL: Credibility Analysis of Simulation Model Using Uncertainty Quantification <i>Giuseppe Quaranta, Lorenzo Favaro, Agata Rylko</i>	Paper 176 Evaluation of the Velocity Potential-Based Finite-State Model for Ground Effect Using a State-Space Free Vortex Wake Model <i>Andro Metry, J. V. R. Prasad, Cecilia Cannone, Batin Bugday, Umberto Saetti</i>	Paper 145 Comparison of Helicopter Pilots' Gaze Behaviour During Different Flight Tasks with Different Flight Characteristics <i>Daniel Greiwe, Tim Jusko</i>
12:00	12:30	ALFRED GESSOW AWARD FOR VFS FORUM 81 BEST PAPER - EASA HELICOPTER VORTEX-RING-STATE					
12:30	13:30	EXPERIMENTAL RESEARCH PROJECT - Laurent Binet, ONERA - Philippe Casquez, DGA-EV - Raffaele Di Caprio, EASA					
12:30	13:30	LUNCH BREAK					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		AERODYNAMICS 8	FLIGHT MECHANICS 4 / HISTORY 1		OPERAT. ASPECTS 1	MANUFACTURING 1 / SIMUL. & TRAINING 3	CREW STAT. 2
		SESSION CHAIR: Luigi Vigevano	SESSION CHAIR: Andrea Bianchi		SESSION CHAIR: Tim Neville	SESSION CHAIR: Giuseppe Quaranta	SESSION CHAIR: Marc Hoefinger
13:30	14:00	Paper 534 Rotor Blade Dynamic Stall: from Large Eddy Simulations to Reduced Order Models <i>Giacomo Baldan, Francesco Manara, Gregorio Frassoldati, Carlo Cassinelli, Alberto Guardone</i>	Paper 072 Leonardo's Aerial Screw 500 Years Later: a Review of the 37 th VFS Students Design Competition <i>Riccardo Bianco Mengotti, James D. Baeder, Marilena D. Pavel, Giuseppe Quaranta, Marilyn J. Smith</i>		Paper 165 Systematic Determination of Aircraft Inertia Properties by Selective Assembly of Optional Kits and Payload Permutations <i>Alessandro Masi, Pieter Elffers, Francesco Scorcelletti</i>	Paper 045 Manufacturing of 3D Printed Metal Components for Helicopter Drive System <i>Tommaso Tirelli, Sergio Sartori, Dario Bonanno, Lorenzo Alari, Paolo Pisani, Federico Montagna, Nicola Borlin, Martina Morsilli</i>	Paper 173 Multimodal Cueing in Precision Hovering Tasks: Predicting Pilot Cognitive Workload Via Physiological Measurements <i>Gabriele Luzzani, Michael Morcos, Umberto Saetti</i>
		Paper 539 An Innovative Lifting-Line Model for Proprotors in Axial Flight <i>Gregorio Frassoldati, Giovanni Bernardini, Massimo Gennaretti</i>	Paper 805 The Theory, the Reality and the Future of the Civil Tiltrotor Convertiplane <i>Andrea D'Andrea, F. Russo, M. Delli Paoli, A. Zaccaria</i>		Paper 038 Proposal for a Method of Comparing CO ₂ Emissions for Helicopters <i>Vincent Pepe, Jeremy Jimenez, Vincent Routhieau, Frederic Ripolles, Pierre-Marie Basset</i>	Paper 213 Process and Post-Processing Optimization of a High-Strength Aluminum Matrix Composite Fabricated by LPBF <i>Marco Bona, Giovanni Agostoni, Gabriele Fantoni, Maurizio Tirelli, Antonio Mattia Grande</i>	Paper 183 Convertiplane Control: Assessment of the Collective and Throttle Lever (CATL) in Pilot-in-the-Loop Simulations <i>Andrea Pedrioli, Anna Abà, Pierluigi Capone, Danilo Di Blasio, Luca Viganò, Gianfranco Cito</i>
14:00	14:30						
14:30	15:00	Paper 591 Development of a Nonlinear Reduced-Order Model for Spatio-Temporal Urban Canyon Airwakes <i>Jeremy Seeyave, Marilyn J. Smith</i>	Paper 223 Frequency Domain Identification of Full Scale Helicopter Dynamics <i>Ongun Hazar Aslandoğan, Natalia Cejudo Trillo, Ilkay Yavrucuk</i>		Paper 107 Can Autogyros Be Utilised in Emergency Medical Services? <i>Aykut Tamer, Joel Nagy, George Williams</i>	Paper 194 Flight Simulator Testing of a Variable Speed Helicopter Drivetrain using Electric Variators <i>Jonas Koch, Bastian Bauer, Ilkay Yavrucuk</i>	Paper 197 Trajectory-Based Obstacle Avoidance and Pilot Cueing Via 3D Conformal Symbology in Degraded Visual Environments <i>Ceren Esmek, Rahul Tauro-Padival, Karen M. Feigh, J.V.R. Prasad</i>
15:00	15:30	Paper 569 Assessment of URANS modeling of Dynamic Stall via Reynolds Stress Tensor Perturbations <i>Federico Vegetti, Giulio Gori</i>	Paper 659 A Comparison of Piloting Technique During Simulated and In-flight Autorotation Manoeuvres <i>Mushfiqul Alam, Michael Jump</i>		Paper 024 Proactive Fault Detection and Component Planning to Support Helicopter Logistic Processes <i>Massimo Manzini, Giulia Romani, Alessio Pagliarin</i>	Paper 800 A Digital Approach to Ship-Helicopter Operations Clearance <i>Christopher Dadswell, Nicholas Fernandez, Mark D White, Neale Watson, Daniel Newton-Young, David Souza-Branco, Daniella York, Dylan Coyle, Ieuan Owen, John Goodby</i>	
15:30	16:00	COFFEE BREAK					
START	END	ROOM MARCO POLO	ROOM ELENA CORNER		ROOM ARTURO FERRARIN	ROOM ANTONIO VIVALDI	ROOM ANDREA PALLADIO
		SAFETY 1	FLIGHT MECHANICS 5		OPERAT. ASPECTS 2	SIMUL. & TRAINING 4	STRUCTURES 1
		SESSION CHAIR: Alex Zanotti	SESSION CHAIR: Pierluigi Capone		SESSION CHAIR: Giuseppe Quaranta	SESSION CHAIR: Tim Neville	SESSION CHAIR: Pierangelo Masarati
16:00	16:30	Paper 138 AI Safety: Performance Metrics and Failure Modes <i>Claudia Ranieri, Pietro Ottavio Lecis, Luca Castaldi</i>	Paper 562 Flight Dynamics and Control of a Coaxial Teetering-Rotor Ultralight Helicopter With Rotor-on-Rotor Interactions <i>Umberto Saetti, Tale Kreienkamp, Süleyman Ozkurt, Walter Fichter</i>		Paper 804 European MUM-T (eMUM-T) Flight Demonstration With MUSER Program <i>Lionel Thomassey, Filippo Montovani, Xavier Le Vern</i>	Paper 073 Machine Learning Modeling of Advanced Air Mobility Rotor Inflow from a Mid-Fidelity Aerodynamic Solver <i>Alaaddin Furkan Uzunkaya, Pierangelo Masarati</i>	Paper 105 Direct-HIP Aluminium Matrix Composites for Lightweight Structural Rotorcraft Component Performance and Supply Chain Efficiency <i>Peter Lewis, Andrew Tarrant, Stefan Surrey, Andreas Frehn, Xinyi Hao, Daniel Foster, Alexander Rack, Milo Shaffer, Qianqian Li, Ash Robson, Bjorn Reetz</i>
		Paper 532 A Computational Framework for Early-Stage eVTOL Crashworthiness Evaluation <i>Edoardo Novembre, Sebastiano Di Mauro, Paolo Astori, Alessandro Airolidi</i>	Paper 598 Optimal Flare and Landing of a Helicopter with Tail Rotor Failure <i>Hikmet Berkay Ayik, Yusuf Onur Arslan</i>		Paper 546 Predictive Maintenance for Rotorcrafts: A Data-Driven Approach with Machine Learning Algorithms for Enhanced Availability <i>Nicolò Vallana, Gianbattista Dario Natale, Federico Guglielmin, Andrea Ricci, Domenico Andreocci, Alessandro Scandroglio</i>	Paper 557 Development of a Ship Dynamic Interface Synthetic Environment for a Rotary-Wing Unmanned Air Vehicle <i>Binoy Manimala, Sean Bignell, Samuel Newton</i>	Paper 628 Analysis of the Impact Resistance of Adhesively Bonded, Curved Polycarbonate Windshields <i>Lars Bühler, Stefan Andreas Ritt, Dorothea Schlie, Nathalie Toso, Heinz Voggenreiter, Matthias Tretter, Patrick Kronhofmann, Enkhchuluun Leege</i>
16:30	17:00						
17:00	17:30		Paper 615 A Multi-Physics Finite Element Model for the Crashworthiness of Electric Vertical Take-Off and Landing Aircraft and Its Lithium-Ion Battery: A Preliminary Study <i>Luca Riva, Alessandro Giustina, Marco Anghileri, Stefano Dolci, Cing-Dao Kan, Leyu Wang</i>		Paper 803 Applications of AI-Enhanced Low-Visibility Vision Systems to Rotorcraft Missions <i>Simone Gobbi, Emanuele Bezzecchi, Yemaya Bordain, Carlo Tiana, Maria Pirson</i>	Paper 651 Tuning of Motion Cueing for Virtual Reality Flight Simulators <i>Marek Lukasiewicz, Margaux Touzard, Giuseppe Quaranta</i>	Paper 178 Additive Manufacturing Component Certification Strategy <i>Giovanni Agostoni, Andrea Giannéo, Fabrizio Montagnoli, Mariella Pesetti, Maurizio Tirelli</i>
17:30	18:00						
18:30	19:00	ERF CLOSURE					