

Plenary Lectures overview

Date	Speaker		Hall	Location
Monday, 04 September	<i>How the synergy of international cooperation, science-research, and human involvement is fueling space industry development;</i> Dunay Badirkhanov	10:40 - 11:15	Aula Magna G. Galilei	Palazzo Bo
	<i>Advanced Simulation and Computing at Stanford University;</i> Gianluca Iaccarino	11:15 - 11:50		
	<i>The interdisciplinary dimensions of the space civilisation: from geopolitics to outreach;</i> Franco Malerba	11:50 - 12:25		
Tuesday, 05 September	<i>Space It Up – The Italian Partnership for Space Science and Engineering;</i> Erasmus Carrera	10:00 - 10:30	Aula Magna Beato Pellegrino	Complesso Beato Pellegrino, Dipartimento di Studi Linguistici e Letterari
	<i>Centro Nazionale per la Mobilità Sostenibile MOST: an Overview of National Research Perspectives for Air Mobility;</i> Giorgio Guglieri	10:30 - 11:00		
Wednesday, 06 September	<i>Unveiling Didymos mysteries: the Hera mission;</i> Ian Carnelli	11:50 - 12:20	Aula Magna Beato Pellegrino	Complesso Beato Pellegrino, Dipartimento di Studi Linguistici e Letterari
	<i>Open innovation on the example of ZAL (Center of applied aeronautical research);</i> Roland Gerhards	12:20 - 12:50		
Thursday, 07 September	<i>Laminar Separation Bubble Noise in Low-Reynolds-Numbers Rotors;</i> Daniele Ragni	08:30 - 09:00	Aula Magna Beato Pellegrino	Complesso Beato Pellegrino, Dipartimento di Studi Linguistici e Letterari
	<i>Aerotecnica Missili & Spazio: Updates and Call for Papers;</i> Sergio De Rosa	09:00 - 09:30		

Monday, 04 September 2023, parallel sessions, 14:30-15:50

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Satellite and Space Systems I	Fluid-Dynamics I	Materials & Aerospace Structures I	Aeronautical Systems I
Chair	E. Lorenzini	F. Picano	A. Pagani	G. Di Rito
14:30	M. Sabatini*, G.B. Palmerini, P. Gasbarri, F. Angeletti, <i>Facility for Validating Technologies for the Autonomous Space Rendezvous and Docking to Uncooperative Targets</i>	Enrico Galli*, Gregorio Frassoldati, Davide Prederi, Giuseppe Quaranta, <i>Assessment and optimization of dynamic stall semi-empirical model for pitching aerofoils</i>	Laura Pernigoni*, Ugo Lafont, Antonio Mattia Grande, <i>Self-healing flexible materials for large space structures</i>	Rosario Arcuri*, Roberta Masciullo and Roberto Bertola, <i>Neural networks for the identification of degraded components of aircraft fuel quantity system</i>
14:50	Antonio Gigantino*, Alfredo Renga, Maria Daniela Graziano, <i>Considerations on baseline design for a distributed SAR configuration based on chronogram</i>	Giacomo Baldan*, Alberto Guardone, <i>Pattern recognition of the flow around a pitching NACA 0012 airfoil in dynamic stall conditions</i>	Francesco Dal Corso*, Panagiotis Koutsogiannakis, Diego Misseroni, Davide Bigoni, <i>recent results on variable-length structures: actuation and dynamic stabilization</i>	Marco Fiorio*, Roberto Galatolo, Gianpietro Di Rito, <i>Hardware-in-the-loop validation of a sense and avoid system leveraging data fusion between radar and optical sensors for a mini uav.</i>
15:10	Andrea Delfini, Roberto Pastore*, Fabio Santoni, Michele Lustrino and Mario Marchetti, <i>Scientific Activity of Sapienza University of Rome Aerospace Systems Laboratory on the Study of Lunar Regolith Simulants, Focusing on their Effect on the Microwave Fields Propagation</i>	Luigi Cutrone*, Antonio Schettino, <i>Rans Transition Model Predictions on Hypersonic Three-Dimensional Forebody Configuration</i>	Giuliano Guarino* and Alberto Milazzo, <i>Nonlinear mechanical analysis of aerospace shell structures through the discontinuous Galerkin method</i>	Sofia Caggese*, Marco Fioriti, Flavio Di Fede, <i>A parametric model for thermal management system for more electric and hybrid aircraft</i>
15:30	G. Bianchi*, S. Mariotti, M.F. Montaruli, P. Di Lizia, M. Massari, M.A. De Luca, R. Demuru, G. Sangaletti, L. Mesiano, I. Boreanaz, <i>The new transmitting antenna for BIRALES</i>	Francesco Bonelli*, Davide Ninni, Gianpiero Colonna and Giuseppe Pascazio, <i>A Finite-Volume Hybrid WENO/central-difference shock capturing approach with detailed state-to-state kinetics for high-enthalpy flows</i>	Leonardo Barilaro, Lorenzo Olivieri, Mark Wylie, Joseph Borg, <i>Exploring aerospace advancements and global collaborations: a comprehensive analysis of MCAST's aerospace program in Malta</i>	Roberto Guida*, Antonio Carlo Bertolino, Andrea De Martin, Giovanni Jacazio and Massimo Sorli, <i>Preliminary Design of an Electromechanical Actuator for eVTOL Aircrafts in an Urban Air Mobility Context</i>

Monday, 04 September 2023, parallel sessions, 16:20-17:40

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Satellite and Space Systems II	Fluid-Dynamics II	Materials & Aerospace Structures II	Aeronautical Systems II
Chair	E. Lorenzini	G. Pascazio	P. Gasbarri	G. Di Rito
16:20	M. C. Noviello*, N. Favaloro, <i>Continuous empowering with laser power transmission technologies for isru moon assets: cira approach</i>	Giulio Malinverno*, Javier Blasco Alberto Jon Lecumberri SanMartin, <i>Quantum Computing CFD simulations: state of the art</i>	Giuseppe Mantegna, Carmelo Rosario Vindigni*, Davide Tumino, Calogero Orlando, Andrea Alaimo, <i>Comparison of lattice core topologies in sandwich structures</i>	Aleksander Suti*, Gianpietro Di Rito, Roberto Galatolo, Luca Sani, Giuseppe Mattei, <i>Experiments and simulations for the development of a dual-stator pmsm for lightweight fixed-wing uav propulsion</i>
16:40	Francesca Pelliccia*, Raffaele Minichini, Maria Salvato, Salvatore Barone, Salvatore Dario dell'Aquila, Vincenzo Esposito, et al., Alfredo Renga, <i>Preliminary design of a CubeSat in loose formation with ICEYE-X16 for plastic litter detection</i>	Salvatore Esposito* and Domenic D'Ambrosio, <i>Analysis of plasma formation during hypersonic flight in the earth atmosphere</i>	Alfonso Pagani*, Alberto Racionero Sánchez-Majano, <i>Analysis of the manufacturing signature on AFP-manufactured variable stiffness composite panels</i>	Salvatore Bassolillo, Egidio D'Amato, Massimiliano Mattei, Immacolata Notaro*, <i>Target Localization with a Distributed Kalman Filter over a Network of UAVs</i>
17:00	David Paolo Madonna*, Paolo Gasbarri, Mauro Pontani, Fabrizio Gennari Luigi Scialanga Andrea Marchetti, <i>A revisited and general kane's formulation applied to very flexible multibody spacecraft</i>	Donizetti Alessandro*, Bellosta Tommaso, Gallia Mariachiara, Guardone Alberto, <i>Multi-step ice accretion on complex three-dimensional geometries</i>	Francesco Scabbia*, Mirco Zaccariotto, Ugo Galvanetto, <i>Surface node method for the peridynamic simulation of elastodynamic problems with Neumann boundary conditions</i>	Guida Michele, Marulo Giovanni, Marulo Francesco*, <i>Landing Gear Shock Absorbers Guidelines</i>
17:20	Monica Mozzato, Samuele Enzo, Riccardo Lazzaro, Marco Minato*, Giulia Bemporad, Davide Visentin, Francesca Filippini, Alain Dalla Via, Andrea Farina, Elena Pilone, Federico Basana, Lorenzo Olivieri, Giacomo Colombatti, Alessandro Francesconi, <i>Concept and feasibility analysis of the alba cubesat mission</i>	Luca Placco*, Giulio Soldati, Alessio Aboudan, Francesca Ferri, Matteo Bernardini, Federico Dalla Barba and Francesco Picano, <i>High-fidelity simulation of the interaction between the wake of a descent capsule and a supersonic parachute</i>	Andrea Vincenzo De Nunzio*, Giada Faraco, Nicola Ivan Giannoccaro, Arcangelo Messina, <i>Crack localization on a statically deflected beam by high-resolution photos</i>	

Tuesday, 05 September 2023, parallel sessions, 08:30-09:50

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures III	Fluid-Dynamics III	Satellite and Space Systems III	Space Flight Mechanics I
Chair	C. Bisagni	F. Bonelli	E. Lorenzini	F. Bernelli
08:30	Maria Cinefra* and Andrea Rubino, <i>Adaptive Finite Elements based on Carrera Unified Formulation for meshes with arbitrary polygons</i>	Manuel Carreño Ruiz* and Domenic D'Ambrosio, <i>Large Eddy Simulations and Reynolds-Averaged Navier-Stokes Simulations of Separation-Induced Transition using an Unstructured Finite Volume Solver</i>	Chiara Bertolini, Riccardo Cipollone, Andrea De Vittori, Pierluigi Di Lizia, Mauro Massari*, <i>Space object identification and correlation through AI-aided light curve feature extraction</i>	A. Almonte*, I. Ziccardi, A. Adriani, A. Marchetti, M. Pontani, <i>Low-energy earth-moon mission analysis using low-thrust optimal and feedback control</i>
08:50	A. Pagani, E. Zappino, R. Masia*, F. Bracaglia and E. Carrera, <i>Thermal buckling analysis and optimization of vat structures via layer-wise models</i>	Guagliardo Davide, Cestino Enrico, Nicolosi Gabriele, Guarino Enrica, Viridis Antonio, Alfero Andrea, Pittalis Domenico and Sabella Mattia Luigi, <i>Impact of a wedge in water _assessment of the modeling keyword, presence of cavitation and choice of the filter most suitable for the case study</i>	Alex Caon, Luca Lion, Lorenzo Olivieri, Francesco Branz*, Alessandro Francesconi, <i>Development of a smart docking system for small satellites</i>	Mark Wylie*, Leonardo Barilaro, <i>The application of modal effective mass for pcb friction lock compliance against spacecraft launch random vibration spectrum.</i>
09:10	E. Zappino*, M. Petrolo, R. Masia, M. Santori and N. Zobeiry, <i>An analytical tool for studying the impact of process parameters on the mechanical response of composites</i>	Vincenzo Gulizzi*, <i>Thermal fluid-structure interaction by discontinuous Galerkin methods</i>	Alex Caon*, Martina Imperatrice, Mattia Peruffo, Francesco Branz, Alessandro Francesconi, <i>AUTOMA project: technologies for autonomous in orbit assembly operations</i>	Direnc Atmaca* and Mauro Pontani, <i>Near-optimal feedback guidance for low-thrust earth orbit transfers</i>
09:30	L.M. Cardone*, S. De Rosa, G. Petrone, G. Catapane, A. Squillace, L. Landolfi, A. L. H. S. Detry, <i>Acoustic characteristics evaluation of an innovative metamaterial obtained through 3D printing technique</i>	Vincenzo Barbato*, Matteo Fiore, Francesco Nasuti, <i>Conjugate Heat Transfer applied to Transitory Analysis for Rocket Engine Cooling Systems Design</i>	Chilin Laura*, Bedendo Martina, Banzi Davide, Casara Riccardo, Costa Giovanni, Dolejsi Elisabetta, Quitadamo Vincenzo, Trabacchin Nicolò, et al., Francesconi Alessandro, <i>Feasibility analysis of a cubesat mission for space rider observation and docking</i>	Fabio Celani, <i>Reduced-Attitude Stabilization for Spacecraft Boresight Pointing Using Magnetorquers</i>

Tuesday, 05 September 2023, parallel sessions, 11:30-13:10

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures IV	Fluid-Dynamics IV	Satellite and Space Systems IV	Space Flight Mechanics II
Chair	S. Ricci	R. Savino	E. Lorenzini	F. Bernelli
11:30	Christian Bianchi*, Pietro Aceti, Giuseppe Sala, <i>Hygrothermal effects in aeronautical composite materials subjected to Freeze-Thaw cycling</i>	D'Aniello Francesco*, Antonio Catalano Pietro Favalaro Nunzia, <i>Assessment of Aerodynamics of Low Martian Atmosphere within the CIRA program TEDS</i>	Tobia Armando La Marca*, Giorgio Isoletta, Michele Grassi, <i>Analysis of Small Spacecraft Mars Aerocapture Through a Single-Event Drag Modulation</i>	Edoardo Maria Leonardi*, Mauro Pontani, <i>Trajectory optimization and multiple-sliding-surface terminal guidance in the lifting atmospheric reentry</i>
11:50	Davide Airoidi*, Pietro Aceti, Giuseppe Sala, <i>Polymer matrices for composite materials: monitoring of manufacturing process, mechanical properties and ageing using fiber-optic sensors</i>	Antonio Esposito*, <i>A combustion-driven facility to study phenomenologies related to hypersonic sustained flight</i>	Luca Capocchiano*, Michele Maestrini, Mauro Massari, Pierluigi Di Lizia, <i>Onboard autonomous conjunction analysis with optical sensor</i>	Silvano Sgubini*, Giovanni B. Palmerini, <i>Analytic Formulation for J2 Perturbed Orbits</i>
12:10	Alessandro De Gaspari*, Vittorio Cavalieri and Nicola Fonzi, <i>An Energy-Based Design Approach in the Aero-Structural Optimization of a Morphing Aileron</i>	Giulio Soldati*, Alessandro Ceci, Sergio Pirozzoli, <i>Development of a DNS solver for compressible flows in generalized curvilinear coordinates</i>	Stefano Mungiguerra, Raffaele Savino*, Paolo Vernillo, Luca Ferracina, et al., Marta Albano, <i>Mini-IRENE, a Successful Re-Entry Flight of a Deployable Heatshield Capsule</i>	Riccardo Cipollone, Pierluigi Di Lizia*, <i>Low-thrust Maneuver Anomaly Detection of a Cooperative Asset using Publicly Available Orbital Data</i>
12:30	A. Airoidi *, M. Riva, E. Novembre, A.M. Caporale, G. Sala, M. De Stefano Fumo, and L. Cavalli, <i>A meso-scale model of progressive damage and failure in LSI-produced ceramic matrix composites for aerospace applications</i>	Francesca Rossetti*, Marco Pizzarelli, Rocco Pellegrini, Enrico Cavallini, and Matteo Bernardini, <i>Numerical Tank Self-Pressurization Analyses in Reduced Gravity Conditions</i>	Anese Giovanni*, Colombatti Giacomo, Brunello Alice, et al., Lorenzini Enrico C., <i>Electro-thermal dynamic simulations and results of a deorbiting tethered system</i>	Juan Luis Gonzalo*, Camilla Colombo, Pierluigi Di Lizia, Andrea De Vittori, et al. Diego Escobar Antón, <i>Efficient Models for Low Thrust Collision Avoidance in Space</i>
12:50	Davide Bigoni*, Francesco Dal Corso, Andrea Piccolroaz, Diego Misseroni, Giovanni Nosell, <i>Flutter Instability in Elastic Structures</i>	Giuseppe Pezzella, Antonio Viviani*, <i>Aerodynamic Analysis of a High-Speed Aircraft from Hypersonic down to Subsonic Speeds</i>	Simone Galleani, Thomas Berthod, Alex Caon, Luca Lion*, Federico Basana, et al., Alessandro Francesconi, <i>Mechanical and Pneumatic Design and Testing of a Floating Module for Zero-gravity Motion Simulation</i>	

Tuesday, 05 September 2023, parallel sessions, 14:25-15:45

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures V	Space Propulsion I	Satellite and Space Systems V	Space Flight Mechanics III
Chair	P. Gasbarri	F. Celani	F. Topputo	F. Bernelli
14:25	Chiara Bisagni*, <i>Can We Use Buckling to Design Adaptive Composite Wings?</i>	F. Barato*, A. Ruffin, M. Santi, M. Fagherazzi, N. Bellomo, D. Pavarin, <i>Update on green chemical propulsion activities and achievements by the university of padua and its spin-off T4i</i>	Casini Chiara, P. Chioetto, Comisso A., Corso, F. Frassetto, P. Zuppella, V. Da Deppo, <i>Simulations for in-flight stellar calibration aimed at monitoring space instruments optical performance</i>	Marco Lombardo*, Luis Gomez Casajus, Marco Zannoni, Igor Gai, Edoardo Gramigna, Paolo Tortora, Elisabetta Dotto, Marilena Amoroso, Simone Pirrotta, Valerio Di Tana, Biagio Cotugno, Silvio Patruno, Francesco Cavallo, and the LICIAcube Team, <i>An overview of the ArgoMoon and LICIAcube flight dynamics operations</i>
14:45	D. Misseroni*, P.P. Pratapa, K. Liu, G.H. Paulino, <i>Reprogrammable Frustration and Tunable mechanical properties in Origami Metamaterials</i>	Angelo Romano*, Daniele Ricci, Francesco Battista, <i>IDnumerical simulations aimed to reproduce the operative conditions of a lox/lch4 engine demonstrator.</i>	Andrea Troise*, Paolo Celli, Maria Cinefra, Vittorio Netti, Alessandro Buscicchio, <i>Reduced-order modelling of the deployment of a modified flasher origami for aerospace applications</i>	Franco Bernelli-Zazzera, Camilla Colombo, Mattia Recchia*, <i>Re-entry predictions of space objects and impact on air traffic</i>
15:05	Riccardo Augello*, Erasmo Carrera, Alfonso Pagani and Sergio Pellegrino, <i>Folding simulation of TRAC longerons via unified one-dimensional finite elements</i>	Antonio Sannino*, Stefano Mungiguerra, Sergio Cassese, Raffaele Savino, Alberto Fedele, Silvia Natalucci, <i>Fast Reconfiguration Maneuvers of a Micro-Satellite Constellation based on a Hybrid Rocket Engine</i>	Giulio Polato, Andrea Valmorbida, Alice Brunello, Giovanni Anese, Sebastiano Chiodini, Giacomo Colombatti, Enrico C. Lorenzini, <i>Deployment profile analysis for tethered deorbiting technologies</i>	
15:25	Guagliardo Davide*, Cestino Enrico and Nicolosi Gabriele, <i>Numerical-analytical evaluation about the impact in water of an elastic wedge using the SPH method</i>		G.Colombatti*, A. Aboudan, M. Bartolomei, S.Chiodini, A. Dattolo, G. Noci, F. Sarti, T.Bilotta, A.Colosimo, <i>The Janus COM mechanism onboard the Juice probe to the Jovian System</i>	

Tuesday, 05 September 2023, parallel sessions, 16:15-17:35

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures VI	Space Propulsion II	Satellite and Space Systems VI	Aircraft Design and Aeronautical Flight Mechanics I
Chair	S. De Rosa	F.Celani	F. Topputo	L. Trainelli
16:15	Federica Angeletti*, Paolo Gasbarri, Marco Sabatini, <i>Data-driven deep neural network for structural damage detection in composite solar arrays on flexible spacecraft</i>	Stefano Mungiguerra*, Daniele Cardillo, Giuseppe Gallo, Raffaele Savino, Francesco Battista, <i>Tests and Simulations on 200N Paraffin-Oxygen Hybrid Rocket Engines with different Fuel Grain Lengths</i>	Ignazio Ciufolini, Antonio Paolozzi, Emiliano Ortore, Claudio Paris*, Erricos C. Pavlis, John C. Ries and Richard Matzner, <i>Comparison of LARES 1 and LARES 2 Missions - One Year After the Launch</i>	Sergio De Rosa*, Marco Cinque, Giuseppe Petrone and Leonardo Lecce, <i>Cruising by air and sea: brief history, status and outlook for a submersible aircraft</i>
16:35	Angela Russo*, Andrea Sellitto, Concetta Palumbo, Rossana Castaldo and Aniello Riccio, <i>A numerical parametric study on delamination influence on the fatigue behaviour of stiffened composite components</i>	Alessandro Finazzi*, Filippo Maggi, Tobias Lips, <i>Thermite-for-Demise (T4D): Thermite Characteristics Heuristic Optimization on Object- and Spacecraft-Oriented Re-entry Models</i>	Loïc James Azzalini* and Dario Izzo, <i>Tracking Particles Ejected from Active Asteroid Bennu with Event-Based Vision</i>	Richiardi Giacomo*, Gori Oscar, Graziani Samuele, Viola Nicole, <i>Low-Boom Supersonic Business Jet: Aerodynamic Analysis and Mission Simulation towards a CO2 Emission Standard</i>
16:55	Antonio Garofano*, Andrea Sellitto, and Aniello Riccio, <i>On the Use of Double-Double Design Philosophy in the Redesign of Composite Fuselage Barrel Components</i>	Emanuele Resta*, Gaetano Maria Di Cicca, Michele Ferlauto and Roberto Marsilio, <i>Numerical and experimental assessment of a linear aerospike</i>	Amy Thomas, Jai Grover, Dario Izzo and Dominik Dold*, <i>Totimorphic Structures for Space Application</i>	Giulio Avanzini*, Giovanni Curiazio, Lorenzo Vampo, <i>A tool for risk assessment after a catastrophic event during suborbital flight operations</i>
17:15	Giuliano Guarino*, Pablo Antolin, Alberto Milazzo and Annalisa Buffa, <i>Immersed Boundary-Conformal Coupling of Cylindrical IGA Patches</i>		Stefano Lopresti, Federico Basana*, Lorenzo Olivieri, Cinzia Giacomuzzo, Alessandro Francesconi, <i>Overview of spacecraft fragmentation testing</i>	

Wednesday, 06 September 2023, parallel sessions, 8:30-10:10

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Aeronautical Propulsion	XR and Human Factors for future air mobility	Satellite and Space Systems VII	Vibroacoustics
Chair	F. Ponti	S. Bagassi	F. Topputo	P. Gardonio
8:30	Ainslie D. French*, Giuseppe Mingione, Antonio Schettino, Luigi Cutrone, Pietro Roncioni, <i>Studies in Hydrogen Micromix Combustion Technologies for Aircraft Applications</i>	Sara Bagassi, Marzia Corsi*, et al., Sandhya Santhosh, <i>Maturity-based taxonomy of eXtended Reality technologies in aircraft lifecycle</i>	Giuseppe Guidotti, Giuseppe Governale*, Nicole Viola, Ingrid Dietlein, , et al., Giada Dammacco, <i>Pushing the limits of re-entry technology: an overview of the Efesto-2 project and the advancements in inflatable heat shields</i>	Giulia Mazzeo*, Mohamed Ichchou, Giuseppe Petrone, et al., Sergio De Rosa, <i>Experimental application of pseudo-equivalent deterministic excitation method for the reproduction of a structural response to a turbulent boundary layer excitation</i>
8:50	Francesco Piccionello*, Grazia Piccirillo, Nicole Viola. <i>Performance Assessment of Low-By-Pass Turbofan Engines for Low-Boom Civil Supersonic Aircraft</i>	Jürgen Teutsch*, <i>Innovative Ideas for the Use of Augmented Reality Devices in Aerodrome Control Towers</i>	Federico Toson*, Alessio Aboudan, Carlo Bettanini, Giacomo Colombatti, Irene Terlizzi, Sebastiano Chiodini, Lorenzo Olivieri, <i>The ATEMO device: a compact solution for earth monitoring</i>	Paolo Gardonio*, Sofia Baldini, Emiliano Rustighi, Ciro Malacarne, Matteo Perini, <i>In-Vacuo Structured Fabrics For Vibration Control</i>
9:10	Valeria Borio*, Guido Saccone, et al., Nicole Viola, <i>Conceptual design emissions evaluation for the STRATOFly MR3 vehicle</i>	Tommaso Fadda*, Sara Bagassi, Marzia Corsi, <i>ADS-B Driven Implementation of an Augmented Reality Airport Control Tower Platform</i>	M. Cardi*, M. Pavoni, D. Calvi, F. Perez, P. Martino, I. Carnelli, <i>The Hera Milani Mission</i>	G. Catapane*, G. Petrone, O. Robin, J.-C. Gauthier-Marquis, S. De Rosa, <i>Labyrinth Quarter-Wavelength Tubes Array for the Reduction of Machinery Noise</i>
9:30	Andrea Battiston*, Andrea Magrini, et al, James Alderman, <i>Numerical and experimental studies on BLI propulsor architectures</i>	Giuseppe Iacolino*, Antonio Esposito, Calogero Orlando, Andrea Alaimo, <i>A Brief Review of Pilots' Workload Assessment using Flight Simulators: Subjective and Objective Metrics</i>	Lorenzo Olivieri*, Cinzia Giacomuzzo, Stefano Lopresti, Alessandro Francesconi, <i>Simulation of in-space fragmentation events</i>	Ada Ranieri*, Simone De Carolis, et al., Leonardo Soria, <i>Comparative study of shock response synthesis techniques for aerospace applications</i>
9:50		Jessica Herzig*, Fabian Reimer, et al., B. Nagel, <i>Applying an Interior VR Co-Design Approach for the Medical Deployment Vehicle of the Future</i>	E. Blazquez, D Izzo*, F. Biscani, R. Walker and F. Perez-Lissi, <i>Small Celestial Body Exploration with CubeSat Swarms</i>	Mattia Rossi, Martino C. Moruzzi*, et al. Maria Cinefra, <i>Vibro-acoustic analysis of additively manufactured acoustic metamaterial via CUF Adaptive finite elements</i>

Wednesday, 06 September 2023, parallel sessions, 10:40-11:40

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures VII	Air Traffic Control, Aircraft Operations and Navigation	Aeroacoustics I	Space Propulsion III
Chair	P. Gasbarri	F. Plivetti & S. Bagassi	F.P. Adamo	F. Celani
10:40	M. Lo Cascio*, I. Benedetti, A. Milazzo, <i>Virtual element method for damage modelling of two-dimensional metallic lattice materials</i>	G. D'Angelo*, G. Pompei, A. Manzo, G. Riccardi, and U. Ciniglio, <i>Integration in controlled airspace: definition and validation of link loss contingency procedures for RPAS in Terminal Manoeuvring Areas</i>	Francesco P. Adamo*, Mattia Barbarino, Antonio Visingardi, Adolfo Sollazzo, Luciano De Vivo, <i>Aeroacoustic Assessment of Blended Wing Body configuration with Low Noise Technologies</i>	Nabil Souhair*, <i>Numerical Suite for the Design, Simulation and Optimization of Cathode-less Plasma Thrusters</i>
11:00	Marianna Orrico*, Mariamelia Stanzione, Brigida Silvestri, Bruno de Gennaro, Fabiana Tescione, <i>Effects of different surface treatments of aluminium alloy aa2024-t3 on the adhesion and corrosion properties of aerospace coatings</i>	Luciano Blasi, Egidio D'Amato*, Immacolata Notaro, Gennaro Raspaolo, <i>Hybrid graph-clothoid based path planning for a fixed wing aircraft</i>	Giuseppe Dilillo*, Paul B. Murray, Nicola Gravagnone, Massimiliano Di Giulio, <i>Leonardo I4N research program – Design of novel acoustic liners for aero engine nacelles</i>	Raoul Andriulli*, Nabil Souhair, Luca Fadigati, Mattia Magnani, Fabrizio Ponti, <i>Particle Migration Modeling in Solid Propellants</i>
11:20	Gennaro Di Mauro, Michele Guida*, Fabrizio Ricci, Leandro Maio, <i>Dynamic Buckling Structural Test of A CFRP Passenger Floor Stanchion</i>	Giovanni B. Palmerini* and Prakriti Kapilavai, <i>Navigation Services from Large Constellations in Low Earth Orbit</i>	Beatrice De Rubeis*, Massimo Gennaretti, Giovanni Bernardini, Caterina Poggi, <i>Boundary integral formulations for predicting aeroacoustics of deformable bodies with solid or porous surfaces</i>	Marco Daniel Gagliardi, Luca Fadigati, Nabil Souhair, Fabrizio Ponti*, <i>Validation of a Numerical Strategy to Simulate the Expansion Around a Plug Nozzle</i>

Wednesday, 06 September 2023, parallel sessions, 14:05-15:45

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures VIII	Aircraft Design and Aeronautical Flight Mechanics II	Aeroelasticity I	MOST project I
Chair	A. Milazzo	L. Trainelli	M. Petrolo	S. De Rosa
14:05	Ernesto Monaco*, Fabrizio Ricci, <i>Deep learning algorithms for delaminations identification on composites panels by wave propagation signals analysis</i>	Antonio Carozza*, Giuseppe Mingione, Pier Luigi Vitagliano, <i>Effects of different drag laws on ice crystals impingement on probes mounted on a fuselage</i>	Carmen Talamo*, Andrea Zanoni, Davide Marchesoli, Pierangelo Masarati, <i>On the influence of airframe flexibility on rotorcraft pilot couplings</i>	Francesca DeCrescenzo, Sandhya Santhosh, Millene Gomes Araujo*, Marzia Corsi, Sara Bagassi, et al., Joyce Adriano Losi, <i>Insights on state of the art and perspectives of XR for human machine interfaces in advanced air mobility and urban air mobility.</i>
14:25	Mirco Zaccariotto*, Atefeh Pirzadeh, Federico Dalla Barba, et al. ,Ugo Galvanetto, <i>A Peridynamics elastoplastic model with isotropic and kinematic hardening for static problems</i>	Fernando Montano*, Vincenzo Gulizzi, Ivano Benedetti, <i>Morphing technology for gust alleviation an UAS application</i>	Gianni Cassoni*, Alessandro Cocco, Aykut Tamer, Andrea Zanoni, Pierangelo Masarati, <i>Tiltrotor Whirl-Flutter Stability Analysis Using the Maximum Lyapunov Characteristic Exponent Estimated from Time Series</i>	Salvatore Corcione, Vincenzo Cusati* and Fabrizio Nicolosi, <i>Aerodynamic Design of Advanced Rear End for Large Passenger Aircraft</i>
14:45	Filippo Carnier*, Alberto Riccardo, Donati, Elena Villa, Daniela Rigamonti, Paolo Bettini, <i>Deployment of a CubeSat radiative surface through an autonomous torsional SMA actuator</i>	Lorenzo Trainelli*, Carlo E. D. Riboldi, Luca Caccetta and Gabriele Sirtori, <i>A Preliminary Sizing Methodology for Hydrogen-Burning Jetliners</i>	Riccardo Giansante*, Giovanni Bernardini, Massimo Gennaretti, <i>State-space Aeroelasticity of Deformable-camber Morphing Wings through Lifting Line Theory</i>	Luca Pustina*, Matteo Blandino, Pietro Paolo Ciottoli and Franco Mastroddi, <i>Towards Multidisciplinary Design Optimization of Next-Generation Green Aircrafts</i>
15:05	Alessandro Taraborrelli*, Alessandro Gurioli, Paride De Fidelibus, Emanuele Casciaro, Maurizio Boffadossi, Paolo Bettini, <i>Development of an FBG-based hinge moment measuring system for wind tunnel testing</i>	Filippo Trevisi*, Alessandro Croce, Carlo Riboldi, <i>Multidisciplinary design, analysis and optimization of fixed-wing airborne wind energy systems</i>	Francesco Toffol*, Sergio Ricci, <i>Aeroelastic Design and Optimization of Strut-Braced High Aspect Ratio Wings</i>	Matteo Filippi, Elisa Tortorelli, Marco Petrolo and Erasmo Carrera*, <i>Refined structural theories for dynamic and fatigue analyses of structure subjected to random excitations</i>
15:25	S. Mallardo, G. di Mauro, M. Guida, P. Russo*, Gabriella S., R. Turco, <i>Multifunctional Composites as Solid-Polymer-Electrolytes (SPE) for Lithium Ion Battery (LIB)</i>			Claudia Conte and Domenico Accardo*, <i>Improvements in On-board Systems Design for Advanced Sustainable Air Mobility</i>

Wednesday, 06 September 2023, parallel sessions, 16:15-17:15

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Materials & Aerospace Structures IX	General session I	Aeroacoustics II	MOST project II
Chair	A. Milazzo	F. Franco	F.P. Adamo	S. De Rosa
16:15	Luisa Boni, Daniele Fanteria*, Tommaso Lucchesi, <i>Buckling and Post-Buckling Response of Curved, Composite, Stiffened Panels Under Combined Loads Including Pressurization</i>	Lorenzo Dozio*, Leonardo Peri, Michelino Pagano, Pietro Nali, <i>Virtual Testing Application to ESA Micro Vibrations Measurement System</i>	Luca Abergo*, Alberto Guardone, <i>Aeroacoustics computation based on harmonic balance solution</i>	Nicolò Avogadro*, Renato Redondi, <i>Cost analysis of short-haul conventional and all-electric aircraft on regional routes in Europe</i>
16:35	Dario Campagna Vincenzo Gulizzi Alberto Milazzo Ivano Benedetti*, <i>A Boundary Element Method for Thermo-elastic Homogenization of Polycrystals</i>	Matteo Filippi*, Rodolfo Azzara and Erasmo Carrera, <i>Nonlinear transient analyses of composite and sandwich structures via high-fidelity beam models</i>	Michele Falsi*, Ismael Zaman, Matteo Mancinelli, Stefano Meloni, Roberto Camussi, Bin Zang, Mahdi Azarpeyvand, <i>Experimental investigation of the noise emitted by two different propellers ingesting a planar boundary layer</i>	L. M. Cardone*, S. De Rosa, G. Petrone, F. Franco, C. S. Greco e, <i>Recent Developments about Hybrid Propelled Aircraft: a Short Review</i>
16:55	Gennaro Di Mauro, Michele Guida*, Gerardo Olivares, Luis Manuel Gomez, <i>Structural Batteries Challenges for Emerging Technologies in Aviation</i>	Leonardo Barilaro*, Jason Gauci, Marlon Galea, Andrea Filippozzi, David Vella, Robert Camilleri, <i>BEA: Overview of a multi-unmanned vehicle system for diver assistance</i>	Riccardo Colombo*, Lorenzo Maria Pii, Gianluca Romani, Maurizio Boffadossi, <i>Predicting noise spectrum of a small drone rotor in a confined environment: a lattice boltzmann VLES analysis</i>	Sergio Bagarello* and Ivano Benedetti, <i>Electric Conversion of a General Aviation Aircraft A case study</i>

Thursday, 07 September 2023, parallel sessions, 09:40-11:00

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Aeroelasticity II	Artificial Intelligence Application I	General session II	Special Session in Memory of Professor Debei I
Chair	S. Ricci	D. Izzo & D. Dold	F. Franco	E. Lorenzini & M. Zaccariotto
09:40	Sergio Ricci*, <i>Ten years of aero-servo-elastic tests at large PoliMI's wind tunnel for active flutter control and loads alleviation</i>	Marco Petrolo*, Pierluigi Iannotti, Mattia Trombini, Mattia Melis, <i>Refinement of Structural Theories for Composite Shells through Convolutional Neural Networks</i>	Marta Albano*, Rocco Carmine Pellegrini, Roberto Bertacin, Simone Ciabuschi, Simone Illiano, Rocco Maria Grillo, Enrico Cavallini, <i>Italian Space Agency space transportation activities and programs</i>	G.Cremonese*, C.Re, the SIMBIO-SYS team, <i>SIMBIO-SYS, the remote sensing instruments on board the bepicolombo mission</i>
10:00	Luca Marchetti*, Stephan Adden, Michael Meheut, and Sergio Ricci, <i>Wind Tunnel Flutter Tests of a Strut-Braced High Aspect Ratio Wing</i>	Alessandro Casaburo*, Cyril Zwick, Pascal Fossat, Mohsen Ardabilian, Olivier Bareille, Franck Sosson, <i>Decision Trees-based Methods for the Identification of Damages in Strongly Damped Plates for Aerospace Applications</i>	G. Saccone*, N. Favalaro, <i>Dust mitigation technology for lunar exploration and colonization: existing and future perspectives</i>	Giampiero Naletto*, <i>The Wide Angle Camera of Rosetta</i>
10:20	Nicola Fonzi*, Sergio Ricci, Eli Livne, <i>New insights on limit cycle oscillations due to control surface freeplay</i>	Gennaro Scarselli*, Flavio Dipietrangelo, Francesco Nicassio, <i>SHM implementation on a RPV airplane model based on machine learning for impact detection</i>	Bettanini C. , Bartolomei M. , Aboudan A*. and Olivieri L., <i>Ascent trajectory of sounding balloons: dynamical models and mission data reconstruction</i>	Marrocchi L.*, Marchetti M., Costa F. and S.Debei , <i>Development of a modular central electronic unit (CEU) for data handling and management in martian atmosphere investigations</i>
10:40	M. Pizzoli, F. Saltari, L. Pustina, G. Mariani, G. Coppotelli, F. Mastroddi*, <i>Sloshing effects on free-body commercial aircraft aeroelastic loads</i>		I. Terlizzi*, F. Morbidini, C. Maucieri, C. Bettanini, G. Colombatti, S. Chiodini, F. Toson, M. Borin, <i>Remote Sensing Validation with In-Situ Measurements for Efficient Crop Irrigation Management</i>	Bettanini C.*, Bartolomei M. , Chiodini S. , Tasinato L. , Ramous P. , Dona' F. and Debei S., <i>Solar simulator facility for the verification of space hardware performance</i>

Thursday, 07 September 2023, parallel sessions, 11:30-12:50

(* indicates the presenting author)

Hall	Aula Magna Beato Pellegrino	3	4	5
Topic	Meeting		General session III	Special Session in Memory of Professor Debei II
Chair			F. Franco	E. Lorenzini & M. Zaccariotto
11:30	Meeting with stakeholders		Castrese Di Marino, Valeria Vercella*, Rocco Gentile, Giacomo Nasi, Stefano Centomo, <i>Requirements Definition in Support of Digital Twin Platform Development</i>	Matteo Massironi*, Francesco Sauro, Samuel J. Payler, Riccardo Pozzobon, Harald Hiesinger, Nicolas Mangold, Charles S. Cockell, Jesus Martínez Frias, Kåre Kullerud, Leonardo Turchi, Igor Drozdovskiy, Loredana Bessone, <i>The ESA pangaea programme: training astronauts in field science</i>
11:50			Fabio Frassetto*, Lorenzo Cocola, Paola Zuppella, Vania Da Deppo, Riccardo Claudi and Luca Poletto, <i>A static, refractive and monolithic fourier spectrometer for an hemera balloon flight</i>	Sebastiano Chiodini*, Giovanni Trevisanuto, Carlo Bettanini, Giacomo Colombatti and Marco Pertile, <i>Trajectory Reconstruction by Means of an Event-Camera-Based Visual Odometry Method and Machine Learned Features</i>
12:10			G. Catapane*, L.M. Cardone, G. Petrone, O. Robin, F. Franco, <i>Coupling Effect of Acoustic Resonators for Low-Frequency Sound Suppression</i>	Parzianello G.* Bartolomei M., Chiodini S., Zaccariotto M., Colombatti G., Aboudan A., Bettanini C., Debei Stefano, <i>Front cover for Space Optical Telescopes. A legacy from ROSETTA to JUICE</i>
12:30			Arrigo Avi*, Giuseppe Quaranta and Riccardo Parin, <i>New UAV ice tunnel characterization</i>	M.Cosmo, Vite parallele: UniPD, Stefano ed io.