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AIDAA2021 Congress

General programme (final)

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Program Overview

	Day 1 - 31/08/2021 Tuesday	Day 2 - 1/9/2021 Wednesday	Day 3 - 2/9/2021 Thursday	Day 4 - 3/9/2021 Friday
9:00 - 9:30	-	Keynote Lecture <i>ARIANE 6 and VEGA-C The Upcoming European launchers on the market</i> C. Colaïanni, Arianespace <i>Chair: M. Valorani, Università degli Studi di Roma "La Sapienza" (Plenary Room)</i>	Keynote Lecture <i>Challenges risen by the shift from hydraulically to electrically powered actuators</i> J.C. Marè, INSA Toulouse <i>Chair: G. Di Rito, Università di Pisa (Plenary Room)</i>	Keynote Lecture <i>Development of Structural Integrity - History and Future</i> A. Blom, Innovair <i>Chair: L. Lazzeri, Università di Pisa (Plenary Room)</i>
9:30 - 11:00	Opening Ceremony P.M. Mancarella, University of Pisa Rector M. Rega, Colonel Italian Air Force P. Di Palma, ENAC President R. Galatolo, AIDAA Tuscany President E. Carrera, AIDAA President <i>Chair: L. Lazzeri, Università di Pisa (Plenary Room)</i>	Parallel Sessions A DEVISU Project 1 B Advancing Space Access Capabilities 1 C Sensors 1 D Fluid Dynamics 3 E Remotely Piloted Aircraft Systems 3	Parallel Sessions A Stratospheric Balloons 1 B - C Aerospace Propulsion 2 D Composites 3 E Aircraft design 1	Parallel Sessions A Microsatellites 1 B Aircraft design 3 C Spaceflight Mechanics 1 D Recent topics in aerospace research 1 E -
11:00 - 11:30 Break				
11:30 - 12:15	Keynote Lecture <i>GALILEO Global Navigation Satellite System: from reality into the future</i> M. Falcone, ESA <i>Chair: R. Galatolo Università di Pisa (Plenary Room)</i>	Parallel Sessions A DEVISU Project 2 B Advancing Space Access Capabilities 2 C Sensors 2 D Fluid Dynamics 4 E Remotely Piloted Aircraft Systems 4	Parallel Sessions A Stratospheric Balloons 2 B Stratospheric Balloons 4 C Aerospace Propulsion 3 D Composites 4 E Aircraft design 2	Parallel Sessions A Microsatellites 2 B Aircraft design 4 C Spaceflight Mechanics 2 D Recent topics in aerospace research 2 E -
12:15 - 13:00	Keynote Lecture <i>Technological challenges for zero-impact air transport</i> M. Protti, Leonardo SpA <i>Chair: R. Galatolo Università di Pisa (Plenary Room)</i>			
13:00 - 14:30 Break				
14:30 - 16:00	Parallel Sessions A Fluid Dynamics 1 B Composites 1 C Structures 1 D Remotely Piloted Aircraft Systems 1 E Space Structures 1	Parallel Sessions A DEVISU Project 3 B Advancing Space Access Capabilities 3 C Sensors 3 D Structures 3 E -	Parallel Sessions A Stratospheric Balloons 3 B Stratospheric Balloons 5 C Aerospace Propulsion 4 D Additive Manufacturing E -	Parallel Sessions A Microsatellites 3 B - C Spaceflight Mechanics 3 D Recent topics in aerospace research 3 E -
16:00 - 16:30 Break				
16:30 - 18:00	Parallel Sessions A Fluid Dynamics 2 B Composites 2 C Structures2 D Remotely Piloted Aircraft Systems 2 E Space Structures 2	Parallel Sessions A DEVISU Project 4 B Advancing Space Access Capabilities 4 C Aerospace Propulsion 1 D Structures 4 E -	-	-

Parallel Sessions: Day 1

Room A

- Day 1 (31/8/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Fluid Dynamics 1 Chairperson: M. CHIATTO, Università degli Studi di Napoli "Federico II"	14:30 - 15:00	58	Riccardo Gemma	R. Gemma, A. Chiesa	AN AI APPLICATION TO INVESTIGATE "INVERSE" REYNOLDS NUMBER EFFECT
	15:00 - 15:30	21	Francesco Bonelli	F. Bonelli, D. Ninni, G. Colonna, G. Pascazio	THERMOCHEMICAL NON-EQUILIBRIUM AND HEAT TRANSFER IN A HYPERSONIC FLOW OVER A DOUBLE-CONE
	15:30 - 16:00	15	Alessandro Del Buono	A. Del Buono, G. Bernardini, A. Iafrati	MULTISECTION APPROACH FOR THE VERTICAL WATER IMPACT OF A FUSELAGE
	16:00 - 16:30		<i>Break</i>		
Session: Fluid Dynamics 2 Chairperson: M. CHIATTO, Università degli Studi di Napoli "Federico II"	16:30 - 17:00	12	Davide Ninni	D. Ninni, F. Bonelli, G. Pascazio	ANALYSIS OF SHOCK WAVE/BOUNDARY LAYER INTERACTION ON DOUBLE-WEDGE GEOMETRY
	17:00 - 17:30	114	Stefano Bortolotti	S. Bortolotti, F. F. Semeraro, M. Boffadossi	A FULLY AUTOMATED OPTIMISATION PROCEDURE FOR MULTI-AIRFOIL CONFIGURATIONS BASED ON CFD
	17:30 - 18:00	63	Antonio Colanera	A. Colanera, M. Chiatto, L. de Luca	POD AND SPOD ANALYSIS OF VERTICAL LIQUID SHEET

Room B

- Day 1 (31/8/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Composites 1 Chairperson: U. GALVANETTO, Università di Padova	14:30	- 15:00	104	Pietro Aceti	P. Aceti, P. Ballarin, S. Ghiasvand, A. Airoidi, P. Bettini, G. Sala	EFFECT OF HYGROTHERMAL AGEING ON OPTICAL FIBER-SENSORIZED COMPOSITE MATERIALS
	15:00	- 15:30	141	Riccardo Augello	R. Augello, E. Carrera, A. Pagani, D. Scano	EVALUATION OF 3D STRESS FIELD OF COMPOSITE SANDWICH STRUCTURES USING UNIFIED 1D BEAM AND 2D PLATE AND SHELL FES WITH VARIABLE KINEMATICS
	15:30	- 16:00	46	Ernesto Monaco	E. Monaco, N.D. Boffa, F. Ricci	TRAINING OF DEEP NEURAL NETWORKS AIMED AT DAMAGE RECONSTRUCTION BY FEM SIMULATION OF WAVES PROPAGATION INTO COMPOSITES THIN SHELLS
	16:00	- 16:30		<i>Break</i>		
Session: Composites 2 Chairperson: U. GALVANETTO, Università di Padova	16:30	- 17:00	18	Greta Ongaro	G. Ongaro, R. Bertani, U. Galvanetto, M. Zaccariotto	PERIDYNAMIC MODELLING AND EXPERIMENTAL VERIFICATION OF NANOCOMPOSITE PROPERTIES
	17:00	- 17:30	136	Alfonso Pagani	A. Pagani, A. R. Sanchez-Majano	ADVANCED MODELS FOR THE ANALYSIS OF VARIABLE STIFFNESS COMPOSITES WITH MANUFACTURED-INDUCED GAPS AND OVERLAPS
	17:30	- 18:00	1	Marco Petrolo	M. H. Nagaraj, I. Kaleel, E. Carrera, M. Petrolo	ELASTOPLASTIC MICROMECHANICAL ANALYSIS OF FIBRE-REINFORCED COMPOSITES WITH DEFECTS

Room C

- Day 1 (31/8/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Structures 1 Chairperson: L. LAZZERI, Università di Pisa	14:30	- 15:00	79	Pierangelo Masarati	F. Biondani, R. Zhang, M. Morandini, G. L. Ghiringhelli, P. Masarati	PARTICLE DAMPER SIMULATION TOOLS
	15:00	- 15:30	112	Fabio Biondani	F. Biondani, M. Morandini, G. L. Ghiringhelli, P. Cordisco, M. Terraneo	PARTICLE DAMPER NUMERICAL-EXPERIMENTAL CORRELATION
	15:30	- 16:00	142	Ugo Galvanetto	U. Galvanetto, T. Ni, F. Pesavento, M. Zaccariotto, B. A. Schrefler	NUMERICAL SIMULATION OF MULTIPHYSIC PHENOMENA WITH A HYBRID FEM/PERIDYNAMIC MODEL
	16:00	- 16:30		<i>Break</i>		
Session: Structures 2 Chairperson: L. LAZZERI, Università di Pisa	16:30	- 17:00	116	Raffaele Ievolella	R. Ievolella, M. Guida, N. D. Boffa, F. Marulo, B. Vitolo	MAGNESIUM ALLOY MODELLING AND VALIDATION FOR FINITE ELEMENT ANALYSIS
	17:00	- 17:30	87	Federico Bovecchi	F. Bovecchi, M. Santangelo, L. Boni, D. Fanteria, L. Lazzeri	NUMERICAL SIMULATION OF FATIGUE CRACK GROWTH IN AN OPEN-HOLE SPECIMEN
	17:30	- 18:00	140	Matteo Filippi	M. Filippi, M. Petrolo, E. Carrera	STRUCTURAL THEORIES FOR RANDOM RESPONSE OF AEROSPACE STRUCTURES UNDER STOCHASTIC LOADS

Room D

- Day 1 (31/8/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Remotely Piloted Aircraft Systems 1 Chairperson: D. ACCARDO, Università degli Studi di Napoli "Federico II"	14:30 - 15:00	19	Giuseppe D'Angelo	G. D'Angelo, P. Polledro, I. Iannitelli, M. Verrastro, F. Binotto	AUTOMATIC TAKE-OFF AND LANDING FOR ENABLING RPAS INSERTION IN NON-SEGREGATED AIRSPACES
	15:00 - 15:30	144	Francesco Schettini	M. Lucchesini, F. Schettini, G. Bertini, V. Grasso, R. Fiorenzani, A. Matera, F. Paterni, G. Mattei, D. Seni	A SAFETY-ORIENTED DESIGN FOR LIGHTWEIGHT REMOTED PILOT AIRCRAFT SYSTEMS WITH HIGH PERFORMANCE
	15:30 - 16:00	134	Claudia Conte	C. Conte, G. de Alteriis, R. Schiano Lo Moriello, D. Accardo, G. Rufino	DESIGN OF A TASK-ORIENTED ARCHITECTURE FOR THE CONTROL SYSTEM OF UNMANNED VEHICLES
	16:00 - 16:30	<i>Break</i>			
Session: Remotely Piloted Aircraft Systems 2 Chairperson: G. DI RITO, Università di Pisa	16:30 - 17:00	128	Marco Fiorio	M. Fiorio, R. Galatolo, G Di Rito, G. Mattei, A. Casazza	SENSE AND AVOID SYSTEM FOR A MINI UAV BASED ON DATA FUSION BETWEEN ELECTRO-OPTICAL AND RADAR SENSORS
	17:00 - 17:30	41	Fabio Celani	F. Celani, D. Lucarelli	MINIMUM-ENERGY TRAJECTORY GENERATION FOR QUADROTOR UAVS USING BASIS FUNCTIONS
	17:30 - 18:00	151	Domenico Accardo	G. de Alteriis, C. Conte, R. Schiano Lo Moriello, G. Rufino, D. Accardo	DESIGN OF DRONE SWARM ARCHITECTURES TO CONTRAST THE PANDEMIC SPREAD

Room E

- Day 1 (31/8/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Space Structures 1 Chairperson: P. GASBARRI, Università degli Studi di Roma "La Sapienza"	14:30 - 15:00	81	Lorenzo D'Arcangeli	L. D'Arcangeli, M. Sabatini, F. Angeletti, P. Iannelli	SCALING AND EXPERIMENTAL TESTING OF A LARGE FLEXIBLE SPACECRAFT
	15:00 - 15:30	43	Lorenzo Olivieri	L. Olivieri, L. Barilaro, C. Giacomuzzo, A. Francesconi	AN OVERVIEW OF RESEARCH ACTIVITIES AT UNIVERSITÀ OF PADOVA IN THE FIELD OF SATELLITE IMPACTS WITH SPACE DEBRIS
	15:30 - 16:00	13	Alex De Bonis	A. De Bonis, F. Angeletti, P. Iannelli	MULTI-BODY MODELLING OF A DUAL-ARM SPACE FLEXIBLE MANIPULATOR SYSTEM FOR ACTIVE DEBRIS REMOVAL
	16:00 - 16:30		<i>Break</i>		
Session: Space Structures 2 Chairperson: N. FAVALORO, Centro Italiano Ricerche Aerospaziali	16:30 - 17:00	54	Andrea Delfini	A. Delfini, R. Pastore, M. Albano, F. Santoni, F. Piergentili, G. Familiari, E. Battaglione, R. Matassa, M. Marchetti	SYNERGISTIC EFFECTS OF ATOMIC OXYGEN AND UV RADIATION ON CARBON/CARBON PLATES AT DIFFERENT ATTITUDE POSITIONS
	17:00 - 17:30	44	Guido Saccone	G. Saccone, N. Favaloro, A. Delfini, R. Pastore, F. Santoni, F. Piergentili, M. Albano, M. Marchetti	CONCEPT DESIGN FOR MANUFACTURING OF NEW ADVANCED C/C COMPOSITES FOR AEROSPACE APPLICATIONS
	17:30 - 18:00	84	Paolo Iannelli	P. Iannelli, F. Angeletti, P. Gasbarri	COMBINED ATTITUDE AND VIBRATION CONTROL FOR FLEXIBLE SPACECRAFT BASED ON MODEL PREDICTIVE CONTROL

Parallel Sessions: Day 2

Room A

- Day 2 (1/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: DEVISU Project 1 Chairperson: E. CARRERA, Politecnico di Torino	9:30	- 10:00	3	Riccardo Vescovini	R. Vescovini	MESHLESS APPROACH FOR THE ANALYSIS OF VARIABLE STIFFNESS PANELS WITH ARBITRARY SHAPES
	10:00	- 10:30	139	Marco Enea	M. Enea, F. Scabbia, A. Pagani, M. Zaccariotto, E. Carrera, U. Galvanetto	ONE-DIMENSIONAL HIGH ORDER FINITE ELEMENTS EMBEDDING 3D STATE-BASED PERIDYNAMIC SUBDOMAINS
	10:30	- 11:00	78	Jamal Najd	J. Najd1, E. Zappino, E. Carrera, W. Harrizi, Z. Aboura	A VARIABLE KINEMATIC MODEL FOR THE PREDICTION OF CAPACITANCE VARIATIONS IN EMBEDDED PZT SENSORS
	11:00	- 11:30		Break		
Session: DEVISU Project 2 Chairperson: A. PAGANI, Politecnico di Torino	11:30	- 12:00	6	Cheng Angelo Yan	C.A. Yan, R. Vescovini, L. Dozio	ANALYSIS OF VARIABLE STIFFNESS STRUCTURES USING PHYSICS INFORMED NEURAL NETWORKS
	12:00	- 12:30	133	Rodolfo Azzara	R. Azzara, E. Carrera, A. Pagani, A.R. Sanchez-Majano	NUMERICAL NONLINEAR VIBRATION-BUCKLING INVESTIGATION OF VARIABLE STIFFNESS COMPOSITE PLATE AND SHELL STRUCTURES
	12:30	- 13:00	8	Alessia Pecoraro	A. Pecoraro, D. Magliacano, G. Petrone, M. Filippi, F. Franco, S. De Rosa	PERIODICITY AND QUASI-PERIODICITY EFFECTS ON VIBRATION BAND GAPS: NUMERICAL INVESTIGATIONS ON ONE-DIMENSIONAL STRUCTURES
	13:00	- 14:30		Break		
Session: DEVISU Project 3 Chairperson: S. DE ROSA Università degli Studi di Napoli "Federico II"	14:30	- 15:00	66	Marco Grifò	M. Grifò, A. Da Ronch, A. Milazzo, I. Benedetti	HIGH-FIDELITY AEROELASTIC FRAMEWORK WITH ADVANCED STRUCTURAL MODELS
	15:00	- 15:30	75	Alberto Milazzo	I. Benedetti, D. Campagna, A. Milazzo	A STUDY ON VARIABLE STIFFNESS COMPOSITE LAMINATES UNDERGOING LOW VELOCITY IMPACTS
	15:30	- 16:00	7	Marco Pisano	M. Pisano, G. Petrone, E. Turco, S. De Rosa, P. Gardonio	DESIGN OF A TUNED VIBRATION ABSORBER (TVA) FOR APPLICATIONS IN TRANSPORT ENGINEERING
	16:00	- 16:30		Break		
Session: DEVISU Project 4 Chairperson: S. DE ROSA Università degli Studi di Napoli "Federico II"	16:30	- 17:00	17	Giuliano Guarino	G. Guarino, V. Gulizzi, A. Milazzo	A LAYER-WISE DISCONTINUOUS GALERKIN APPROACH FOR LAMINATED COMPOSITE SHELLS
	17:00	- 17:30	145	Mirco Zaccariotto	M. Zaccariotto, R. Alebrahim, P. Packo, U. Galvanetto	AN EFFECTIVE STRATEGY TO MITIGATE WAVE DISPERSION IN PERIDYNAMICS
	17:30	- 18:00	22	Francesco Scabbia	F. Scabbia, M. Zaccariotto, U. Galvanetto	AN EFFECTIVE METHOD FOR IMPOSING PERIDYNAMIC BOUNDARY CONDITIONS AND MITIGATING THE SURFACE EFFECT

Room B

- Day 2 (1/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Advancing Space Access Capabilities 1	9:30	- 10:00	56	Jacopo Guadagnini	J. Guadagnini, D. Bonetti, G. De Zaiacomo	ENTRY CORRIDOR ANALYSIS FOR VERTICAL LANDING REUSABLE LAUNCH VEHICLES
	10:00	- 10:30	67	Christopher Glaser	C. Glaser, J. Hijlkema, J. Anthoine	REVIEW OF REGRESSION RATE ENHANCEMENT TECHNIQUES FOR HYBRID ROCKET ENGINES
	10:30	- 11:00	90	Alice De Oliveira	A. De Oliveira, M. Lavagna	REUSABLE LAUNCH VEHICLES RE-ENTRY: PRELIMINARY ARCHITECTURE TOWARDS OPTIMAL GUIDANCE AND CONTROL
Chairperson: C. BACH, TU Dresden	11:00	- 11:30	<i>Break</i>			
Session: Advancing Space Access Capabilities 2	11:30	- 12:00	127	Inigo Alforja Ruiz	I. Alforja Ruiz, M. Lavagna	GUIDANCE, NAVIGATION AND CONTROL SYSTEM DESIGN FOR MULTI-PAYLOAD AND MULTI-ORBIT INJECTION
	12:00	- 12:30	107	Lucía Ayala Fernández	L. Ayala Fernández, C. Wiedemann, V. Braun	ANALYSIS OF SPACE LAUNCH VEHICLE FAILURES
	12:30	- 13:00	124	Alessia Gloder	A. Gloder, M. Tajmar, C. Bach	ADVANCING SPACE ACCESS CAPABILITIES FOR AND BY EARLY STAGE RESEARCHERS
Chairperson: C. BACH, TU Dresden	13:00	- 14:30	<i>Break</i>			
Session: Advancing Space Access Capabilities 3	14:30	- 15:00	95	Giuseppe Scarlatella	G. Scarlatella, J. Sieder- Katzmann, F. Roßberg, F. Weber, M. Tajmar, C. Bach	COLD-FLOW TESTS ON ADVANCED NOZZLE CONCEPTS IN SUBSONIC RETRO- FLOWS: DEVELOPMENT OF TEST-BENCH
	15:00	- 15:30	100	Andrea Vennitti	A. Vennitti, T. Schmiel, C. Bach, M. Tajmar	INTRODUCTION TO SENSOR INVESTIGATION FOR RLVS HEALTH MONITORING SYSTEM
	15:30	- 16:00	106	Livia Ordonez Valles, Lily Blondel Canepari	L. Ordonez Valles, L. Blondel Canepari, A. Pasini, U. Apel, M. Tajmar	GREEN PROPELLANTS AND ELECTRIC PUMP FEEDING SYSTEM: CHALLENGES AND OPPORTUNITIES OF USING THESE TECHNOLOGIES FOR FUTURE KICK STAGES
Chairperson: C. BACH, TU Dresden	16:00	- 16:30	<i>Break</i>			
Session: Advancing Space Access Capabilities 4	16:30	- 17:00	74	Riccardo Gelain	R. Gelain, A. Hauw, E. Bardotti, P. Hendrick	INVESTIGATION OF ADDITIVE MANUFACTURING TECHNIQUES FOR PARAFFIN- BASED FUEL GRAINS
	17:00	- 17:30	45	Valeria Vercella	V. Vercella, R. Fusaro, D. Ferretto, N. Viola, J. Steelant	LIFE CYCLE COST ESTIMATION FOR FUTURE REUSABLE ACCESS TO SPACE SYSTEMS
	17:30	- 18:00	92	Giuseppe Narducci	G. Narducci, G. Governale, N. Viola, J. Rimani, R. Fusaro, D. Ferretto	MICROLAUNCHERS DESIGN AND COST ESTIMATION
Chairperson: C. BACH, TU Dresden						

Room C

- Day 2 (1/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Sensors 1 Chairperson: A. RENGA, Università degli Studi di Napoli "Federico II"	9:30	- 10:00	62	Andrea De Vittori	A. De Vittori, R. Cipollone, G. Purpura, M. La Rosa, M. Massari	SPACE OBJECTS TUMBLING MOTION RECONSTRUCTION FROM LIGHT CURVES ANALYSIS WITH MACHINE LEARNING TECHNIQUES
	10:00	- 10:30	27	Giacomo Carlo Affilastro	G. C. Affilastro, M. F. Montaruli, P. Di Lizia, M. Massari	ESTIMATION OF THE ROTATIONAL DYNAMICS AND KINEMATICS OF A SPACE OBJECT USING RADAR MEASUREMENTS
	10:30	- 11:00	61	Riccardo Cipollone	R. Cipollone, A. De Vittori, P. Di Lizia, M. Massari, M. F. Montaruli, G. Bianchi, G. Pupillo, G. Naldi	MULTILAYER PERCEPTRON NEURAL NETWORK FOR LEO TRACK RECONSTRUCTION FROM MULTIBEAM RADAR MEASUREMENTS
	11:00	- 11:30		<i>Break</i>		
Session: Sensors 2 Chairperson: A. RENGA, Università degli Studi di Napoli "Federico II"	11:30	- 12:00	125	Fabio Curti	N. Zappacosta, F. Curti	AUGMENTED GYRO-STELLAR MODEL IN THE PRESENCE OF MEASUREMENTS DELAY
	12:00	- 12:30	109	Francesco Latorre	F. Latorre, D. Spiller, F. Curti	AUTONOMOUS CRATER DETECTION ON ASTEROIDS USING A FULLY-CONVOLUTIONAL NEURAL NETWORK
	12:30	- 13:00	118	Fabio Curti	I. Agostinelli, F. Curti	GYROLESS ANGULAR RATE DETERMINATION BASED ON STAR SENSOR IMAGES
	13:00	- 14:30		<i>Break</i>		
Session: Sensors 3 Chairperson: M. MASSARI, Politecnico di Milano	14:30	- 15:00	126	Fabio Curti	F. Curti, M. Mastrofini, I. Agostinelli, C. Facchinetti, L. Ansalone, A. Tuozi	STAR SENSOR IMAGE ON-BOARD PROCESSING FOR ORBITING OBJECTS DETECTION-SPOT
	15:00	- 15:30	10	Roberto Del Prete	R. Del Prete, M.D. Graziano, A. Renga	AUTOMATIC SHIP RECOGNITION IN SAR IMAGES FOR MARITIME SURVEILLANCE USING DEEP-LEARNING
	15:30	- 16:00	132	Mirco Bartolomei	M. Bartolomei, L. Olivieri, C. Bettanini	CALIBRATION ACTIVITY OF A SKY QUALITY METER FOR AUTONOMOUS LIGHT POLLUTION MEASUREMENT
	16:00	- 16:30		<i>Break</i>		
Session: Aerospace Propulsion 1 Chairperson: M. VALORANI, Università degli Studi di Roma "La Sapienza"	16:30	- 17:00	129	Domenic D'Ambrosio	D. D'Ambrosio, R. Marsilio	EFFECT OF THRUST COEFFICIENT ON SUPERSONIC RETRO-PROPULSION AERODYNAMICS: CFD ANALYSIS AND VALIDATION WITH EXPERIMENTAL DATA
	17:00	- 17:30	31	Davide Cavalieri	D. Cavalieri, G. Indelicato, A. Remiddi, P.E. Lapenna, F. Creta	THEORETICAL AND NUMERICAL MODELLING OF MULTICOMPONENT TRANSCRITICAL DIFFUSE INTERFACES
	17:30	- 18:00	93	Giuseppe Indelicato	P. E. Lapenna, A. Remiddi, G. Indelicato, M. Pizzarelli, M. Valorani, F. Creta	TOWARDS HIGH-FIDELITY NUMERICAL SIMULATIONS OF INJECTORS NEAR-FIELD IN LRE COMBUSTION CHAMBERS

Room D

- Day 2 (1/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Fluid Dynamics 3 Chairperson: B. RE, Politecnico di Milano	9:30	- 10:00	32	Giulio Gori	G. Gori, A. Guardone	MULTI-FIDELITY SURROGATE MODELS IN AERODYNAMIC OPTIMIZATION PROBLEMS
	10:00	- 10:30	64	Andrea Conte	A. Conte, M. Chiatto, L. de Luca	NUMERICAL INVESTIGATION OF PSJ ACTUATORS IN QUIESCENT CONDITIONS
	10:30	- 11:00	69	Carlo De Michele	C. De Michele, G. Coppola	AN EFFICIENT ALGORITHM FOR THE NUMERICAL INTEGRATION OF THE INCOMPRESSIBLE NAVIER-STOKES EQUATIONS FOR TURBULENT FLOWS
	11:00	- 11:30		<i>Break</i>		
Session: Fluid Dynamics 4 Chairperson: G. GORI, Politecnico di Milano	11:30	- 12:00	88	Barbara Re	B. Re, A. Guardone	AN ALE INTERPOLATION-FREE STRATEGY FOR UNSTEADY FLOW SIMULATIONS USING FINITE VOLUME AND RESIDUAL DISTRIBUTION SCHEMES OVER ADAPTIVE GRIDS
	12:00	- 12:30	68	Manuel Carreño Ruiz	M. Carreño Ruiz, D. D'Ambrosio	VALIDATION AND APPLICATION OF AERODYNAMIC SIMULATIONS IN THE MARTIAN ATMOSPHERE
	12:30	- 13:00	73	Ettore Saetta	E. Saetta, R. Tognaccini	AERODYNAMIC FORCE BREAKDOWN: STATE OF ART OF THE FAR FIELD METHODS
	13:00	- 14:30		<i>Break</i>		
Session: Structures 3 Chairperson: M. MARCHETTI, Università degli Studi di Roma "La Sapienza"	14:30	- 15:00	101	Federico Valpiani	F. Valpiani, A. Polla, P. Cicolini, G. Grilli, E. Cestino, V. Sapienza	EARLY NUMERICAL EVALUATION OF FLUID-STRUCTURE INTERACTION OF A SIMPLY WEDGE GEOMETRY WITH DIFFERENT DEADRISE ANGLE
	15:00	- 15:30	2	Huimin Zhang	H. Zhang, P. Masarati	IMPLICIT, UNCONDITIONALLY STABLE INTEGRATION SCHEMES FOR MULTIBODY SYSTEM DYNAMICS
	15:30	- 16:00	4	Alessandro Casaburo	F. Tavasso, A. Casaburo, G. Petrone, F. Franco, S. De Rosa	A LINEAR TRANSFORMATION FOR THE RECONSTRUCTION OF THE RESPONSES BETWEEN SYSTEMS IN SIMILITUDE
	16:00	- 16:30		<i>Break</i>		
Session: Structures 4 Chairperson: M. MARCHETTI, Università degli Studi di Roma "La Sapienza"	16:30	- 17:00	20	Flavio Dipietrangelo	F. Dipietrangelo, F. Nicassio, G. Scarselli, G. Petrone, A. Casaburo, S. De Rosa	MACHINE LEARNING APPLICATIONS FOR AEROSPACE STRUCTURES ASSESSMENTS
	17:00	- 17:30	65	Marco Prodan	L. Loidice, A. Brugnera, D. Di Cosmo, V. Di Domenico, R. Fallucca, S. Grendene, R. Piani, M. Prodan	DESIGN AND BUILDING A 1:8 SCALE REPLICA OF THE SIAI-MARCHETTI S55X
	17:30	- 18:00	49	Aniello Daniele Marano	A.D. Marano, F. Di Matteo, M. Guida, T. Polito, F. Marulo	THEORETICAL AND PRACTICAL ASPECTS OF MULTI-INPUT MULTI-OUTPUT TESTING

Room E

- Day 2 (1/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Remotely Piloted Aircraft Systems 3 Chairperson: A. MOCCIA, Università degli Studi di Napoli "Federico II"	9:30	- 10:00	26	Giuseppe Migliozi	A. Beccaro, L. Lo Verde, A. Martinetti, G. Migliozi, R. Prete	EUROPEAN MALE RPAS: FROM HIGH LEVEL KEY OPERATIONAL REQUIREMENT TO PRELIMINARY SYSTEM DESIGN
	10:00	- 10:30	37	Marco Fiorio	M. Fiorio, R. Galatolo, G. Di Rito	OBJECT DETECTION AND TRACKING ALGORITHMS BASED ON KLT FEATURE TRACKER FOR A SENSE AND AVOID SYSTEM
	10:30	- 11:00	59	Massimiliano Piccirillo	L. Lo Verde, M. Piccirillo	MAPS AND HAPS: A CHALLENGE OF SUSTAINABILITY FOR A NEW CLASS OF AUTONOMOUS UNMANNED AIRCRAFT SYSTEMS
	11:00	- 11:30		<i>Break</i>		
Session: Remotely Piloted Aircraft Systems 4 Chairperson: A. MOCCIA, Università degli Studi di Napoli "Federico II"	11:30	- 12:00	60	Aleksander Suti	A. Suti, G. Di Rito, R. Galatolo	HYBRID THERMO-ELECTRIC PROPULSION SYSTEM FOR CLIMBING PERFORMANCE ENHANCEMENT OF LIGHTWEIGHT FIXED-WING UAVS
	12:00	- 12:30	96	Federico Toson	F. Toson, F. De Giudici, A. Piva, P. Artusi, C. Chilò, D. Banzi, A. Toccane, P. Danieli, L. Olivieri, C. Bettanini	AVERLA: AUTONOMOUS DRONE FOR AVALANCHE RESCUE
	12:30	- 13:00	-	-	-	-

Parallel Sessions: Day 3

Room A

- Day 3 (2/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Stratospheric Balloons 1 Chairperson: M. ALBANO, Agenzia Spaziale Italiana	9:30 - 10:00	24	Angela Volpe	A. Volpe, M. Albano, M., P. A. R. Ade, R. Baldini, A. Baù, E. Battistelli, P. de Bernardis, M. Biasotti, A. Boscaleri, F. Cej, I. Colantoni, F. Columbro, G. Coppi, A. Coppolecchia, G. D'Alessandro, M. De Petris, V. Fafone, F. Fontanelli, M. Gervasi, L. Galli, F. Gatti, S. Gordon, D. Grosso, L. Lamagna, C. Magneville, L. Martinis, S. Masi, P. Mauskopf, A. May, L. Mele, A. Paiella, G. Pettinari, A. Passerini, F. Piacentini, L. Piccirillo, G. Pisano, G. Polenta, G. Presta, A. Schillaci, G. Signorelli, B. Siri, F. Spinella, A. Tartari, E. Tommasi, C. Tucker, D. Vaccaro, V. Vdovin, M. Zannoni, D. Yvon	THE OLIMPO & LSPE/SWIPE MISSIONS : ADVANCEMENT IN THE PROJECTS
	10:00 - 10:30	117	Marta Albano	M. Albano, D. Spoto, A. Volpe, P. Raizonville, A. Vargas, K. Dannenberg, R. Kirchhartz, E. Vachon, F. Friedl-Vallon, P. Ubertini, M. Abrahamsson, K. Boen, X. Dubois, N. Huret, N. Harris, K. Pfeilsticker	HEMERA: THE EUROPEAN INTERNATIONAL STRATOSPHERIC BALLOONS RESEARCH INFRASTRUCTURE
	10:30 - 11:00	105	Fabio Frassetto	F. Frassetto, L. Cocola, R. Claudi, V. Da Deppo, P. Zuppella, L. Poletto	LOW NOISE FOURIER TRANSFORM SPECTROMETER FOR A BALLOON BORNE PLATFORM
	11:00 - 11:30	<i>Break</i>			
Session: Stratospheric Balloons 2 Chairperson: M. ALBANO, Agenzia Spaziale Italiana	11:30 - 12:00	110	Vincenzo Della Corte	V. Della Corte, A. Rotundi, Z. Dionnet	DUSTER: COLLECTION AND LABORATORY ANALYSIS OF STRATOSPHERIC DUST IN THE FRAME OF HEMERA H2020 PROJECT
	12:00 - 12:30	71	Alessandro Iarocci	A. Iarocci, P. Adobbato, A. Lepore, S. Masi, G. Romeo	HERMES: HEMERA RETURNING MESSENGER
	12:30 - 13:00	76	Valentina Fanfani	V. Fanfani, G. Coppi, P. A. R. Ade, P. C. Ashton, J. E. Ausermann, J. Beall, S. E. Clark, E. G. Cox, M. J. Devlin, S. Dicker, B. J. Dober, L. M. Fissel, N. Galitzki, J. Gao, B. Hensley, J. Hubmayr, S. Li, Z. Y. Li, N. P. Lourie, I. Lowe, P. G. Martin, P. Mauskopf, F. Nati, G. Novak, G. Pisano, L. J. Romualdez, A. Sinclair, J. D. Soler, C. Tucker, M. Vissers, J. Wheeler, P. A. Williams, M. Zannoni	THE BLAST OBSERVATORY
	13:00 - 14:30	<i>Break</i>			
Session: Stratospheric Balloons 3 Chairperson: M. ALBANO, Agenzia Spaziale Italiana	14:30 - 15:00	77	Federico Nati	G. Coppi, V. Fanfani, A. Boscaleri, G. Conenna, M. Zannoni, F. Nati	AN ARCSECOND-ACCURATE ATTITUDE DETERMINATION AND CONTROL SYSTEM FOR A MULTI-PURPOSE BALLOON GONDOLA
	15:00 - 15:30	42	Alessandro Paiella	A. Paiella, P. de Bernardis, S. Masi, F. Cacciotti, F. Cavaliere, A. Coppolecchia, C. Franceschet, M. Gervas, L. Lamagna, A. Limonta, E. Manzan, A. Mennella, A. Passerini, G. Pettinari, F. Piacentini, G. Presta, E. Tommasi, A. Volpe, M. Zannoni	KINETIC INDUCTANCE DETECTORS FOR BALLOON-BORNE CMB EXPERIMENTS
	15:30 - 16:00	143	Andrea Delfini	P. Marzioli, R. Garofalo, N. Picci, E. Bedetti, L. Di Palo, L. Colletini, L. Misericola, C. Di Nunzio, P. Celesti, A. Graux, A. Gianfermo, A. Delfini, L. Frezza, F. Curianò, A. Volpe, F. Santoro, C. Romanelli, F. Piergentili, F. Santoni	THE STRAINS STRATOSPHERIC EXPERIMENT: RADIO-FREQUENCY TRACKING SYSTEMS FOR STRATOSPHERIC AND SUBORBITAL MISSIONS

Room B

- Day 3 (2/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Stratospheric Balloons 4 Chairperson: A. VOLPE, Agenzia Spaziale Italiana	11:30 - 12:00	135	Carlo Bettanini	C. Bettanini, M. Bartolomei, A. Aboudan, G. Colombatti, L. Olivieri	MEASUREMENT OF LIGHT POLLUTION AND SKY BRIGHTNESS IN A SOUNDING BALLOON FLIGHT: DATA ELABORATION THROUGH INERTIAL POINTING RECONSTRUCTION
	12:00 - 12:30	147	Salvo Marcuccio	S. Marcuccio, M. Gemignani, G. Cataldi	NEW LOW-COST STRATOSPHERIC BALLOON FLIGHT OPPORTUNITIES WITH PISA UNIVERSITÀ 'S MICROHAPS PLATFORM
	12:30 - 13:00	108	Simone Sandon	S. Sandon, L. Vitali, A. Pitarresi, M. Pulice, L. Antoniazzi, D. Magnani, C. Segna, D. Sandu, F. Toson, A. Conte, D. Panariti, M. Furiato, M. Pavan, G. Righi, S. Lopresti, G. Kamsi	O-ZONE: COMPACT DEVICE FOR STRATOSPHERIC DYNAMIC AIR SAMPLING
	13:00 - 14:30		<i>Break</i>		
Session: Stratospheric Balloons 5 Chairperson: A. VOLPE, Agenzia Spaziale Italiana	14:30 - 15:00	148	Salvo Marcuccio	S. Marcuccio, M. Gemignani, G. Cataldi, S. Gregucci, M. Andrenacci	THE ECAPS EXPERIMENT FOR SOLAR CELL CHARACTERIZATION IN THE STRATOSPHERE
	15:00 - 15:30	149	Silvano Fineschi	S. Fineschi, L. Zangrilli, D. Bonino, G. Capobianco, F. Landini, A. Liberatore, G. Massone, M. Pancrazzi, R. Susino, F. Amadori, M. Romoli	THE CORONAL MAGNETOGRAPH – CORMAG – MISSION FOR THE STRATOSPHERIC HEMERA MISSION
	15:30 - 16:00	-	-	-	-

Room C

- Day 3 (2/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Aerospace Propulsion 2 Chairperson: F. PAGANUCCI, Università di Pisa	9:30	- 10:00	115	Beatrice Latini	B. Latini, M. Fiore, F. Nasuti	HEAT TRANSFER PREDICTIONS IN ROUGH COOLING CHANNELS FOR LIQUID ROCKET ENGINES
	10:00	- 10:30	47	Mario Panelli	M. Panelli, F. Battista	FLUID SIMULATION OF ELECTRON DISCHARGE IN HALL EFFECT THRUSTER
	10:30	- 11:00	35	Arianna Remiddi	A. Remiddi, G. Indelicato, P.E. Lapenna, F. Creta	A FLAMELET-BASED NUMERICAL FRAMEWORK FOR CONJUGATE HEAT TRANSFER IN LRE RELEVANT CONDITIONS
	11:00	- 11:30		<i>Break</i>		
Session: Aerospace Propulsion 3 Chairperson: F. PAGANUCCI, Università di Pisa	11:30	- 12:00	57	Mario Panelli	A. Petronelli, M. Panelli, F. Battista	PARTICLE-IN-CELL SIMULATION OF HEAVY SPECIES IN HALL EFFECT THRUSTER DISCHARGE
	12:00	- 12:30	28	Emanuele Resta	E. Resta, R. Marsilio, M. Ferlauto	APPLICATION OF SHOCK VECTOR CONTROL TO AN AXISYMMETRIC SUPERSONIC NOZZLE
	12:30	- 13:00	30	Federico Ghioldi	F. Ghioldi, E. Gallorini, S.M. Aithal, F. Piscaglia	A CFD METHODOLOGY FOR THE OPTIMAL THERMAL DESIGN OF THE PROPULSION SYSTEM IN ELECTRIC MOTORS
	13:00	- 14:30		<i>Break</i>		
Session: Aerospace Propulsion 4 Chairperson: F. MARULO, Università degli Studi di Napoli "Federico II"	14:30	- 15:00	38	Alex Zanotti	A. Zanotti	EXPERIMENTAL INVESTIGATION OF AERODYNAMIC INTERACTION OF SIDE-BY-SIDE PROPELLERS
	15:00	- 15:30	52	Nicola Russo	N. Russo, G. M. Gagliardi, A. D. Marano, T. Polito, F. Marulo	EXPERIMENTAL PERFORMANCES EVALUATION ON COUNTER-ROTATING COAXIAL PROPELLERS FOR MULTIROTORS
	15:30	- 16:00	14	Caterina Poggi	C. Poggi, M. Rossetti	ARTIFICIAL NEURAL NETWORK SURROGATE MODELS FOR PROPELLER ARRAY NOISE RADIATION

Room D

- Day 3 (2/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Composites 3 Chairperson: E. MONACO, Università degli Studi di Napoli "Federico II"	9:30	- 10:00	29	Laura Pernigoni	L. Pernigoni, A.C. Bressi, A.M. Grande	EXPERIMENTAL CHARACTERIZATION OF SELF-HEALING NANOCOMPOSITE AND MULTILAYER SAMPLES FOR SPACE APPLICATIONS
	10:00	- 10:30	103	Fabrizio Ricci	F. Ricci, N.D. Boffa, E. Monaco	STATIC BEHAVIOR OF A STIFFENED COMPOSITE PANEL WITH A DISBONDED STRINGER
	10:30	- 11:00	48	Vincenzo Romano	V. Calvanese, V. Romano, F. Marulo	DEVELOPMENT OF AN ORIENTABLE INTENSITY PROBE FOR CURVED PANELS
	11:00	- 11:30	<i>Break</i>			
Session: Composites 4 Chairperson: F. RICCI, Università degli Studi di Napoli "Federico II"	11:30	- 12:00	113	Massimo Viscardi	M. Viscardi	DESIGN OF A VLA VERTICAL CONTROL SURFACE WITH LRTM TECHNOLOGY
	12:00	- 12:30	123	Enrico Zappino	E. Zappino, M. Petrolo, N. Zobeiry, E. Carrera	A REFINED MODELS FOR THE PREDICTION OF PROCESS-INDUCED DEFORMATIONS OF COMPOSITE STRUCTURES
	12:30	- 13:00	137	Alberto Racionero Sanchez-Majano	A.R. Sanchez-Majano, R. Azzara, A. Pagani, E. Carrera	STRESS ANALYSIS OF VARIABLE ANGLE TOW SHELLS BY HIGH-ORDER UNIFIED FINITE ELEMENTS
	13:00	- 14:30	<i>Break</i>			
Session: Additive Manufacturing Chairperson: S. BAGASSI, Università di Bologna	14:30	- 15:00	120	Marzia Corsi	M. Corsi, M.C. Moruzzi, S. Bagassi	DIMENSIONAL ACCURACY ANALYSIS OF ADDITIVELY MANUFACTURED PARTS
	15:00	- 15:30	102	Giulia Maritano	L. Loidice, P. Iavecchia, G. Campolo, G. Maritano, L. Loidice, E. Cestino, V. Sapienza	DESIGN AND MANUFACTURING THROUGH ADDITIVE MANUFACTURING OF RPAV FASTENING AND COMPONENTS
	15:30	- 16:00	121	Martino Carlo Moruzzi	M.C. Moruzzi, S. Bagassi, M. Cinefra, M. Corsi, M. Rossi	DESIGN OF ADDITIVELY MANUFACTURED METAMATERIAL FOR CABIN NOISE AND VIBRATIONS REDUCTION

Room E

- Day 3 (2/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Aircraft design 1 Chairperson: D. FANTERIA, Università di Pisa	9:30 - 10:00	55	Karim Abu Salem	K. Abu Salem, V. Cipolla, G. Palaia, V. Binante, D. Zanetti	PERFORMANCE ANALYSIS OF A SHORT-MEDIUM HAUL BOX-WING AIRCRAFT AND COMPARISON WITH CONVENTIONAL AIRCRAFT
	10:00 - 10:30	99	Oscar Gori	N. Viola, D. Ferretto, O. Gori, R. Fusaro, M. Marini, P. Roncioni, B. Çakır, A.C. Ispir, B.H. Saracoglu	STRATEGIES FOR PRELIMINARY RE-DESIGN OF A LH2 MACH 5 CRUISER CONCEPT ORIGINALLY CONCEIVED FOR MACH 8 MISSION
	10:30 - 11:00	51	Giuseppe Maurizio Gagliardi	G. M. Gagliardi, A. D. Marano, F. Marulo	CONCEPT, DEVELOPMENT AND TESTING OF AN EXPERIMENTAL DEVICE FOR WHIRL FLUTTER RESEARCH
	11:00 - 11:30		<i>Break</i>		
Session: Aircraft design 2 Chairperson: V. CIPOLLA, Università di Pisa	11:30 - 12:00	85	Vincenzo Binante	V. Cipolla, V. Binante, K. Abu Salem, G. Palaia, D. Zanetti	ADOPTION OF A DOE-BASED APPROACH FOR THE IMPLEMENTATION OF STRUCTURAL SURROGATE MODELS IN THE PRELIMINARY DESIGN OF A REGIONAL BOX-WING AIRCRAFT
	12:00 - 12:30	25	Angelo Lerro	M. Iavarone, A. Lerro, P. Gili, U. Papa, A. Chiesa	DEFINITION OF THE FLEXIBLE AIRCRAFT LONGITUDINAL MODEL FOR A PRELIMINARY CONTROL DESIGN
	12:30 - 13:00	131	Alessandro Cocco	A. Cocco, S. Mazzetti, S. van't Hoff, B. Timmerman, P. Masarati	AEROELASTIC SIMULATION FOR STABILITY ANALYSIS OF A TILTROTOR SEMI-SPAN MODEL

Parallel Sessions: Day 4

Room A

- Day 4 (3/9/2021) -

	Timeslot		Paper ID	Presenting Author	Authors	Title of full-paper
Session: Microsatellites 1	9:30	- 10:00	-	-	-	-
Chairperson: S. MARCUCCIO, Università di Pisa	10:00	- 10:30	150	Giuseppe Leccese	S. Natalucci, V. Cottini, G. Leccese	<i>Invited Presentation:</i> ITALIAN SPACE AGENCY CUBESAT ACTIVITIES
	10:30	- 11:00	146	Camilla Colombo	C. Colombo, F. Scala, M. Trisolini, J. L. Gonzalo, S. Antonetti, F. Di Tolle, R. Radaelli, F. Lisi, L. Marrocchi, M. Aliberti, A. Francesconi, L. Olivieri, M. Tipaldi	THE ENVIRONMENTAL CUBESAT MISSION E.CUBE FOR LOW EARTH ORBIT DATA ACQUISITION
	11:00	- 11:30		<i>Break</i>		
Session: Microsatellites 2	11:30	- 12:00	82	Fabrizio Stesina	F.Stesina, S.Corpino, D. Calvi, E. Bosch Borrás, J. Gonzalez Del Amo, N. Bianco	6U AND 12U CUBESAT TEST PLATFORMS FOR THE VERIFICATION OF MINIATURIZED ELECTRIC PROPULSION SYSTEMS
Chairperson: S. MARCUCCIO, Università di Pisa	12:00	- 12:30	83	Caterina Speranza	F.Stesina, S.Corpino, D.Calvi, C. Novara, C. Speranza, S.Russo	CONTROL OF THE MANOEUVRES FOR DOCKING BETWEEN CUBESATS
	12:30	- 13:00	70	Luigi Falanga	L. Falanga, G. Caso, A. Ciccarelli, F. Cuomo, S. De Masi, F. Della Vecchia, D. Di Maio, S. Gala, S. Piatti, A. Saveriano, M. Scamardella, D. Scilla, R. Tarone, A. Renga, G. Isoletta, A. Nocerino	A MICROSATELLITE MISSION TO A LONG-PERIOD COMET IN A HELIOCENTRIC INNER ORBIT
	13:00	- 14:30		<i>Break</i>		
Session: Microsatellites 3	14:30	- 15:00	72	Vincenzo Porrino	V. Porrino, A. Argirò, M. Chiariello, A. Contaldi, A. Cristiano, L. D'Albenzio, B. De Leonardis, C. Di Mauro, F. J. Fernández Fernández, M. Gargiulo, R. Guida, C. R. Ibello, G. Montano, L. Zennaro, G. Isoletta, A. Nocerino, A. Renga	SCORE: A SCIENTIFIC MISSION FOR THE EXPLORATION OF A LONG PERIOD COMET WITH MICRO/NANO SATELLITES
Chairperson: S. MARCUCCIO, Università di Pisa	15:00	- 15:30	50	Michele Grassi	G. Di Martino, A. Di Simone, M. Grassi, M. Grasso, M. D. Graziano, A. Iodice, A. Moccia, A. Renga, D. Riccio, G. Ruella, M. D'Errico, S. Cotecchia, R. Aurigemma, V. Pisacane	FORMATION FLYING SAR BASED ON CUBESAT ASSEMBLIES
	15:30	- 16:00	-	-	-	-

Room B

- Day 4 (3/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Aircraft design 3 Chairperson: A. ALAIMO, Università degli Studi di Enna Kore	9:30 - 10:00	34	Calogero Orlando	A. Alaimo, C. Orlando	NUMERICAL INVESTIGATION OF THE ACTUATOR INFLUENCES ON THE NLG ADAPTIVE DAMPING SYSTEM
	10:00 - 10:30	122	Giuseppe Palaia	G. Palaia, K. Abu Salem, V. Cipolla, D. Zanetti, V. Binante	PRELIMINARY COMPARISON OF BOX-WING AND TUBE-AND-WING HYBRID-ELECTRIC REGIONAL AIRCRAFT
	10:30 - 11:00	5	Francesco Toffol	F. Toffol, S. Ricci	AERO-SERVO-ELASTIC OPTIMIZATION IN EARLY DESIGN PHASES
	11:00 - 11:30	<i>Break</i>			
Session: Aircraft design 4 Chairperson: A. ALAIMO, Università degli Studi di Enna Kore	11:30 - 12:00	130	Fabrizio Cuomo	F. Cuomo, G. Troiano, V. Mariniello, M. Protti, F. Salvato	LEONARDO AIRCRAFT DIVISION – ELECTRIFICATION FRAMEWORK VISION – ENABLING TECHNOLOGIES AND AIRCRAFT APPLICATION
	12:00 - 12:30	86	Davide Zanetti	D. Zanetti, G. Palaia, K. Abu Salem, V. Cipolla, V. Binante	METHODOLOGY FOR THE CONCEPTUAL DESIGN OF CONVENTIONAL AND BOX-WING AIRCRAFT WITH HYBRID-ELECTRIC PROPULSION
	12:30 - 13:00	111	Bruno Di Giandomenico	B. Di Giandomenico	MBSE IN A CONTINUOUS DEVELOPMENT / INTEGRATION ENVIRONMENT – LAD EXPERIENCES

Room C

- Day 4 (3/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Spaceflight Mechanics 1	9:30 - 10:00	80	Federica Angeletti	F. Angeletti, P. Iannelli, P. Gasbarri	A DEEP REINFORCEMENT LEARNING APPROACH TO AUTONOMOUS SPACECRAFT DOCKING
Chairperson: F. BERNELLI ZAZZERA, Politecnico di Milano	10:00 - 10:30	36	Danilo Forte	D. Forte, F. Bernelli Zazzera	THE LUNAR NEAR-SIDE NAVIGATION SATELLITE SYSTEM
	10:30 - 11:00	98	Edoardo Del Vecchio	E. Del Vecchio, F. Petricca, A. Genova	PATH PLANNING AND STEREO VISION-BASED MAP UPDATE FOR NASA'S MARS 2020 PERSEVERANCE ROVER
	11:00 - 11:30	<i>Break</i>			
Session: Spaceflight Mechanics 2	11:30 - 12:00	39	Roberto Opromolla	R. Opromolla, F. Branz, A. Francesconi, A. Cenedese, R. Antonello, P. Iob, Z. Pavanello, D. Vertuani, M. Grassi, G. Fasano, A. Nocerino, C. Lombardi, C. Vela, M. Massari, C. Colombo, M. Lovera, D. Invernizzi, P. Ghignoni, L. M. Ticozzi, G. Borelli, I. Huertas, P. Simplicio	CHASER-ROBOTIC ARM COMBINED CONTROL AND OPTICAL RELATIVE NAVIGATION FOR SPACE TARGET CAPTURE
Chairperson: F. BERNELLI ZAZZERA, Politecnico di Milano	12:00 - 12:30	16	Ivan Napoli	I. Napoli, M. Pontani	DISCRETE-VARIABLE-THRUST GUIDANCE FOR ORBITAL RENDEZVOUS BASED ON FEEDBACK LINEARIZATION
	12:30 - 13:00	97	Luigi Ansalone	D. Spiller, L. Ansalone, F. Tataranni, R. Lorusso, P. Sacco, E. Lopinto	CHALLENGES OF THE EXPERIMENTAL TOOLS FOR THE ASI PRISMA MISSION: THE PREFEASIBILITY ANALYZER AND THE BACKGROUND MISSION OPTIMIZER
	13:00 - 14:30	<i>Break</i>			
Session: Spaceflight Mechanics 3	14:30 - 15:00	23	Mauro Pontani	M. Pontani, F. Celani, S. Carletta	EXPLICIT NEAR-OPTIMAL GUIDANCE AND PULSE-MODULATED CONTROL FOR LUNAR DESCENT AND TOUCHDOWN
Chairperson: F. BERNELLI ZAZZERA, Politecnico di Milano	15:00 - 15:30	40	Riccardo Masiero	R. Masiero, F. Ferrari, F. Bernelli Zazzera	ANALYSIS OF OPTIONS TO ENHANCE THE PERFORMANCE OF NEW SPACE ECONOMY DOWNSTREAM SERVICES
	15:30 - 16:00	9	Laura De Leo	L. De Leo, M. Pontani	LOW-THRUST ORBIT DYNAMICS AND PERIODIC TRAJECTORIES IN THE EARTH-MOON SYSTEM

Room D

- Day 4 (3/9/2021) -

	Timeslot	Paper ID	Presenting Author	Authors	Title of full-paper
Session: Recent topics in aerospace research 1 Chairperson: N. VIOLA, Politecnico di Torino	9:30 - 10:00	-	-	-	-
	10:00 - 10:30	89	Davide Marchesoli	D. Marchesoli, P. Garbo, A. Cocco, A. Zanoni	THE ROLE OF THE SHORT-RANGE STIFFNESS IN PILOT BIODYNAMIC RESPONSE CHARACTERIZATION
	10:30 - 11:00	91	Donato Chirulli	D. Chirulli, G. Governale, F. Vincelli, N. Viola, R. Fusaro, D. Ferretto	HUMAN LUNAR LANDER DESIGN AND COST ESTIMATION
	11:00 - 11:30	<i>Break</i>			
Session: Recent topics in aerospace research 2 Chairperson: N. VIOLA, Politecnico di Torino	11:30 - 12:00	33	Martina Membola	M. Membola, N. Viola, R. Demarchi, I. Sale	RNP/RNAV INTRODUCTION IN SINGLE PILOT (FIGHTER) A/C
	12:00 - 12:30	94	Fabio Magnacca	F. Magnacca, K. Abu Salem, V. Cipolla	ECONOMIC ASSESSMENT OF BOX-WING AIRCRAFT ARCHITECTURE: METHODOLOGY AND APPLICATION IN THE PARSIFAL PROJECT
	12:30 - 13:00	53	Antonio Esposito	A. Esposito, F. De Rosa, M. Viscardi	USING AN ICING FLOW FACILITY TO STUDY ELECTROTHERMAL ICING PROTECTION SYSTEMS
	13:00 - 14:30	<i>Break</i>			
Session: Recent topics in aerospace research 3 Chairperson: N. VIOLA, Politecnico di Torino	14:30 - 15:00	11	Leonardo Barilaro	L. Barilaro, L. Olivieri, R. Tiscio, A. Francesconi	DEVELOPMENT OF A SINGLE-STAGE LIGHT-GAS GUN FACILITY IN MALTA: A COOPERATIVE CONCEPTUAL EVALUATION
	15:00 - 15:30	119	Sandhya Santhosh	M.C. Moruzzi, S. Santhosh, F.a De Crescenzo, S. Bagassi	SPATIAL SOUND SYSTEM TO AID INTERACTIVITY IN A HUMAN CENTRED DESIGN EVALUATION OF AN AIRCRAFT CABIN ENVIRONMENT
	15:30 - 16:00	-	-	-	-

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1	Marco Petrolo	Politecnico di Torino	marco.petrolo@polito.it	ELASTOPLASTIC MICROMECHANICAL ANALYSIS OF FIBRE-REINFORCED COMPOSITES WITH DEFECTS
2	Huimin Zhang	Politecnico di Milano	huimin.zhang@polimi.it	IMPLICIT, UNCONDITIONALLY STABLE INTEGRATION SCHEMES FOR MULTIBODY SYSTEM DYNAMICS
3	Riccardo Vescovini	Politecnico di Milano	riccardo.vescovini@polimi.it	MESHLESS APPROACH FOR THE ANALYSIS OF VARIABLE STIFFNESS PANELS WITH ARBITRARY SHAPES
4	Alessandro Casaburo	Università degli Studi di Napoli "Federico II"	alessandro.casaburo@unina.it	A LINEAR TRANSFORMATION FOR THE RECONSTRUCTION OF THE RESPONSES BETWEEN SYSTEMS IN SIMILITUDE
5	Francesco Toffol	Politecnico di Milano	francesco.toffol@polimi.it	AERO-SERVO-ELASTIC OPTIMIZATION IN EARLY DESIGN PHASES
6	Cheng Angelo Yan	Politecnico di Milano	chengangelo.yan@polimi.it	ANALYSIS OF VARIABLE STIFFNESS STRUCTURES USING PHYSICS INFORMED NEURAL NETWORKS
7	Marco Pisano	Università degli Studi di Napoli "Federico II"	marco.pisano4@studenti.unina.it	DESIGN OF A TUNED VIBRATION ABSORBER (TVA) FOR APPLICATIONS IN TRANSPORT ENGINEERING
8	Alessia Pecoraro	Università degli Studi di Napoli "Federico II"	alepecoraro1604@gmail.com	PERIODICITY AND QUASI-PERIODICITY EFFECTS ON VIBRATION BAND GAPS: NUMERICAL INVESTIGATIONS ON ONE-DIMENSIONAL STRUCTURES
9	Laura De Leo	Università degli Studi di Roma "La Sapienza"	deleo.1736720@studenti.uniroma1.it	LOW-THRUST ORBIT DYNAMICS AND PERIODIC TRAJECTORIES IN THE EARTH-MOON SYSTEM
10	Roberto Del Prete	Università degli Studi di Napoli "Federico II"	robertodelprete88@gmail.com	AUTOMATIC SHIP RECOGNITION IN SAR IMAGES FOR MARITIME SURVEILLANCE USING DEEP-LEARNING
11	Leonardo Barilaro	The Malta College of Arts, Science & Technology (MCAST)	leonardo.barilaro@mcast.edu.mt	DEVELOPMENT OF A SINGLE-STAGE LIGHT-GAS GUN FACILITY IN MALTA: A COOPERATIVE CONCEPTUAL EVALUATION
12	Davide Ninni	Politecnico di Bari	davide.ninni@poliba.it	ANALYSIS OF SHOCK WAVE/BOUNDARY LAYER INTERACTION ON DOUBLE-WEDGE GEOMETRY
13	Alex De Bonis	Università degli Studi di Roma "La Sapienza"	alexdebonis9@gmail.com	MULTI-BODY MODELLING OF A DUAL-ARM SPACE FLEXIBLE MANIPULATOR SYSTEM FOR ACTIVE DEBRIS REMOVAL
14	Caterina Poggi	Università degli Studi Roma Tre	caterina.poggi@uniroma3.it	ARTIFICIAL NEURAL NETWORK SURROGATE MODELS FOR PROPELLER ARRAY NOISE RADIATION
15	Alessandro Del Buono	Università degli Studi Roma Tre	alessandro.delbuono@uniroma3.it	MULTISECTION APPROACH FOR THE VERTICAL WATER IMPACT OF A FUSELAGE
16	Ivan Napoli	Università degli Studi di Roma "La Sapienza"	napoli.1692855@studenti.uniroma1.it	DISCRETE-VARIABLE-THRUST GUIDANCE FOR ORBITAL RENDEZVOUS BASED ON FEEDBACK LINEARIZATION
17	Giuliano Guarino	Università degli Studi di Palermo	giuliano.guarino@unipa.it	A LAYER-WISE DISCONTINUOUS GALERKIN APPROACH FOR LAMINATED COMPOSITE SHELLS
18	Greta Ongaro	Università di Padova	greta.ongaro@phd.unipd.it	PERIDYNAMIC MODELLING AND EXPERIMENTAL VERIFICATION OF NANOCOMPOSITE PROPERTIES
19	Giuseppe D'Angelo	Leonardo S.p.A.	giuseppe.dangelo@leonardocompany.com	AUTOMATIC TAKE-OFF AND LANDING FOR ENABLING RPAS INSERTION IN NON-SEGREGATED AIRSPACES

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20	Flavio Dipietrangelo	Università del Salento	flavio.dipietrangelo@unisalento.it	MACHINE LEARNING APPLICATIONS FOR AEROSPACE STRUCTURES ASSESSMENTS
21	Francesco Bonelli	Politecnico di Bari	francesco.bonelli@poliba.it	THERMOCHEMICAL NON-EQUILIBRIUM AND HEAT TRANSFER IN A HYPERSONIC FLOW OVER A DOUBLE-CONE
22	Francesco Scabbia	Università di Padova	francesco.scabbia@phd.unipd.it	AN EFFECTIVE METHOD FOR IMPOSING PERIDYNAMIC BOUNDARY CONDITIONS AND MITIGATING THE SURFACE EFFECT
23	Mauro Pontani	Università degli Studi di Roma "La Sapienza"	mauro.pontani@uniroma1.it	EXPLICIT NEAR-OPTIMAL GUIDANCE AND PULSE-MODULATED CONTROL FOR LUNAR DESCENT AND TOUCHDOWN
24	Angela Volpe	Agenzia Spaziale Italiana	angela.volpe@asi.it	THE OLIMPO & LSPE/SWIPE MISSIONS : ADVANCEMENT IN THE PROJECTS
25	Angelo Lerro	Politecnico di Torino	angelo.lerro@polito.it	DEFINITION OF THE FLEXIBLE AIRCRAFT LONGITUDINAL MODEL FOR A PRELIMINARY CONTROL DESIGN
26	Giuseppe Migliozi	Leonardo S.p.A.	giuseppe.migliozi@leonardocompany.com	EUROPEAN MALE RPAS: FROM HIGH LEVEL KEY OPERATIONAL REQUIREMENT TO PRELIMINARY SYSTEM DESIGN
27	Giacomo Carlo Affilastro	Politecnico di Milano	giacomo.affilastro@mail.polimi.it	ESTIMATION OF THE ROTATIONAL DYNAMICS AND KINEMATICS OF A SPACE OBJECT USING RADAR MEASUREMENTS
28	Emanuele Resta	Politecnico di Torino	emanuele.resta@studenti.polito.it	APPLICATION OF SHOCK VECTOR CONTROL TO AN AXISYMMETRIC SUPERSONIC NOZZLE
29	Laura Pernigoni	Politecnico di Milano	laura.pernigoni@polimi.it	EXPERIMENTAL CHARACTERIZATION OF SELF-HEALING NANOCOMPOSITE AND MULTILAYER SAMPLES FOR SPACE APPLICATIONS
30	Federico Ghioldi	Politecnico di Milano	federico.ghioldi@polimi.it	A CFD METHODOLOGY FOR THE OPTIMAL THERMAL DESIGN OF THE PROPULSION SYSTEM IN ELECTRIC MOTORS
31	Davide Cavalieri	Università degli Studi di Roma "La Sapienza"	cavalieri.1602883@studenti.uniroma1.it	THEORETICAL AND NUMERICAL MODELLING OF MULTICOMPONENT TRANSCRITICAL DIFFUSES INTERFACES
32	Giulio Gori	Politecnico di Milano	giulio.gori@polimi.it	MULTI-FIDELITY SURROGATE MODELS IN AERODYNAMIC OPTIMIZATION PROBLEMS
33	Martina Membola	Politecnico di Torino	s277921@studenti.polito.it	RNP/RNAV INTRODUCTION IN SINGLE PILOT (FIGHTER) A/C
34	Calogero Orlando	Università degli Studi di Enna Kore	calogero.orlando@unikore.it	NUMERICAL INVESTIGATION OF THE ACTUATOR INFLUENCES ON THE NLG ADAPTIVE DAMPING SYSTEM
35	Arianna Remiddi	Università degli Studi di Roma "La Sapienza"	arianna.remiddi@uniroma1.it	A FLAMELET-BASED NUMERICAL FRAMEWORK FOR CONJUGATE HEAT TRANSFER IN LRE RELEVANT CONDITIONS
36	Danilo Forte	Politecnico di Milano	danilo.forte@mail.polimi.it	THE LUNAR NEARSIDE NAVIGATION SATELLITE SYSTEM
37	Marco Fiorio	Università di Pisa	marco.fiorio@dpi.unipi.it	OBJECT DETECTION AND TRACKING ALGORITHMS BASED ON KLT FEATURE TRACKER FOR A SENSE AND AVOID SYSTEM
38	Alex Zanotti	Politecnico di Milano	alex.zanotti@polimi.it	EXPERIMENTAL INVESTIGATION OF AERODYNAMIC INTERACTION OF SIDE-BY-SIDE PROPELLERS
39	Roberto Opromolla	Università degli Studi di Napoli "Federico II"	roberto.opromolla@unina.it	CHASER-ROBOTIC ARM COMBINED CONTROL AND OPTICAL RELATIVE NAVIGATION FOR SPACE TARGET CAPTURE
40	Riccardo Masiero	Politecnico di Milano	riccardo.masiero@polimi.it	ANALYSIS OF OPTIONS TO ENHANCE THE PERFORMANCE OF NEW SPACE ECONOMY DOWNSTREAM SERVICES

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42	Alessandro Paiella	Università degli Studi di Roma "La Sapienza"	alessandro.paiella@roma1.infn.it	KINETIC INDUCTANCE DETECTORS FOR BALLOON-BORNE CMB EXPERIMENTS
43	Lorenzo Olivieri	Università di Padova	lorenzo.olivieri@unipd.it	AN OVERVIEW OF RESEARCH ACTIVITIES AT UNIVERSITÀ OF PADOVA IN THE FIELD OF SATELLITE IMPACTS WITH SPACE DEBRIS
44	Guido Saccone	Centro Italiano Ricerche Aerospaziali (CIRA)	g.saccone@cira.it	CONCEPT DESIGN FOR MANUFACTURING OF NEW ADVANCED C/C COMPOSITES FOR AEROSPACE APPLICATIONS
45	Valeria Vercella	Politecnico di Torino	valeria.vercella@polito.it	LIFE CYCLE COST ESTIMATION FOR FUTURE REUSABLE ACCESS TO SPACE SYSTEMS
46	Ernesto Monaco	Università degli Studi di Napoli "Federico II"	ermonaco@unina.it	TRAINING OF DEEP NEURAL NETWORKS AIMED AT DAMAGE RECONSTRUCTION BY FEM SIMULATION OF WAVES PROPAGATION INTO COMPOSITES THIN SHELLS
47	Mario Panelli	Centro Italiano Ricerche Aerospaziali (CIRA)	m.panelli@cira.it	FLUID SIMULATION OF ELECTRON DISCHARGE IN HALL EFFECT THRUSTER
48	Vincenzo Romano	Università degli Studi di Napoli "Federico II"	vincenzo.romano25@studenti.unina.it	DEVELOPMENT OF AN ORIENTABLE INTENSITY PROBE FOR CURVED PANELS
49	Aniello Daniele Marano	Università degli Studi di Napoli "Federico II"	aniellodaniele.marano@unina.it	THEORETICAL AND PRACTICAL ASPECTS OF MULTI-INPUT MULTI-OUTPUT TESTING
50	Michele Grassi	Università degli Studi di Napoli "Federico II"	michele.grassi@unina.it	FORMATION FLYING SAR BASED ON CUBESAT ASSEMBLIES
51	Giuseppe Maurizio Gagliardi	Università degli Studi di Napoli "Federico II"	giusep.gagliardi@studenti.unina.it	CONCEPT, DEVELOPMENT AND TESTING OF AN EXPERIMENTAL DEVICE FOR WHIRL FLUTTER RESEARCH
52	Nicola Russo	Università degli Studi di Napoli "Federico II"	nicola.russo22@studenti.unina.it	EXPERIMENTAL PERFORMANCES EVALUATION ON COUNTER-ROTATING COAXIAL PROPELLERS FOR MULTIROTORS
53	Antonio Esposito	Università degli Studi di Napoli "Federico II"	antespos@unina.it	USING AN ICING FLOW FACILITY TO STUDY ELECTROTHERMAL ICING PROTECTION SYSTEMS
54	Andrea Delfini	Università degli Studi di Roma "La Sapienza"	andrea.delfini@uniroma1.it	SYNERGISTIC EFFECTS OF ATOMIC OXYGEN AND UV RADIATION ON CARBON/CARBON PLATES AT DIFFERENT ATTITUDE POSITIONS
55	Karim Abu Salem	Università di Pisa	karim.abusalem@gmail.com	PERFORMANCE ANALYSIS OF A SHORT-MEDIUM HAUL BOX-WING AIRCRAFT AND COMPARISON WITH CONVENTIONAL AIRCRAFT
56	Jacopo Guadagnini	Deimos Space SLU	jacopo.guadagnini@deimos-space.com	ENTRY CORRIDOR ANALYSIS FOR VERTICAL LANDING REUSABLE LAUNCH VEHICLES
57	Mario Panelli	Centro Italiano Ricerche Aerospaziali (CIRA)	m.panelli@cira.it	PARTICLE-IN-CELL SIMULATION OF HEAVY SPECIES IN HALL EFFECT THRUSTER DISCHARGE
58	Riccardo Gemma	Leonardo S.p.A.	riccardo.gemma@leonardocompany.com	AN AI APPLICATION TO INVESTIGATE "INVERSE" REYNOLDS NUMBER EFFECT
59	Massimiliano Piccirillo	Leonardo S.p.A.	massimiliano.piccirillo@leonardocompany.com	MAPS AND HAPS: A CHALLENGE OF SUSTAINABILITY FOR A NEW CLASS OF AUTONOMOUS UNMANNED AIRCRAFT SYSTEMS
60	Aleksander Suti	Università di Pisa	aleksander.suti@dice.unipi.it	HYBRID THERMO-ELECTRIC PROPULSION SYSTEM FOR CLIMBING PERFORMANCE ENHANCEMENT OF LIGHTWEIGHT FIXED-WING UAVS

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62	Andrea De Vittori	Politecnico di Milano	andrea.devittori@polimi.it	SPACE OBJECTS TUMBLING MOTION RECONSTRUCTION FROM LIGHT CURVES ANALYSIS WITH MACHINE LEARNING TECHNIQUES
63	Antonio Colanera	Università degli Studi di Napoli "Federico II"	antonio.colanera@unina.it	POD AND SPOD ANALYSIS OF VERTICAL LIQUID SHEET
64	Andrea Conte	Università degli Studi di Napoli "Federico II"	conte.andrea1996@gmail.com	NUMERICAL INVESTIGATION OF PSJ ACTUATORS IN QUIESCENT CONDITIONS
65	Marco Prodan	Politecnico di Torino	s269227@studenti.polito.it	DESIGN AND BUILDING A 1:8 SCALE REPLICA OF THE SIAI-MARCHETTI S55X
66	Marco Grifo	Università degli Studi di Palermo	marco.grifo01@unipa.it	HIGH-FIDELITY AEROELASTIC FRAMEWORK WITH ADVANCED STRUCTURAL MODELS
67	Christopher Glaser	ONERA	christopher.glaser@onera.fr	REVIEW OF REGRESSION RATE ENHANCEMENT TECHNIQUES FOR HYBRID ROCKET ENGINES
68	Manuel Carreño Ruiz	Politecnico di Torino	manuel.carreno@polito.it	VALIDATION AND APPLICATION OF AERODYNAMIC SIMULATIONS IN THE MARTIAN ATMOSPHERE
69	Carlo De Michele	Università degli Studi di Napoli "Federico II"	carlo.demichale2@unina.it	AN EFFICIENT ALGORITHM FOR THE NUMERICAL INTEGRATION OF THE INCOMPRESSIBLE NAVIER-STOKES EQUATIONS FOR TURBULENT FLOWS
70	Luigi Falanga	Università degli Studi di Napoli "Federico II"	luigi.falanga2@studenti.unina.it	A MICROSATELLITE MISSION TO A LONG-PERIOD COMET IN A HELIOCENTRIC INNER ORBIT
71	Alessandro Iarocci	Istituto Nazionale di Geofisica e Vulcanologia	alessandro.iarocci@ingv.it	HERMES: HEMERA RETURNING MESSENGER
72	Vincenzo Porrino	Università degli Studi di Napoli "Federico II"	v.porrino@studenti.unina.it	SCORE: A SCIENTIFIC MISSION FOR THE EXPLORATION OF A LONG PERIOD COMET WITH MICRO/NANO SATELLITES
73	Ettore Saetta	Università degli Studi di Napoli "Federico II"	ettore.saetta@unina.it	AERODYNAMIC FORCE BREAKDOWN: STATE OF ART OF THE FAR FIELD METHODS
74	Riccardo Gelain	Université Libre de Bruxelles	riccardo.gelain@ulb.be	INVESTIGATION OF ADDITIVE MANUFACTURING TECHNIQUES FOR PARAFFIN-BASED FUEL GRAINS
75	Alberto Milazzo	Università degli Studi di Palermo	alberto.milazzo@unipa.it	A STUDY ON VARIABLE STIFFNESS COMPOSITE LAMINATES UNDERGOING LOW VELOCITY IMPACTS
76	Valentina Fanfani	Università di Milano-Bicocca	v.fanfani@campus.unimib.it	THE BLAST OBSERVATORY
77	Federico Nati	Università di Milano-Bicocca	federico.nati@unimib.it	AN ARCSECOND-ACCURATE ATTITUDE DETERMINATION AND CONTROL SYSTEM FOR A MULTI-PURPOSE BALLOON GONDOLA
78	Jamal Najd	Politecnico di Torino	jamal.najd@polito.it	A VARIABLE KINEMATIC MODEL FOR THE PREDICTION OF CAPACITANCE VARIATIONS IN EMBEDDED PZT SENSORS
79	Pierangelo Masarati	Politecnico di Milano	pierangelo.masarati@polimi.it	PARTICLE DAMPER SIMULATION TOOLS
80	Federica Angeletti	Università degli Studi di Roma "La Sapienza"	federica.angeletti@uniroma1.it	A DEEP REINFORCEMENT LEARNING APPROACH TO AUTONOMOUS SPACECRAFT DOCKING

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82	Fabrizio Stesina	Politecnico di Torino	fabrizio.stesina@polito.it	6U AND 12U CUBESAT TEST PLATFORMS FOR THE VERIFICATION OF MINIATURIZED ELECTRIC PROPULSION SYSTEMS
83	Caterina Speranza	Politecnico di Torino	s266153@studenti.polito.it	CONTROL OF THE MANOEUVRES FOR DOCKING BETWEEN CUBESATS
84	Paolo Iannelli	Università degli Studi di Roma "La Sapienza"	paolo.iannelli@uniroma1.it	COMBINED ATTITUDE AND VIBRATION CONTROL FOR FLEXIBLE SPACECRAFT BASED ON MODEL PREDICTIVE CONTROL
85	Vincenzo Binante	SkyBox Engineering Srl	v.binante@skyboxeng.com	ADOPTION OF A DOE-BASED APPROACH FOR THE IMPLEMENTATION OF STRUCTURAL SURROGATE MODELS IN THE PRELIMINARY DESIGN OF A REGIONAL BOX-WING AIRCRAFT
86	Davide Zanetti	SkyBox Engineering Srl	d.zanetti@skyboxeng.com	METHODOLOGY FOR THE CONCEPTUAL DESIGN OF CONVENTIONAL AND BOX-WING AIRCRAFT WITH HYBRID-ELECTRIC PROPULSION
87	Federico Bovecchi	Università di Pisa	federico.bovecchi@phd.unipi.it	NUMERICAL SIMULATION OF FATIGUE CRACK GROWTH IN AN OPEN-HOLE SPECIMEN
88	Barbara Re	Politecnico di Milano	barbara.re@polimi.it	AN ALE INTERPOLATION-FREE STRATEGY FOR UNSTEADY FLOW SIMULATIONS USING FINITE VOLUME AND RESIDUAL DISTRIBUTION SCHEMES OVER ADAPTIVE GRIDS
89	Davide Marchesoli	Politecnico di Milano	davide.marchesoli@polimi.it	THE ROLE OF THE SHORT-RANGE STIFFNESS IN PILOT BIODYNAMIC RESPONSE CHARACTERIZATION
90	Alice De Oliveira	Politecnico di Milano	alice.deoliveira@polimi.it	REUSABLE LAUNCH VEHICLES RE-ENTRY: PRELIMINARY ARCHITECTURE TOWARDS OPTIMAL GUIDANCE AND CONTROL
91	Donato Chirulli	Politecnico di Torino	s251416@studenti.polito.it	HUMAN LUNAR LANDER DESIGN AND COST ESTIMATION
92	Giuseppe Narducci	Politecnico di Torino	giuseppe.narducci@polito.it	MICROLAUNCHERS DESIGN AND COST ESTIMATION
93	Giuseppe Indelicato	Università degli Studi di Roma "La Sapienza"	giuseppe.indelicato@uniroma1.it	TOWARDS HIGH-FIDELITY NUMERICAL SIMULATIONS OF INJECTORS NEAR-FIELD IN LRE COMBUSTION CHAMBERS
94	Fabio Magnacca	Università di Pisa	fabio.magnacca@ec.unipi.it	ECONOMIC ASSESSMENT OF BOX-WING AIRCRAFT ARCHITECTURE: METHODOLOGY AND APPLICATION IN THE PARSIFAL PROJECT
95	Giuseppe Scarlatella	Technische Universität Dresden	giuseppe.scarlatella@tu-dresden.de	COLD-FLOW TESTS ON ADVANCED NOZZLE CONCEPTS IN SUBSONIC RETRO-FLOWS: DEVELOPMENT OF TEST-BENCH
96	Federico Toson	Università di Padova	federico.toson@studenti.unipd.it	AVERLA: AUTONOMOUS DRONE FOR AVALANCHE RESCUE
97	Luigi Ansalone	Agenzia Spaziale Italiana	luigi.ansalone@asi.it	CHALLENGES OF THE EXPERIMENTAL TOOLS FOR THE ASI PRISMA MISSION: THE PREFEASIBILITY ANALYZER AND THE BACKGROUND MISSION OPTIMIZER
98	Edoardo Del Vecchio	Università degli Studi di Roma "La Sapienza"	delvecchio.1651153@studenti.uniroma1.it	PATH PLANNING AND STEREO VISION-BASED MAP UPDATE FOR NASA'S MARS 2020 PERSEVERANCE ROVER
99	Oscar Gori	Politecnico di Torino	oscar.gori@polito.it	STRATEGIES FOR PRELIMINARY RE-DESIGN OF A LH2 MACH 5 CRUISER CONCEPT ORIGINALLY CONCEIVED FOR MACH 8 MISSION
100	Andrea Vennitti	Politecnico di Torino	andrea.vennitti@tu-dresden.de	INTRODUCTION TO SENSOR INVESTIGATION FOR RLVS HEALTH MONITORING SYSTEM
101	Federico Valpiani	Politecnico di Torino	s242766@studenti.polito.it	EARLY NUMERICAL EVALUATION OF FLUID-STRUCTURE INTERACTION OF A SIMPLY WEDGE GEOMETRY WITH DIFFERENT DEADRISE ANGLE

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103	Fabrizio Ricci	Università degli Studi di Napoli "Federico II"	fabricci@unina.it	STATIC BEHAVIOR OF A STIFFENED COMPOSITE PANEL WITH A DISBONDED STRINGER
104	Pietro Aceti	Politecnico di Milano	pietro.aceti@polimi.it	EFFECT OF HYGROTHERMAL AGEING ON OPTICAL FIBER-SENSORIZED COMPOSITE MATERIALS
105	Fabio Frassetto	Consiglio Nazionale delle Ricerche (CNR-IFN, Padova)	fabio.frassetto@pd.ifn.cnr.it	LOW NOISE FOURIER TRANSFORM SPECTROMETER FOR A BALLOON BORNE PLATFORM
106	Livia Ordonez Valles	Hochschule Bremen	Livia.Ordonjez-Valles@hs-bremen.de	GREEN PROPELLANTS AND ELECTRIC PUMP FEEDING SYSTEM: CHALLENGES AND OPPORTUNITIES OF USING THESE TECHNOLOGIES FOR FUTURE KICK STAGES
	Lily Blondel Canepari	Università di Pisa	lily.blondel@ing.unipi.it	
107	Lucía Ayala Fernández	Technische Universität Braunschweig	l.ayala-fernandez@tu-braunschweig.de	ANALYSIS OF SPACE LAUNCH VEHICLE FAILURES
108	Simone Sandon	Università di Padova	simone.sandon@studenti.unipd.it	O-ZONE: COMPACT DEVICE FOR STRATOSPHERIC DYNAMIC AIR SAMPLING
109	Francesco Latorre	Università degli Studi di Roma "La Sapienza"	latorre.1597476@studenti.uniroma1.it	AUTONOMOUS CRATER DETECTION ON ASTEROIDS USING A FULLY-CONVOLUTIONAL NEURAL NETWORK
110	Vincenzo Della Corte	INAF-IAPS	vincenzo.dellacorte@inaf.it	DUSTER: COLLECTION AND LABORATORY ANALYSIS OF STRATOSPHERIC DUST IN THE FRAME OF HEMERA H2020 PROJECT
111	Bruno Di Giandomenico	Leonardo S.p.A.	bruno.digiandomenico@leonardocompany.com	MBSE IN A CONTINUOUS DEVELOPMENT / INTEGRATION ENVIRONMENT – LAD EXPERIENCES
112	Fabio Biondani	Politecnico di Milano	fabio.biondani@polimi.it	PARTICLE DAMPER NUMERICAL-EXPERIMENTAL CORRELATION
113	Massimo Viscardi	Università degli Studi di Napoli "Federico II"	massimo.viscardi@unina.it	DESIGN OF A VLA VERTICAL CONTROL SURFACE WITH LRTM TECHNOLOGY
114	Stefano Bortolotti	Politecnico di Milano	stefano2.bortolotti@mail.polimi.it	A FULLY AUTOMATED OPTIMISATION PROCEDURE FOR MULTI-AIRFOIL CONFIGURATIONS BASED ON CFD
115	Beatrice Latini	Università degli Studi di Roma "La Sapienza"	beatrice.latini@uniroma1.it	HEAT TRANSFER PREDICTIONS IN ROUGH COOLING CHANNELS FOR LIQUID ROCKET ENGINES
116	Raffaele Ievolella	Università degli Studi di Napoli "Federico II"	raffaelei@hotmail.it	MAGNESIUM ALLOY MODELLING AND VALIDATION FOR FINITE ELEMENT ANALYSIS
117	Marta Albano	Agenzia Spaziale Italiana	marta.albano@asi.it	HEMERA: THE EUROPEAN INTERNATIONAL STRATOSPHERIC BALLOONS RESEARCH INFRASTRUCTURE
118	Fabio Curti	Università degli Studi di Roma "La Sapienza"	fabio.curti@uniroma1.it	GYROLESS ANGULAR RATE DETERMINATION BASED ON STAR SENSOR IMAGES
119	Sandhya Santhosh	Università di Bologna	sandhya.santhosh2@unibo.it	SPATIAL SOUND SYSTEM TO AID INTERACTIVITY IN A HUMAN CENTRED DESIGN EVALUATION OF AN AIRCRAFT CABIN ENVIRONMENT
120	Marzia Corsi	Università di Bologna	marzia.corsi2@unibo.it	DIMENSIONAL ACCURACY ANALYSIS OF ADDITIVELY MANUFACTURED PARTS
121	Martino Carlo Moruzzi	Università di Bologna	martinocarlo.moruzz2@unibo.it	DESIGN OF ADDITIVELY MANUFACTURED METAMATERIAL FOR CABIN NOISE AND VIBRATIONS REDUCTION

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122	Giuseppe Palaia	Università di Pisa	giuseppe.palaia@phd.unipi.it	PRELIMINARY COMPARISON OF BOX-WING AND TUBE-AND-WING HYBRID-ELECTRIC REGIONAL AIRCRAFT
123	Enrico Zappino	Politecnico di Torino	enrico.zappino@polito.it	A REFINED MODELS FOR THE PREDICTION OF PROCESS-INDUCED DEFORMATIONS OF COMPOSITE STRUCTURES
124	Alessia Gloder	Technische Universität Dresden	alessia.gloder@tu-dresden.de	ADVANCING SPACE ACCESS CAPABILITIES FOR AND BY EARLY STAGE RESEARCHERS
125	Fabio Curti	Università degli Studi di Roma "La Sapienza"	fabio.curti@uniroma1.it	AUGMENTED GYRO-STELLAR MODEL IN THE PRESENCE OF MEASUREMENTS DELAY
126	Fabio Curti	Università degli Studi di Roma "La Sapienza"	fabio.curti@uniroma1.it	STAR SENSOR IMAGE ON-BOARD PROCESSING FOR ORBITING OBJECTS DETECTION-SPOT
127	Inigo Alforja Ruiz	Politecnico di Milano	inigo.alforja@polimi.it	GUIDANCE, NAVIGATION AND CONTROL SYSTEM DESIGN FOR MULTI-PAYLOAD AND MULTI-ORBIT INJECTION
128	Marco Fiorio	Università di Pisa	marco.fiorio@dice.unipi.it	SENSE AND AVOID SYSTEM FOR A MINI UAV BASED ON DATA FUSION BETWEEN ELECTRO-OPTICAL AND RADAR SENSORS
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130	Fabrizio Cuomo	Leonardo S.p.A.	fabrizio.cuomo@leonardocompany.com	LEONARDO AIRCRAFT DIVISION – ELECTRIFICATION FRAMEWORK VISION – ENABLING TECHNOLOGIES AND AIRCRAFT APPLICATION
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133	Rodolfo Azzara	Politecnico di Torino	rodolfo.azzara@polito.it	NUMERICAL NONLINEAR VIBRATION-BUCKLING INVESTIGATION OF VARIABLE STIFFNESS COMPOSITE PLATE AND SHELL STRUCTURES
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137	Alberto Racionero Sanchez-Majano	Politecnico di Torino	alberto.racionero@polito.it	STRESS ANALYSIS OF VARIABLE ANGLE TOW SHELLS BY HIGH-ORDER UNIFIED FINITE ELEMENTS
138	Cristina Colaïanni	Arianespace	c.colaianni@arianespace.com	ARIANE 6 AND VEGA-C THE UPCOMING EUROPEAN LAUNCHERS ON THE MARKET
139	Marco Enea	Politecnico di Torino	marco.enea@polito.it	ONE-DIMENSIONAL HIGH ORDER FINITE ELEMENTS EMBEDDING 3D STATE-BASED PERIDYNAMIC SUBDOMAINS
140	Matteo Filippi	Politecnico di Torino	matteo.filippi@polito.it	STRUCTURAL THEORIES FOR RANDOM RESPONSE OF AEROSPACE STRUCTURES UNDER STOCHASTIC LOADS

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143	Andrea Delfini	Università degli Studi di Roma "La Sapienza"	andrea.delfini@uniroma1.it	THE STRAINS STRATOSPHERIC EXPERIMENT: RADIO-FREQUENCY TRACKING SYSTEMS FOR STRATOSPHERIC AND SUBORBITAL MISSIONS
144	Francesco Schettini	Sky Eye Systems Srl	f.schettini@skyeyesystems.it	A SAFETY-ORIENTED DESIGN FOR LIGHTWEIGHT REMOTED PILOT AIRCRAFT SYSTEMS WITH HIGH PERFORMANCE
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149	Silvano Fineschi	INAF/Osservatorio Astrofisico di Torino	silvano.fineschi@inaf.it	THE CORONAL MAGNETOGRAPH – CORMAG – MISSION FOR THE STRATOSPHERIC HEMERA MISSION
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