

TUESDAY 8 OCTOBER 2019													
12.00 LUNCH													
	Session/Room A	Session/Room B	Session/Room C	Session/Room D	Session/Room E	Session/Room F	Session/Room G	Session/Room H	Session/Room I	Session/Room J	Session/Room K	Session/Room L	Session/Room M
13.00	Major cooperative projects	Environmentally friendly technology	Structures	Materials	Processes	Aircraft and spacecraft system analysis	Aircraft and spacecraft system analysis	Structures, materials and processes	Sub-system and system analysis	Sub-system and system analysis	Engines	Aircraft and spacecraft technology	Operational availability, maintenance and support
	<i>Synergies between aeronautics and aerospace.</i>		<i>Structures Loads</i>	<i>Materials Additive Manufacturing</i>	<i>Processes Automation</i>			<i>Composites</i>				<i>Experimental</i>	<i>Optimal planning for maintenance and production</i>
	A1 Reserved for Brazilian R&D minister	B1 39496 Split system dilemma - growth and noise in aviation (Pernilla Ulfvengren, KTH)	C1 38200 Wind Tunnel Test with Pressure Sensitive Paint (PSP) in the aircraft structural load definition (Oscar Wallentin, Saab AB)	D1 38028 Heat affected zone cracking in different heat treated conditions of selective laser melted Alloy 718 subjected to gas tungsten arc welding (Tahira Raza, HV)	E1 38231 Automated Sealing of Airframes (Jesper Birberg, Saab AB)	F1 38169 Establishing interoperability in aircraft system simulator development (Robert Hällqvist, Saab AB)	G1 38547 A Requirements Engineering-based Approach for Defining a System Modification Process during Aircraft Operation (Washington Resende, ITA)	H1 37788 Post-Buckling analysis in thin-web laminated composite beams (Bruna Luiza Noll, Federal University of Minas Gerais)	I1 39584 Space Environment Qualification as a Service – Commencing a new era of the New Space Industry (Emil Vinterhav, PASQ AB)	J1 38621 Automatic Deployment and Optimisation of Integrated Modular Avionics Systems (Mohammad Radaei, School of Aerospace)	K1 38422 Heat Transfer Measurements with Methane in Rocket Nozzle Cooling Channels (Jens Fridh, KTH)	L1 38111 Studies of a Pitch-Moment CHUTE for the GRIPEN 39 E/F (Krister Fersan, Saab AB)	M1 37972 Phase out maintenance optimization (Olle Wijk, Systecon AB)
	A2 39044 Competitive development of aerospace products – surveying aeronautical and astronautical expectations (Ola Isaksson, Chalmers )	B2 39510 Global Watch Center – monitoring Earth’s health for the benefit of all (Tobias Roos, SSC)	C2 38837 Active and passive Load alleviation design possibilities and considerations on a fighter A/C (Bengt Mexnell, Saab AB)	D2 38719 Microstructural characterization of chessboard pattern in selective laser melted Ti-6Al-4V (Magnus Neikter, LTU)	E2 38247 Data based automated manufacturing control of fabricated components (Hugo Hultman, GKN/Chalmers)	F2 38815 Real-time Co-/Sub-Simulation of Aircraft Subsystems in a Flight Simulator Environment (Owais Shahid, LIU)	G2 38746 Modeling and identification of a UAV with a flexible wing (Luis Góes, ITA)	H2 38426 Failure induced by instability in structural composites under longitudinal compression (Alfredo Faria, ITA)	I2 38411 GPS denied navigation for airborne vehicles (Fredrik Andersson, Saab AB/LIU)	J2 38633 Experiences from Applying an Ontology in Hazard Analysis of Autonomous System of Systems (Malina Adach, Mälardalen University)	K2 38786 Intentional mistuning effects on the forced response of a compressor blisk (Mauricio Gutierrez Salas, KTH)	L2 38471 Experimental and Theoretical Assessment of Aerodynamic and Stability Derivatives of a Subscale Aircraft (Igor Soares, ITA)	M2 38042 Mathematical optimization of a tactical resource allocation problem for efficient capacity utilization of machining resources in aerospace component manufacturing (Sunney Fotedar, Chalmers)
	A3 Interactive session (see A2)	B3 38316 Automation for Separation with CDOs: Dynamic Aircraft Arrival Routes (Valentin Polishchuk, LIU)	C3 38838 Load registration system on the multi-roll A/C Gripen – in the past, now and future possibilities (Lars Östling, Saab AB)	D3 39589 Heat Treatment of AM parts by Hot Isostatic Pressing (Anders Eklund, Quintus AB)	E3 38546 Airframe sealing automation using Snake-robot (Luis Gonzaga Trabasso, ITA)	F3 38835 Assessment of Pilot-Aircraft Interface as a Conceptual Design Tool (Emilia Villani, ITA)	G3 39596 Reexamining linear causal inferences using safety and reliability metrics (Matthew Stogsdill, KTH)	H3 38470 Factors affecting static failure of bolted joints in hybrid composite-aluminium aircraft structure (Hannes Wemming, Saab AB)	I3 38996 Detection of Camouflaged Vehicles for VHF-band SAR Based on Regression Models (Renato Machado, ITA)	J3 38841 Assurance Strategy for New Computing Platforms in Safety-Critical Avionics (Håkan Forsberg, Mälardalen University)	K3 38898 Experimental aero- and thermal investigation for a next generation engine exit module (Isak Jonsson, Chalmers)	L3 38974 Numerical and experimental investigations of laminar-turbulent transition over an airfoil (Pierluigi Morra, KTH/Linné FLOW Centre)	M3 38818 AeroLogLabTOOL, the development of a collaborative integrated Logistic Support Tool (Fernando Teixeira Mendes Abrahão, ITA)
14.30	COFFEE												
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15.00-	Major cooperative projects	Environmentally friendly technology	Structures	Materials	Processes	Aircraft and spacecraft system analysis	Aircraft and spacecraft system analysis	Aircraft and spacecraft system analysis	Sub-system and system analysis	Sub-system and system analysis	Aircraft and spacecraft technology	Aircraft and spacecraft technology	Misc
			<i>Structural Testing</i>	<i>Materials Composites</i>	<i>Processes Additive Manufacturing</i>								
	A4 38571 T-X, Saab and Boeing cooperation on the new Advanced Pilot Training System (Tomas Karlsson, Saab AB)	B4 37562 Aerodynamic Performance of Natural Laminar Flow Airfoils Applied to Low- and High-Speed Wings (Ramon Lopez Pereira, Universidad Europea de Madrid)	C4 38177 Verification and validation of calculated structural loads with flight test (Mats Wallin, Saab AB)	D4 38198 A comparative study on aging of high temperature polymer composites reinforced by carbon fibre thin-ply and satin weaves (Patrik Fernberg, LTU)	E4 38436 Modelling of pore formation and retention in additive manufacturing of Ti-6Al-4V (Andreas Lundback, LTU)	F4 38481 Conceptual design of a fifth generation Unmanned Combat Air Vehicle in a collaborative framework (Pedro Bravo-Mosquera, University of Sao Paulo)	G4 37664 Optimization Under Uncertainty Enhancing Decision-Making in Aircraft Conceptual Design (Davi Henrique Bossano Di Bianchi, Embraer/ITA)	H4 38493 Multi-Agent Multi-Objective Deep Reinforcement Learning for Efficient and Effective Pilot Training (Johan Källström, Saab AB/LIU)	I4 39017 Operator tracking for fighter pilots: review of sensing technologies for flexible cockpit automation (Magnus Bång, LIU)	J4 38583 Triple Modular Redundancy based on Runtime Reconfiguration and Formal Models of Computation (Denis Loubach, ITA)	K4 38573 NFFP7 - Industrialization of improved predictions of complex aeronautical flows (Sebastian Arvidson, Saab AB/Chalmers)	L4 38830 Passive and Active Countermeasure Aerodynamics (Magnus Tormalm, FOI)	M4 38560 Development of Design Supports for Functionally Integrated Aero-Engine Structures (Visakha Raja, GKN/Chalmers)
	A5 38774 Swedish-Brazilian Cooperation in Aeronautics in Santa Catarina State, Brazil (Victor J. De Negri, Federal University of Santa Catarina)	B5 38278 Transition in a swept-boundary layer subject to surface roughness and free-stream turbulence (Luca De Vincentiis, KTH)	C5 38375 Structural component testing of Gripen E/F (Martin Ekström, Saab AB)	D5 39486 Development of Three-dimensionally Heat Conducting Carbon Composites (Nandan Khokar, Fureho AB)	E5 38484 Experimental validation of a Phased Array Model applied in Ultrasonic Inspection of AM Parts (Xiangyu Lei, Chalmers)	F5 38483 Conceptual Design and Analysis of a Swept Half-Span Wing of a Supersonic Tactical Bomber Aircraft (Felipe Castro Baraky, University of Sao Paulo)	G5 38186 Design and Integration of a Low Observable Engine Intake and Outlet for the MULDICON Platform (Henrik Edefur, FOI)	H5 38800 Loss of Control in Flight: the accident characterized under quantitative and operational optics (João Paulo Macedo, University of São Paulo)	I5 39056 A gesture-based interface for flight controls. (Manuel Alejandro Rodriguez Diaz, ITA)	J5 38606 Lempel-Ziv–Markov Chain Algorithm Modeling using Models of Computation and ForSyDe (Augusto Horita, UNICAMP)	K5 38589 CFD as a tool for verification of intake/engine compatibility (Timea Kekesi, Saab AB)	L5 38984 Modeling, Simulation and Control of an aircraft with morphing wing (Carlos Souza, Universidade Federal de Santa Maria)	M5 39493 Operational Risk: Implementing Open Norms (Pernilla Ulfvengren, KTH)
	A6 38727 Airborne Advanced Vision and Awareness functions developed and demonstrated in the framework of Clean Sky 2 (Amanda Peattie, Saab AB)	B6 38594 High-Fidelity simulations of the Unsteady Response of a Natural Laminar Flow Airfoil (Prabal Negi, KTH)	C6 38377 Full Scale Structural testing of Gripen E/F (Christina Altkvist; Martin Ekström Saab AB)	D6 38575 Reliable strength assessments of aeroengine components made from textile composites (Leif E. Asp, Chalmers)	E6 38194 Additive manufacture at industrial, aeronautical and defense area: How to control the production of a good and some questions related copyright, intellectual property, performance at an embargo scenario. (Juan Pascual, SaveInProcess©)	F6 38828 Aerodynamics and aircraft conceptual design optimization based on a surrogate model algorithm (Nelson J. Diaz G. UNIFEI)	G6 38229 Flying TeD, a flying technology demonstrator for the future! (Roger Larsson, Saab AB)	H6 38978 HUMAER: A Test-Bed Environment for Human Factors Investigations in the Aeronautic Domain (Oliveira Wesley Rodrigues, ITA)	I6 38579 A Human Factors Approach to Self-Explanatory Automation for Fighter Aircraft (Johan Bergsten, Saab AB)	J6 38844 Onboard Cyber-Physical Systems Ontology (Denis Loubach, ITA)	K6 38914 Turbulence control on a NACA4412 wing section assessed through high-fidelity simulations (Fermin Mallor, Linné FLOW Centre/KTH)	L6 39054 Detailed Analysis of Separated Flow in Space Nozzles During Startup (Niklas Andersson, Chalmers)	M6 38728 Method for the Implementation of Industry 4.0: Aircraft final assembly domain (Alexandre Leite Junior ITA)
	A7 38581 Enabling Remotely Piloted Aircraft System (RPAS) Traffic Insertion by Automatic Contingency and Emergency Management in case of Command and Control Data Link Loss (Tina Erlandsson, Saab AB)	B7 38052 Computational Aerodynamics and Aeroacoustics of Highly-Heated Rectangular Supersonic Jets (Mihai Mihaescu, Linné FLOW Centre)	C7 38829 Bird Strike Testing of the Saab JAS 39 Gripen E (Peter Årebo, Saab AB/Etteplan)	D7	E7 38961 Radical Innovation and Qualification using Additive Manufacturing in Space Applications (Christo Dordlova, LTU)	F7 40016 Equations of State in Modelling Fighter Aircraft Oleo-Pneumatic Shock Absorber (Arttu Heininen Tampere University)	G7 38710 An open-source application for subscale flight test analytics and system identification (Alejandro Sobron, LIU)	H7 38959 Fidelity-adjusted modelling and simulation within conceptual design for Search & Rescue applications (Ingo Staack, LIU)	I7 38965 Human decision-making model for a single pilot operation (Luis Gonzaga Trabasso, ITA)	J7 38911 Considerations on Domain-Specific Architectures Applicability in Future Avionics Systems (Denis Loubach, ITA)	K7 38967 Unsteady aerodynamics modeling and simulation of a forward-swept-wing sailplane (Wilcker Schinestzki, Federal University of Santa Maria)	L7 38025 Aero-Structural Optimization of a MALE Configuration using the AGILE MDO Framework (Mengmeng Zhang, Airinnova AB)	M7

WEDNESDAY 9 OCTOBER													
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08.30	Major cooperative projects	Environmentally friendly technology	Structures	Materials	Processes	Aircraft and spacecraft system analysis	Aircraft and spacecraft system analysis	Major cooperative projects	Sub-system and system analysis	Sub-system and system analysis	Engines	Operational availability, maintenance and support	
			Structural Dynamics	Materials, Welding and Forming	Processes, Welding and Machining		System of Systems				Design	Decision support, Maintenance and operations	
A8	Invited keynote lecture Simon Weeks, ATI, Technology for a sustainable future for aerospace	B8 38991 Small Aircraft Revolution (Niklas Anderberg, Blackwing Sweden AB)	C8 37554 FE-model update concerning dynamic properties after GVT of a Gripen E test aircraft (Erik Holmberg, Saab AB)	D8 38032 Modeling and Simulation of Heat-Affected Zone Liquefaction Cracking in Alloy 718 (Joar Draxler, LTU)	E8 37745 Methods for simulation of residual stresses in hydroformed and welded vanes to airplane engines (Mats Werke, RISE IVF)	F8 38910 Single Model for Subsonic, Transonic and Supersonic Aerodynamics for Flight Simulation (Petter Krus, LIU)	G8 38698 Ontological Approach to System of Systems Engineering in Product Development (Ludvig Franzén, LIU)	H8 38634 A tested for space system testing in northern Sweden (Olle Norberg, LTU)	I8 39083 Aerospace electric generator specification and selection – opportunities and challenges (Avo Reinap, Lund University)	J8 38882 A discrete optimisation approach to scheduling of an integrated modular avionic system (Emil Karlsson, LIU/Saab AB)	K8 38372 Design for Fabrication of Turbofan Engine Structures (Julia Madrid, Chalmers)	L8 38482 Prescriptive Maintenance: Building Alternative Plans for Smart Operations (Henrique Marques, ITA)	
A9	38376 GKN Aerospace involvement the Clean Sky-2 engine demonstrators (Fredrik Wallin, GKN)	B9 38359 Flight Tests of Fuel Saving Formation Flight in General Aviation (Tomas Melin, Svenska Flygtekniska Institutet)	C9 38192 Modal analysis of a bi-dimensional tensegrity structure subject to large deformations (Paulo Kurka, UNICAMP)	D9 38558 Weld-Cracking in a Cast Ni-based Superalloy (Sukhdeep Singh, Chalmers)	E9 38007 Machining distortion analysis of aerospace components using the Contour method (Mats Werke, RISE IVF)	F9 39583 Zero Gravity on Parabolic Flights in Sweden (Sytze Veldman, V-kvadrat AB)	G9 39005 System-of-System Engineering, Overview of research activities within the NFFP cluster Overall Design and System Integration (Christopher Jouannet, Saab AB)	H9 38955 Academia and Industry Collaboration as a Driver for Competitiveness: the Case of the Graduate School of Space Technology (Anna Öhrwall Rönnbäck, LTU)	I9 38259 Additive Manufacturing in Airborne Sensor System (Martin Blennius, Saab AB)	J9 38047 Configurable PCB-Platform for Flash SoC FPGA (Pablo Viana, Federal University of Alagoas)	K9 38856 Virtual demonstrator platform for future propulsion technology (Tomas Grönstedt, Chalmers)	L9 38957 Enterprise Modeling for Dynamic Matching of Tactical Needs and Aircraft Maintenance Capabilities (Ella Olsson, Saab AB)	
A10	38587 Future fighter engine requirements and technologies (Richard Avellán, GKN)	B10 38857 Design of Electric Propelled Aircraft (Eduardo Bauzer Medeiros, Centro de Estudos Aeronauticos UFMG)	C10 38770 Ground Vibration Testing of the Gripen E Fighter Aircraft (Andreas Josefsson, Saab AB)	D10 39588 Formability of Titanium Ti-6Al-4V sheets at low temperature (Björn Carlsson, Quintus AB)	E10 38442 Weld cracking of nickel based superalloys for hot structural aero engine components – development of a testing method to investigate strain age cracking (Fabian Hanning, Chalmers)	F10 38847 Tactical trajectories generation using UAVs for the terrestrial displacement of mobile robots (Bruno Coelho, Universidade Federal de São João del-Rei)	G10 38230 Towards a Multi-Level, Multi-Disciplinary, and Multi-Fidelity Framework for Evaluating the System of Systems, Constituent Systems, and Sub-Systems Design Spaces during the Conceptual Development of Aerial Vehicles (Athanasios Papageorgiou, LIU)	H10 38580 Towards a future design of Swedish national airspace: a review of the current airspace limitations (Martin Wall, LfV)	I10 38353 Fibre Optic Acquisition Systems based on Fibre Bragg Gratings (FBG) - Applied to Over-heat detection for Commercial Aircraft (Anders Gustafsson, Saab AB)	J10 38988 Developing Predictable Time-Sensitive Distributed Avionics Systems (Mohammad Ashjaei, Mälardalen University)	K10 38480 Higher fidelity CFD of compressor duct bleed system (Elias Siggeirsson, Chalmers)	L10 39037 Air vehicle Digital Twins – enabling interaction between physical and virtual spaces (Olov Candell, Saab AB)	
10.00	COFFEE												
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10.30	Major cooperative projects	Environmentally friendly technology	Structures	Materials	Processes	Aircraft and spacecraft system analysis	Aircraft and spacecraft system analysis	Structure, materials and processes	Sub-system and system analysis	Sub-system and system analysis	Engines	Operational availability, maintenance and support	
			Structural Integrity	New Materials	Processes, Composites and Surface Treatment			Structures Aeroelasticity				Fault detection, condition based maintenance	
A11	38970 Analysis of the Impact of the Conclusion of the Collaborative Professional Master's program on Embraer and ITA (Paulo Lourencao, Embraer)	B11 39269 Assessment Of A Simplified Environmental Model For Aircraft Noise Prediction (Ilkka Karasalo, KTH)	C11 38367 Fatigue crack growth and failure in components made of AA2050 and AA7050 alloys (Zlatan Kapidzic, Saab AB)	D11 38986 Kraft lignin, waste from paper mill process, a promise to low cost green carbon fiber (Katia Nunes, ITA-CTE-Q)	E11 38137 Curing Simulation and Validation of High Temperature Composite L-Profiles using Incremental Viscoelastic Models (Sibin Saseendran, RISE SICOMP AB)	F11 38979 A MDO process applied to conceptual design of a remotely piloted aircraft (Carlos Eduardo de Souza, Federal University of Santa Maria)	G11 38845 Algebraic Modeling of Continuous Time Systems (Jose E. G. de Medeiros, University of Brasília)	H11 38705 Transonic Flutter for a Generic Fighter Configuration, the KTH-NASA Wind-Tunnel Model. (Axel Bååthe, Saab AB)	I11 38772 Challenges on the development of a digital hydraulic actuator for primary flight control surfaces (Victor J. De Negri, Federal University of Santa Catarina)	J11 38762 Applying Constraint Programming for Design Space Exploration in Avionics (Rodolfo Jordao, KTH)	K11 38843 Experimental aerodynamic investigation of powered nacelles for high bypass turbofan engines. (Vinicius Tavares Silva, Chalmers)	L11 38431 Fault detection and isolation based on bond graph models: application to an electromechanical actuator (Gabriel dos Santos Sobral, Embraer)	
A12	38860 ULTIMATE – a Chalmers led European effort for ultra-efficient propulsion (Tomas Grönstedt, Chalmers)	B12 39008 Understanding Loudness variations due to Landing procedures at Arlanda (Anders Johansson, KTH)	C12 38697 Effect of Surface Phenomenon and Defects on Fatigue Life in Electron Beam Melted Ti-6Al-4V (Viktor Sandell, LTU)	D12 39051 Working on Venus – a Project on Extreme Environment Electronics (Carl-Mikael Zetterling, KTH)	E12 38859 Fast forming of aircraft composite parts (Per Hallander, GKN)	F12 38378 Using UAS in Future Civil Command and Control Scenarios (Rego Granlund, RISE SICS East)	G12 39585 APEX – An ESA-CubeSat enabling new science in the exploration of the Solar system (Emil Vinterhav, V-kvadrat AB)	H12 38744 A Transient Formulation for Viscoelastic Materials using Fractional Calculus (André Garcia Cunha Filho, UFU)	I12 38262 Design and Control of the Digital Hydraulic Actuator for force-controlled flight control actuation (Alessandro Dell'Amico, Saab AB/LIU)	J12 38667 Languages and Tools for Formal Design of Cyber-Physical Systems (George Ungureanu, KTH)	K12 38912 Turbofans Fan Design Through the Integration of Computational Aeroacoustics and Computational Fluid Dynamics (Tania Marie Arispe Angulo, UNIFEI)	L12 39055 A Cost and Performance Optimization Model Proposal for Integrating Predictive and Scheduled Maintenance in Aviation (Danilo Figueiredo-Pinto, ITA)	
A13	38992 Meshing and CFD strategies for large scale turboprop WT model integrating morphing high-lift devices (Stefan Wallin, KTH)	B13 38246 Aircraft noise simulation with the SAFT-program (Ulf Tengzelius, CIT)	C13 38721 Static failure in components made of AA2050 and AA7050 alloys (Rikard Rentmeester, Saab AB)	D13 39535 Multilayered Thermal Barrier Coatings processed by Suspension Plasma Spraying (Per Nysten, University West)	E13 39023 New, sustainable corrosion protection of aircraft grade aluminium (Linnea Selegård, Saab AB)	F13 39590 Flow control for improved aerodynamic performance of aircraft (Shia-Hui Peng, FOI)	G13 38138 Towards automated design space exploration (Jakob R. Müller, Chalmers)	H13 39057 Study of Aeroviscoelastic systems using doublet lattice method (Denner Borges, UFU)	I13	J13 38669 Formal High-Level Model of a Radar Signal Processing System (George Ungureanu, KTH)	K13 38925 Aeroacoustics Performance of a Counter Rotating Blades in Boxprop format in a Propfan Tractor Engine. (Germán Enrique Niño Del Río, UNIFEI)	L13 39479 Model-based Sensor Fault Detection and Reconfiguration in an Autonomous Solar-powered Aircraft (Paulo Padrao, Federal University of Rio de Janeiro)	
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13.00-16.30	PLENARY PROGRAMME												