

8th EASN - CEAS International Conference on Manufacturing for Growth & Innovation

Final Programme

| Rooms | 1 | 2 | 3 | 4 |
|-----------------------|---|---|---|---|
| Time | Day 3 Thursday, September 6th, 2018 | | | |
| 8:30 - 15:00 | Registration | | | |
| 9:00 - 9:30 | "IABG Aircraft Testing Activities" Key-Note lecture speech by Dr. Konstantinos Stavrinidis IABG | | | |
| 9:35 - 10:05 | "The challenge of accelerating impact of academic aviation research for increased competitiveness of the European Aeronautics: the EASN approach" Key-Note lecture speech by Prof. Prof. Andreas Ströhmer European Aeronautics Science Network Association (EASN) | | | |
| 10:05 - 10:40 | Coffee Break | | | |
| Session 10:40 - 12:40 | Sir Charles Wilson building, Lecture Theatre | Gilmorehill Centre (G12), Room 217(A) | Gilmorehill Centre (G12), Room 217(B) | James Watt South building Room 526 |
| Session Title | EFFCOMP project - ECO-COMPASS project | Multifunctional Aeronautical Materials: Nanoscale Modifiers in Advanced Composite | RINGO Workshop II "Aviation Research Infrastructure Needs in Europe - Aerostatics" | Bionic Aircraft project |
| Session Chair(s) | Patrice Lefebvre (AIRBUS) Jens Bachmann (DLR) | Liberata Guadagno (University of Salerno) | Eike Stumpf & Sarina Broutmeier (RWTH Aachen) | Philipp Imgrund (Fraunhofer IPT) |
| 10:40 - 11:00 | ECO-COMPASS EU-China project: Status and Outlook on Ecological Improved Composites for Aviation Interior and Secondary Structure Jens Bachmann, Xiaosu Yi | Development of Aeronautical Epoxy Nanocomposites Having Integrated Self-Healing Ability Elisa Calabrese, L. Guadagno, L. Veruccino, C. Naddo, G. Barro, M. Raimondo, W.H. Binder, P. Michiel, S. Rana | Discussion Panel with the participation of the RINGO project partners and invited international experts on Aerostatics | Bionic Aircraft - Enhancing resource efficiency of aviation through implementation of ALM technology and bionic design Philipp Imgrund |
| 11:00 - 11:20 | Numerical characterization of non-woven eco-composites for aeronautical structures Xavier Martinez, Gonzalo Sagu, Gabriel Bugada, Sergio Oller | Nanocomposites conductivity point measurement using Tunneling AFM (TUNA) Mariagjulia Raimondo, Liberata Guadagno, Luigi Veruccino, Carlo Naddo, Giuseppe Barro, Giovanni Spinelli, Patrizia Lamberti, Vincenzo Tucci, Khalid Lafat | | Repair of Al components by low temperature high velocity combustion spraying for aeronautical applications Maïra Parca, A. Gomez, I. Eragoaga, G. Bayraktar, C. Vaquero |
| 11:20 - 11:40 | The effect of geometrical non-linearity on the modal density of sandwich panels Hanane Ihar, Khalil Benamar, Bilal Hamis | Multidisciplinary Challenge in the design of an innovative ocive skin for adaptive structures Massimo Vizzari, Maurizio Arena, Liberata Guadagno, Luigi Veruccino, Giuseppe Barro | | Manufacturing of high-strength Aluminum alloys by Induction Coupled Plasma Technology Roman Vert |
| 11:40 - 12:00 | Development of Innovative Curing Technologies within H2020 EFFCOMP Project, for Manufacture of HIG Performance CFRP Parts Patrice Lefebvre, Jacques Cinqun | Dielectric properties of aeronautical nanocomposites supported by Tunneling AFM (TUNA) Patrizia Lamberti, Vincenzo Tucci, Giovanni Spinelli, Khalid Lafat, Luigi Veruccino, Carlo Naddo, Giuseppe Barro, Mariagjulia Raimondo, Liberata Guadagno | | Optimization of the Laser Additive Manufacturing Process by Beam Shaping Tim Wacheppe, Dennis Juhlman, Fei Teng, Philipp Imgrund |
| 12:00 - 12:20 | Characterization of the forming properties of wide unidirectional prepreg tapes using the advanced Ply Placement (APP) Process K. Heuserath, M. Kappelhof, J. Kol, S. Carosella, P. Middendorf | Multi-scale modeling of polymers enhanced with MWCNs: The effect of dispersion, waviness and agglomerations Panagiotis Polytaraktis, Konstantinos Tsierpas, Spiros Panfiliakis, Christos Katsipoulous | | Innovative in-process and in-line quality assurance systems for additive layer manufacturing Susie Rufus, Steven Meile |
| 12:20 - 12:40 | Investigation on ultrasonic welding of CF/epoxy and CF/PEEK composites E. Itangou, S. Teixeira de Freitas, J. Fernandez Villegas, and R. Benevisech | Alternative route to N-doped graphene: CVD with solid single precursor Daniela Pisch, Ondrej Dufko, Daniel Cvejn | Innovative workflow for bionic design and structural optimization of ALM parts Jochen Michael, Lars Knig | |
| 12:40 - 14:00 | Lunch Break | | | |
| 14:00 - 14:30 | "Manufacturing challenges for next generation fast rotorcraft" - Outstanding opportunities for research establishments in Europe" | | | |
| Session 14:30 - 16:00 | Sir Charles Wilson building, Lecture Theatre | Gilmorehill Centre (G12), Room 217(A) | Gilmorehill Centre (G12), Room 217(B) | James Watt South building Room 526 |
| Session Title | ICARUS project | Hybrid Electric Aircraft | RINGO Workshop III "Aviation Research Infrastructure Needs in Europe - Aerodynamics" | Active Control / Noise and Vibration |
| Session Chair(s) | Nicolas Cordero (University of Burgos) | Andreas Ströhmer (University of Stuttgart) | Eike Stumpf & Sarina Broutmeier (RWTH Aachen) | Kostas Konlis (University of Glasgow) |
| 14:40 - 15:00 | Modelling, fabrication and characterization of nanocrystalline metal alloys for the aerospace sector: The ICARUS Project - Overview Nicolas Cordero | Effect of battery structural integration and energy management on the performance of a hybrid electric aircraft Teresa Donato, Claudia Lucia De Pascalis, Antonio Ficarella | Discussion Panel with the participation of the RINGO project partners and invited international experts on Aerodynamics | Simplified Method for Integration of the Dielectric Barrier Discharge Plasma Actuators Effect into CFD Panos Kaparos, Dimitris Kamnitsas, Zvon Vlachostefanos, Kyros Yakinthos |
| 15:00 - 15:20 | Prediction of mechanical properties of nanocrystalline materials using Voronoi FE models of representative volume elements Panagiotis Bozas, Konstantinos Tsierpas, Spiros Panfiliakis | Wing and propeller aerodynamic interaction through nonlinear lifting line theory and blade element momentum theory Hosopid Pavel, Kleza Jan, Žilavský Nikola | | Experimental investigation of the influence of dielectric barrier discharge (DBD) plasmas on liquid spray characteristics Elisa Pescini, David S. Martinez, Vitaliy Zecheriy, M. G. De Giorgi, A. Ficarella |
| 15:20 - 15:40 | Thermodynamic modelling of the stability of nano-grained polycrystals G.Kaplay, A. Deszo | Optimal sizing of electric motor configurations Giulio Avarani, Emanuela De Angelis, Fabrizio Giulietti, Edmondo Minicci | | Innovative Passive Multifrequency Propeller Device for Noise and Vibration Reduction in Turboprop Maurizio Arena, Angelo De Femia, Leonardo Lecco |
| 15:40 - 16:00 | Development and evaluation of nano-grains in tungsten based MMC G. Gergely, D. Peňhó, T. Mikó, M. Svédra, F. Kristály, F. Balogh, A. Roda, Z. Gönci | Exploration of hybrid-electric technology feasibility for distributed propeller regional aircraft Badrara Bahari, Quentin Borlan, Peïla Mendaza, Gabriel De Mendonça, Murat Baraz, Emmanuelle Benard | | Verification of boundary conditions applied for Active Flow Circulation Control Petr Vichota, Alex Prachar |
| 15:40 - 16:00 | Facile microstructural SEM characterization and accelerated testing for fast screening of nanostructured materials in powder metallurgy Antonio Rinaldi, Claudia Mingazzini, Daniele Mirabile Gattica, Emanuele Sento, Ugo De Angelis, Francesco La Torre, Francesco Delogu, Antonio Locci, Alvise Bianchini | Coffee Break | | |
| Session 16:00 - 18:10 | Sir Charles Wilson building, Lecture Theatre | Gilmorehill Centre (G12), Room 217(A) | Gilmorehill Centre (G12), Room 217(B) | James Watt South building Room 526 |
| Session Title | Overview and Open discussion on the Aviation Research projects supported by INEA under the H2020 societal challenge "Smart, Green and Integrated Transport" | Polymer Composites in Aerospace: Design and Manufacturing Challenges | RINGO Workshop III "Aviation Research Infrastructure Needs in Europe - Aerodynamics" | Additive manufacturing of innovative metal parts |
| Session Chair(s) | Daniele Violato (European Commission - INEA) | Cosmas Soulis (University of Manchester) | Eike Stumpf & Sarina Broutmeier (RWTH Aachen) | Jan Holm (NLR) |
| 16:30 - 16:50 | Open Discussion Panel on the Aviation Research projects supported by INEA under the H2020 societal challenge "Smart, Green and Integrated Transport" with the participation of project coordinators, international experts and the European Commission representatives | Experimental investigation of an impinging flame kerosene/Air on an aeronautical composite material Bridy Manesku, Nathan Grange, Khaled Cherehou, Ludovic Larmont, Nicolas Gascain, Alexis Coppalle, Samuel Senave, Isabelle Reynaud | Discussion Panel with the participation of the RINGO project partners and invited international experts on Aerodynamics | Additive Manufacturing of aluminum alloys using CMI technology Bianca F. Gomes, Luiz H. de Almeida, Paulo J. Morais, and Margarida Pinto |
| 16:50 - 17:10 | Evolution of Crack Stress Field in Composite Repaired Pipe Sections Rechukwu Onyegbali, Maria Kabaylay | New Design Methodology for Laminate Performance Enhancement in Passive Adaptive Wing Skins H. S. Jason Lee, Christopher B. York | | Predicting the optimal manufacturing parameters to manufacture titanium alumide components using laser engineering net shape Junyi Lee, Daniel S. Ballal, Quozhen Zeng, Adrian R.C. Shanmugam, James I. Hughes |
| 17:10 - 17:30 | Cryogenic Properties of CNT Buckypaper Reinforced Polyethylene Laminated Composites Hulya Cebeci, Gökçen Bozgeç, Bilim Altı-Varlı, Efil Özden Yenigün | 3D Printing of High-Performance Continuous Fiber Reinforced Polymers Adi Adumiltrao, Fedor Antonov, Aleksey Khabev, Andrey Anarov, Marius Simionescu, Paulus Glatkiewicz | | Minimization of shape deviation in 17-4 PH stainless steel conformal cooling channels by using selective laser melting Amor M. Kamari, Yutao Jie |
| 17:30 - 17:50 | Coffee Break | | | Self-repairing mechanism of magnesium silicate hydroxide nanohubs as lubricating oil additive for compressor piston Libo Wang, Yi Tang, Guoshang Shi, Mingqiao Wu |
| 17:50 - 18:10 | Coffee Break | | | Topology optimization including manufacturing constraints Wouter van den Brink, Emiel van de Ven, Jan Holm |
| 18:15 - 18:30 | Closing Ceremony | | | |