

## European\_Academia@EASA Conference

**23-24 March 2023**

EASA Headquarters in Cologne, Meeting room Airbus

### AGENDA

DAY 1 - 23 March, 2023

10:00 H – 10:30 H **CHECK-IN, Welcome coffee - Meeting Room Airbus & Foyer Grand Place**

10:30 H – 11:40 H **Morning Plenary session: Opening and Keynote speeches**

Welcome

**Rachel Daeschler**, Certification Director, EASA

Keynote speeches

- **Prof. Dr. Peter Hecker**, University Braunschweig, EASA Scientific Committee Chair
- **Patrick Soyer**, University Relations Manager, Airbus
- **Denis Bonet**, Chief Innovation Officer, Thales Group
- **Michel Piers**, vice Chairman European Research Establishments in Aeronautics Association, Director of NLR Air Transport Safety Institute

11:40 H – 13:30 H **Morning session: Presentations - Impact of climate change and extreme weather phenomena on the air transport system**

*Methodologies and tools for assessing the impact of changes to weather phenomena on civil air transport system components and operations*

Opening pitch on climate change

**Marc Wetterwald**, Weather technologies roadmap owner, Airbus

Setting the scene, introduction of presenters

**Session Committee member**

‘Impact of climate change on clear-air turbulence for aviation’

**Mohamed Foudad**, CECI, CERFACS/ CNRS Université de Toulouse

‘Evolution of high-temperature extreme events in the Euro-Mediterranean region and its impact on aircraft takeoff performance’

**Victoria Gallardo**, CECI, CERFACS/ CNRS Université de Toulouse

‘Modeling the impact of atmospheric variables and their uncertainty on the performance of an aircraft during take-off: Towards the adaptation of air traffic operations to global warming’

**Suzanne Salles**, CERFACS / ISAE-SUPAERO

13:10 H – 13:30 H Q&A SESSION

13:30 H – 14:15 H	<b>LUNCH BREAK - Meeting Room Airbus &amp; Foyer Grand Place</b>
14:15 H – 15:30 H	<b>Afternoon Session: Presentations - Artificial intelligence (AI) in aviation</b> <i>Development of applications integrated into civil aviation products along, including validation and verification solutions</i>  Opening pitch on AI <b>Thomas Krüger</b> , Deputy Head of the Institute and Head of Business Development & Strategy at German Aerospace Center (DLR) - Institute for AI Safety & Security  Setting the scene, introduction of presenters <b>Session Committee member</b>  'Safety verification of neural network based systems using formal methods' <b>Arthur Clavière</b> , Collins Aerospace and Onera  'Decision Support Tool for Airline Operation Control Hub Centre (DiSpAtCH)' <b>Jonas Langner</b> , Technische Universität Braunschweig  'Study and development of a real-time pilot monitoring system' <b>Gabriele Luzzani</b> , Politecnico di Torino
15:40 H – 16:00 H	Q&A SESSION
16:00 H – 16:20 H	<b>COFFEE BREAK - Meeting Room Airbus &amp; Foyer Grand Place</b>
16:20 H – 17:30 H	<b>Afternoon Session: Presentations - Artificial intelligence (AI) in aviation</b>  Resume Afternoon session, introduction of presenters <b>Session Committee member</b>  'Assurance of Artificial Intelligence in Safety-Critical Avionics Systems' <b>Manuel Hirschle</b> , Technische Universität Darmstadt  'Aircraft Maintenance Planning Under Uncertainty' <b>Iordanis Tseremoglou</b> , Delft University of Technology  'Detection, classification, characterization and reduction of satellite navigation signals degradation by Machine Learning and application in synthetic environment' <b>Thomas Gonzalez</b> , Ecole Nationale d'Aviation Civile
17:30 H – 17:50 H	Q&A SESSION
17:50 H – 18:10 H	<b>EASA Junior Professional Programmes and recruitment activities</b>
18:10 H – 18:20 H	<b>WRAP-UP DAY 1</b>
18:20 H – 20:00 H	<b>SOCIAL EVENT – DRINKS, FINGERFOOD &amp; NETWORKING - Meeting Room Airbus &amp; Foyer Grand Place</b>

## DAY 2 - 24 March, 2023

8:30 H – 9:00 H	<b>CHECK-IN, Welcome coffee - Meeting Room Airbus &amp; Foyer Grand Place</b>
9:00 H – 10:10 H	<p><b>Morning session: Presentations – Artificial Intelligence (AI) in Aviation (cont'd)</b></p> <p>Setting the scene, introduction of presenters  <b>Session Committee member</b></p> <p>‘Estimation of the probability of mid-air collisions in terminal maneuvering areas’  <b>Timothé Krauth</b>, ONERA, ZHAW Centre for aviation</p> <p>‘Conflict Resolution at High Traffic Densities with Reinforcement Learning’  <b>Marta Ribeiro</b>, Delft University of Technology</p> <p>‘Use of reinforcement learning for derivative free optimization and surrogate modelling’  <b>Isabella Vulpio</b>, Università degli studi Roma Tre</p>
10:10 H – 10:30 H	Q&A SESSION
10:30 H – 11:00 H	<b>COFFEE BREAK - Meeting Room Airbus &amp; Foyer Grand Place</b>
11:00 H – 12:45 H	<p><b>Morning session: Presentations - Environmental sustainability of air transport (emissions, noise, air quality, other nuisance, ...)</b></p> <p><i>Methodologies and tools to assess the impact of aviation products and operations and the proposed mitigations</i></p> <p>Opening pitch on environmental sustainability  <b>Alexandre Triverio</b>, Policy Coordinator Federal Office of Civil Aviation Switzerland, Focal Point for environment in the EASA Member States Advisory Group</p> <p>Setting the scene, introduction of presenters  <b>Session Committee member</b></p> <p>‘Assessment of non-CO2 climate effects of aviation’  <b>Patrick Peter</b>, DLR, Delft University of Technology</p> <p>‘Simulation of medium- and long-term scenarios for sustainable air transport using a multidisciplinary approach’  <b>Antoine Salgas</b>, ISAE-SUPAERO</p> <p>‘Eco-efficient aircraft routing to largely reduce climate impact’  <b>Federica Castino</b>, Delft University of Technology</p> <p>‘Measurement driven Doc.29 aircraft noise modelling’  <b>Rebeka van der Grift</b>, Delft University of Technology</p>
12:45 H – 13:05 H	Q&A SESSION
13:05 H – 13:45 H	<b>LUNCH BREAK - Meeting Room Airbus &amp; Foyer Grand Place</b>

13:45 H – 15:40 H

**Afternoon Plenary Session: Presentations - New approaches and methods for safety risk management in aviation**

*New methods, tools to support safety analysis, risk identification and management, safety culture*

Opening pitch for Safety Risk Management

**Nabil Ben Mami**, EASA Safety Risk Management Section Manager

Setting the scene, introduction of presenters

**Session Committee member**

‘Development of Critical Enablers For Unmanned Traffic Management’

**Leonid Sedov**, Linköping University

‘Definition of a methodology for the determination and application of a variable separation minima between aircraft in flight in an en-route environment’

**Lidia Serrano Mira**, Universidad Politécnica de Madrid

‘Highly Automated Contingency Management Framework for UA Operations’

**Hugo Eduardo Teomitzi**, Technische Universität Darmstadt

‘Novel methods for the analysis of Flight Data’

**Jasra Sameer**, University of Malta

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15:40 H – 16:00 H

Q&A SESSION

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16:00 H – 16:30 H

**CONCLUSIONS & AWARD CEREMONY**

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