

8th SESAR INNOVATION DAYS

AGENDA

3-7 December
2018, Salzburg



Monday, 3 December 2018

12:00

Registration opens and will remain open throughout the conference and exhibition

12:45 – 17:15

ASDA Series of Tournaments 2018

LOCATION: Salzburg Congress Centre, 4th floor, Room: Doppler Saal

GATEMAN workshop

EMPHASIS Workshop

14:00 – 17:00

LOCATION: Natural Sciences (NaWi)
Faculty, A-5020 SALZBURG,
Hellbrunnerstraße 34.
Room 413

LOCATION: Natural Sciences (NaWi)
Faculty, A-5020 SALZBURG,
Hellbrunnerstraße 34,
Room 424

Cocktail and official opening of the poster exhibition

17:30 – 19:00

- Florian Guillermet, Executive Director, SESAR JU
- Jeff Poole, Director General, CANSO
- Maria Algar Ruiz, UTM - SESAR Coordinator, EASA
- Andrew Cook, Coordinator, Engage network

LOCATION: Salzburg Congress Centre, first floor

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Tuesday, 4 December 2018

8:30 – 9:00

Welcome coffee

9:00 – 9:20

Welcome and opening

- Vicerector Ferreira-Briza, University of Salzburg
- Elisabeth Landrichter, Director General, Austrian Civil Aviation Authority

9:20 – 10:00

Keynotes

- Filip Cornelis, Director Aviation, DG MOVE, European Commission
- Philippe Merlo, Director ATM, EUROCONTROL
- Florian Guillermet, Executive Director, SESAR JU

10:00 – 10:45

Engage network

- Andrew Cook, Coordinator, Engage network
- Paula López, Consortium Member, Engage network
- Tatjana Bolic, Consortium Member, Engage network
- Dirk Schaefer, SIDs Programme Committee Chair

(The welcome and keynote sessions will take place in the Karajan Hall)

10:45 – 11:15

Coffee & Exhibition

11:15 – 13:00

Machine Learning I

Chair: *Jacco Hoekstra, TU Delft*

Flight Level Prediction with a Deep Feedforward Network

Matthias Poppe, DFS

Automated Data-Driven Prediction of Aircraft Estimated Time of Arrival
Zhengyi Wang, ENAC

A Boosted Tree Framework for Runway Occupancy and Exit Prediction

Dario Martínez, Innaxis

(LOCATION: Karajan Hall)

Airports

Chair: *Sara Bagassi, University of Bologna*

Identification of Complexity Factors for Remote Towers

Christiane Schmidt, Linköping University

Stochastic Control of Turnarounds at HUB-Airports
Jan Evler, TU Dresden

SESAR 1 Solutions Implementation Key Feature - High Performing Airport Operations

Doroteja Timotic, University of Belgrade

(LOCATION: Wolf-Dietrich Hall)

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Tuesday, 4 December 2018

13:00 – 14:00

Lunch and exhibition

14:00 – 15:45

Data-driven Techniques

Chair: Marc Bourgois, EUROCONTROL

Smart Data Fusion: Probabilistic Record Linkage adapted to Merge Two Trajectories from Different Sources
Darío Martínez, Innaxis

Visual Analytics of Flight Trajectories for Uncovering Decision Making Strategies
Gennady Andrienko, Fraunhofer Institute IAIS

Aircraft Atypical Approach Detection using Functional Principal Component Analysis
Gabriel Jarry, ENAC

(LOCATION: Karajan Hall)

Economics and legal

Chair: Rita Markovits-Somogyi, HungaroControl

Decision Support for an Optimal Choice of Subsidised Routes in Air Transportation
Alan Kinene, Linköping University

Shared Airspace, Shared Liability?
Ivo Emanuilov, KU Leuven

Introducing Competition through Auctions in the Air Traffic Control Market
Nicole Adler, Hebrew University of Jerusalem

(LOCATION: Wolf-Dietrich Hall)

15:45 – 16:15

Coffee and exhibition

16:15 – 17:45

Plenary session 1: ATM research in the global perspective

- Ho Wei Sean, CAAS, Singapore
- Parimal Kopardekar, NASA
- Saulo Da Silva, ICAO
- Steve Bradford, FAA
- Tokuaki Nakajima, ENRI Japan

Moderated by Michael Standar, Chief Strategy & External Affairs, SESAR JU

(LOCATION: Karajan Hall)

17:45 – 19:00

Posters and Exhibits Cocktail

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Wednesday, 5 December 2018

9:00 – 9:30

Keynote on the Human Factor in ATM R&D

- Tom Laursen, EVP Europe, IFATCA
- Toni Waefler, IFATCA

9:30 – 11:00

Plenary session 2: Transport research into implementation

- Carlo Borghini, Executive Director, Shift2Rail
- Georg Trausmuth, Head of Corporate Research, Frequentis
- Eric Nantier, Director Operations Control Process, Lufthansa Group
- Olaf Dlugi, Chairman of the Industry Consultation Body
- Tanja Grobotek, CANSO Europe Director

Moderated by Peter Hotham, Deputy Director, SESAR JU

11:00 – 11:15

Artistic Interlude

(Morning sessions to take place in the Karajan Hall)

11:15 – 11:45

Coffee & exhibition

11:45 – 13:00

UTM and UAS

Chair: Francisco Saez, Cranfield University

Drone Delivery: Urban Airspace
Traffic Density Estimation
Jacco Hoekstra, TU Delf

Drone Information Service
Requirements for U-Space
Jacco Hoekstra, TU Delf

(LOCATION: Karajan Hall)

Meteo and Environment

Chair: Damian Rivas, University of Seville

Optimal Aircraft Path Planning in a
Structured Airspace Using Ensemble
Weather Forecasts
Antonio Franco, University of Seville

Mitigation potential of
environmental optimized aircraft
trajectories using climate metrics
Sigrun Matthes, DLR

(LOCATION: Wolf-Dietrich Hall)

13:00 – 14:30

Lunch & exhibition

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Wednesday, 5 December 2018

	Machine Learning II Chair: TBC	Airspace Design and Management <i>Chair: Daniel Delahaye, ENAC</i>
	Airline Disruption Management with Aircraft Swapping and Reinforcement Learning <i>Gabriel Hondet, ENAC</i>	Free Route Airspaces in Functional Air Space Blocks <i>Judith Rosenow, TU Dresden</i>
14:30 – 16:00	Application of Machine Learning for ATM Performance Assessment – Identification of Sources of En-Route Flight Inefficiency <i>Rodrigo Marcos, Nommon</i>	Tactical Prediction of the Number of Control Positions with Softmax Regression and Tree Search <i>Judicaël Bedouet, ONERA</i>
	Detecting Controllers' Actions in Past Mode-S Data by Autoencoder-Based Anomaly Detection <i>Xavier Olive, ONERA</i>	The Effects of the Introduction of Free Route in the Hungarian Airspace <i>Fanni Kling, HungaroControl</i>
	(LOCATION: Karajan Hall)	(LOCATION: Wolf-Dietrich Hall)

NETWORKING DINNER

Wednesday, 5 December 2018

	Hangar 7 Museum <i>Wilhelm-Spazier-Straße 7a, 5020 Salzburg</i>
19:00 -22:00	<i>Please note that there will be participant fee of 35 EUR to be paid in advance on-site during the main event.</i>
	Busses to the Hangar 7 museum will depart at 18:30 from outside the Salzburg Congress Centre

Thursday, 6 December 2018

Modelling and Simulation

*Chair: Lorenzo Castelli,
University of Trieste*

Assessment of Future Air Traffic
Management System Safety
Performances using a Network-
based Simulation Model

*Fedja Netjasov, University of
Belgrade*

9:30 – 11:00

Towards New Metrics Assessing
Air Traffic Network Interactions
*Silvia Zaoli, University of
Bologna*

Aircraft Drag Polar Estimation
Based on a Stochastic
Hierarchical Model
Junzi Sun, TU Delft

(LOCATION: Karajan Hall)

Flow Management

*Chair: Radosav Jovanovic, University of
Belgrade*

Occupancy Peak Estimation from Sector
Geometry and Traffic Flow data
Luis Basora, ONERA

Coordinated Capacity and Demand
Management in the European Core Area:
Results of a Large-scale COCTA Case Study
Nikola Ivanov, University of Belgra
Arrival Trade-offs Considering Total Flight
and Passenger Delays and Fairness
Luis Delgado, University of Westminster

(LOCATION: Wolf-Dietrich Hall)

11:00 – 11:30

Coffee & exhibition

Thursday, 6 December 2018

11:30 – 13:00	Controller Assistance Systems <i>Chair: Luis Delgado, University of Westminster</i>	Performance <i>Chair: Dirk Schaefer, EUROCONTROL</i>
	Building Blocks of Assistant Based Speech Recognition for Air Traffic Management Applications <i>Matthias Kleinert, DLR</i>	Open Flight Trajectories for Reproducible ANS Performance Review <i>Enrico Spinielli, EUROCONTROL</i>
	Hotspot Resolution with Sliding Window Capacity Constraints using the Path&Cycle Algorithm <i>Andreas Nakkerud, University of Oslo</i>	A Multi-layer Model for Long-term KPI Alignment Forecasts <i>Gérald Gurtner, University of Westminster</i>
	The Semantic Container Approach: Techniques for Ontology-based Data Description and Discovery in a Decentralized SWIM Knowledge Base <i>Bernd Neumayr, University of Linz and Eduard Gringinger, Frequentis</i>	Enhanced Indicators to Monitor ATM Performance in Europe – Main findings of the APACHE Project <i>Xavier Prats, UPC</i>
	(LOCATION: Karajan Hall)	(LOCATION: Wolf-Dietrich Hall)

13:00 – 14:00 **Lunch & exhibition**

- 14:00 – 15:00**
- Panel 3: Women in Aviation Research**
- Elisabeth Kotthaus, European Commission, DG MOVE
 - Rita Markovits-Somogyi, Hungarocontrol
 - Alison Roberts, NATS
 - Sara Bagassi, University of Bologna

Moderated by Tanja Bolic, SJU Scientific Committee

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Thursday, 6 December 2018

15:00 – 15:30

Coffee break & exhibition

15:30 – 16:00

Look ahead from the Engage network

- Andrew Cook, Coordinator, Engage network

16:00 – 16:30

SESAR Young Scientist Award Ceremony

16:30 – 17:00

Closing keynote

- Florian Guillermet, Executive Director, SESAR JU

Friday, 7 December 2018

SITE VISITS

- **TOUR 1: Salzburg Area** (Salzburg University, Salzburg Airport, Hangar 8, Austrian Airforce)
- **TOUR 2: Vienna** (Frequentis, University of Vienna)
- **TOUR 3: Vienna** (Austrian Airlines, Austrocontrol)

(You must be pre-registered to attend these tours, please speak to someone at the SIDS registration desk should you wish to attend)