



# 6<sup>th</sup> SESAR Innovation Days

Inspiring long-term research  
in the field of Air Traffic Management

8-10 November 2016

hosted by Technical University of Delft,  
Delft, the Netherlands

## Programme

- ➔ Explore.
- ➔ Share.
- ➔ Innovate.



founding members



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#SIDS2016



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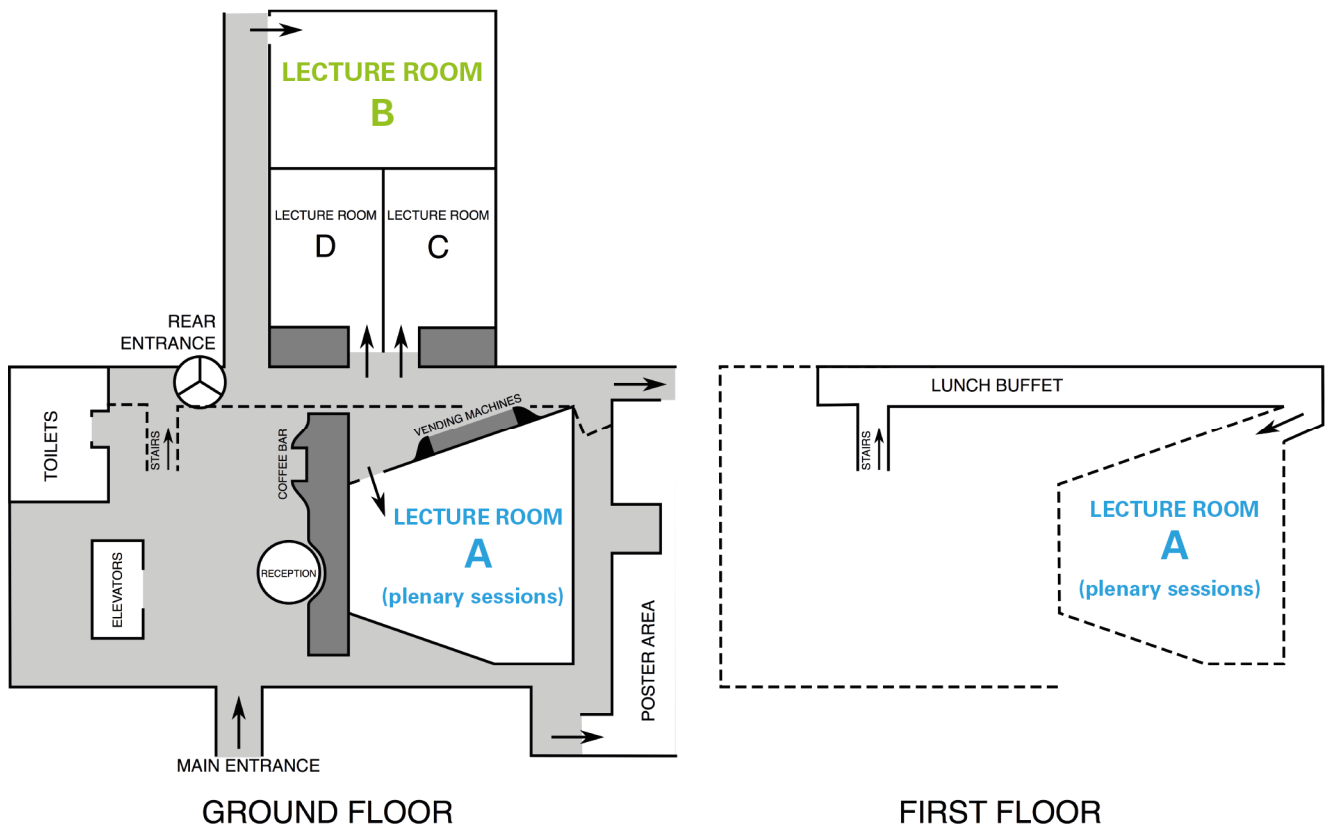
8-10 November 2016 - hosted by Technical University of Delft, the Netherlands

## Notes

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## Floor plan



**Monday, 7 November 2016**

15.00-18.00

**Workshop on ABM - Agent-based Modelling in Air Traffic Management**

**AUTOPACE Workshop**

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**Tuesday, 8 November 2016**

9:00 – 10:30

**Registration and coffee**

10:30 – 11:00

**Welcome and Opening Session**

*Chair: Jacco Hoekstra, TU Delft*

*David Bowen, SESAR JU*

*Triona Keaveney, SESAR JU*

*Dirk Schaefer, EUROCONTROL*

11:00 – 12:00

**Keynote**

*Jasper Daams, LVNL*

12:00 – 12:30

**Announcements and Latest News**

*David Bowen, SESAR JU*

*Kurt Klein, ASDA*

12:30 – 13:30

**Lunch**

13:30 – 15:15

**Human Factors\* (Lecture room A)**

*Chair: Max Mulder, TU Delft*

Ecological Approach to Train Air Traffic Control Novices in Conflict Detection and Resolution

*Clark Borst, TU Delft*

Critical Personality Aspects for Human-Machine Interaction in Highly Automated Aviation

*Solveig Eschen, DLR*

Modelling and Analysis of Controller's Taskload in Different Predictability Conditions

*Elmira Zohrevandi, Linköping University*

**Meteo & Environment\* (Lecture room B)**

*Chair: Damián Rivas, University of Seville*

Probabilistic Aircraft Conflict Detection Considering Ensemble Weather Forecast

*Alfonso Valenzuela, University of Seville*

Wind-Based Robust Trajectory Optimization using Meteorological Ensemble Probabilistic Forecasts

*Manuel Soler and Daniel González, UC3M*

Continuous Climb Operations with Minimum Fuel Burn

*Judith Rosenow, TU Dresden*

15:15 – 15:45

**Coffee**

15:45 – 17:00

**Safety & Security\* (Lecture room A)**

*Chair: Francisco Saez Nieto, Cranfield University*

A Safety Impact Quantification Approach for Early Stage Innovative Aviation Concepts

*Sybert Stroeve, NLR*

Discussion on Complexity and TCAS Indicators for Coherent Safety Net Transitions

*Christian Verdonk, Cranfield University*

**Data Science\* (Lecture room B)**

*Chair: Marc Bourgois, EUROCONTROL*

Big Data Analytics for a Passenger-Centric Air Traffic Management System

*Pedro García, Nommon*

Visual Analytics and Machine Learning for Air Traffic Management Performance Modelling

*Rodrigo Marcos, Nommon*

17:00 – 18:30

**Posters Session 1, Cocktail**

\* include poster teaser sessions (15 min)

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## Wednesday, 9 November 2016

9:00 – 9:45	<b>Watson and Natural Language Processing Applications in Aviation</b> <i>William G Dubyak, IBM</i>	
9:45 – 10:00	<b>Musical Interlude</b> <i>Krashna Musika</i>	
10:00 – 11:00	<b>Decision Support Tools (Lecture room A)</b> <i>Chair: Billy Josefsson, LFV</i>  TriControl - A Multimodal Air Traffic Controller Working Position <i>Oliver Ohneiser, DLR</i>  Probabilistic Runway and Capacity Forecasting using Machine Learning to Support Decision Making <i>Arjen de Leege, To70</i>	<b>CNS Technology (Lecture room B)</b> <i>Chair: Bruno Lamiscarre, ONERA</i>  GBAS Interoperability Trials and Multi-Constellation/Multi-Frequency Ground Mockup Evaluation <i>Thomas Feuerle, TU Braunschweig</i>  Effect of ADS-B Characteristics on Airborne Conflict Detection and Resolution <i>Thom Langejan, TU Delft</i>
11:00 – 11:30	<b>Coffee</b>	
11:30 – 13:00	<b>Airports (Lecture room A)</b> <i>Chair: Michael Schultz, DLR</i>  Investigating the Safety-Relevance of Limited Distinctive Features on a Multi Remote Tower-Working Position <i>Lothar Meyer, LFV</i>  Can LiDAR Point Clouds effectively contribute to Safer Apron Operations? <i>Johannes Mund, TU Dresden</i>  Runway Pressure Research <i>Wouter Vermeersch, TU Delft</i>	<b>RPAS (Lecture room B)</b> <i>Chair: Dirk Kuegler, DLR</i>  Human and Technical Performance Aspects in RPAS Integration Trials in Controlled Airspace <i>Jorge Bueno, ISDEFE</i>  Effects of En-route Wake Vortex on RPAS Operations <i>Marc Pérez-Batlle, UPC</i>  Human Factor Impact Assessment of RPAS Integration into Non-segregated Airspace <i>Pablo Sanchez-Escalonilla, CRIDA</i>
13:00 – 14:00	<b>Lunch</b>	

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14:00 – 16:15

**ATM Operations, Architecture and Performance\* (Lecture room A)**

*Chair: Andrew Cook, University of Westminster*

Agent-based Modelling and Simulation of Trajectory Based Operations under Very High Traffic Demand  
*Henk Blom, NLR*

Geometric Separation  
*Kenneth Barker, Via Technology*

Improved Flexibility and Equity for Airspace Users during Demand-capacity Imbalance  
*Nadine Pilon, EUROCONTROL*

Maximizing ATM Cost-efficiency by Flexible Provision of Airspace Capacity  
*Stefano Starita, University of Warwick*

**BlueSky Tutorial and Workshop (Lecture room B)**

16:15 – 17:30

Posters Session 2, Coffee

19:00

Networking Event (Prinsenhof)\*\*

\* includes poster teaser session (15 min)

\*\* Participant contribution: 40 € (to be paid at the conference desk)

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## Thursday, 10 November 2016

9:00 – 11:00

**Airspace Management (Lecture room A)**  
*Chair: Guglielmo Lulli, Lancaster University*

Dynamic Airspace Sectorization using  
Controller Task Load  
*Michael Schultz, DLR*

Towards an Operational Sectorisation  
based on Deterministic and Stochastic  
Partitioning Algorithms  
*Judicaël Bedouet, ONERA*

Integrated Optimization of Terminal  
Manoeuvring Area and Airport  
*Ji Ma, ENAC*

Hot Spot Identification and Mitigation at  
Strategic Level by Subliminal Changes in  
Aircraft Time of Arrival at Junction  
*Dany Gatsinzi, Cranfield University*

**Economics (Lecture room B)**

*Chair: Radosav Jovanovic, University of  
Belgrade*

Hub Operations Delay Recovery based  
on Cost Optimisation  
*Luis Delgado, University of Westminster*

Introducing More Competition into  
ATM: Possible Institutional Designs  
*Eef Delhaye, Transport & Mobility  
Leuven*

Quantifying Resilience in ATM –  
Contrasting the Impacts of Four  
Mechanisms during Disturbance  
*Luis Delgado, University of Westminster*

The Economic Value of Adding Capacity  
at Airports  
*Gérald Gurtner, University of  
Westminster*

11:00 – 11:30

Coffee

11:30 – 12:00

**SESAR Exploratory Research**

*David Bowen, SJU*

12:00 – 12:30

Closing plenary

12:30 – 13:30

Lunch

14:00 – 16:30

ASDA Research Tournament

APACHE workshop

## Friday, 11 November 2016

9:00 – 13:15

ASDA Research Tournament