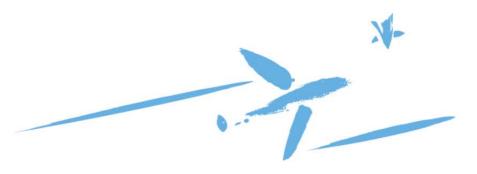




Inspiring long-term research in the field of AirTraffic Management

1-3 December 2015 hosted by Università di Bologna, Bologna, Italy

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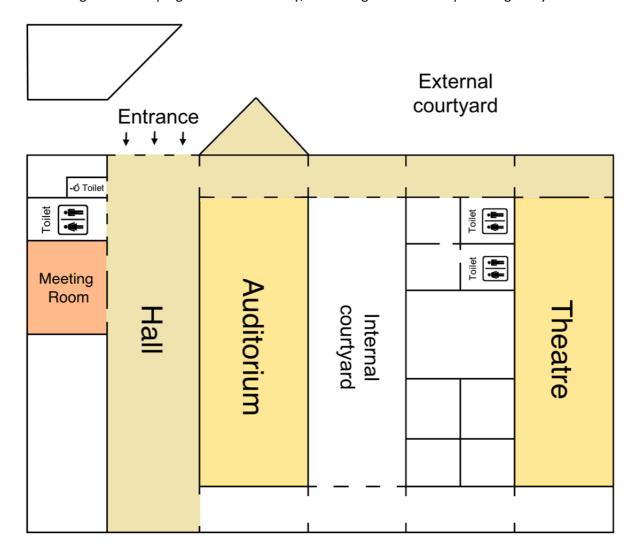




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The SESAR Innovation Days 2015 take place at the Laboratori delle Arti of Università di Bologna. Laboratori delle Arti (http://www.dar.unibo.it/it/dipartimento/presentazione/sedi/laboratori-dellearti) is located in the centre of Bologna at Piazzetta P. P. Pasolini, 5/b, Bologna but google map users are recommended to use via Azzo Gardino 65/a, Bologna (google seems to confuse Piazzetta P. P. Pasolini with via P. P. Pasolini).

Enter the gate and keep right to the laboratory, beach flags should be in place to guide you.



## **Draft Programme**

#### Monday, 30 November 2015

14.00-18.00

Workshop: "Resilience 2050" organized by Innaxis and FP7 project "Resilience 2050"





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### Tuesday, 1 December 2015

9:00 – 10:30	REGISTRATION, COFFEE		
	Opening Session  Session Chair: Colin Meckiff, EUROCONTROL		
	Welcome and Opening		
10:30 - 11:00	Antonino Rotolo, University of Bologna		
	Colin Meckiff, EUROCONTROL Dirk Schaefer, EUROCONTROL		
11:00 – 11:45	Keynote 'Challenges and Opportunities for Innovation'  Xavier Fron, EUROCONTROL / SESAR Scientific Committee		
11:45 – 12:15	The European ATM Master Plan		
11.45 12.15	Alain Siebert, SJU		
12:15 – 12:30	Latest news from WP-E Research Network ComplexWorld  Latest news from WP-E Research Network HALA!		
12:30 – 14:00	LUNCH		
	Liability and Regulation* (Auditorium)	Human Factors* (Theatre)	
	Session Chair: Anna Masutti, LS Lexjus Sinacta	Session Chair: Billy Josefsson, LFV	
	Desire Association to the Hilling AGAG Versil	A . For the late of the street of the Thoron	
	Design According to Liabilities: ACAS X and the Treatment of ADS-B Position Data	An Empirical Investigation into Three Underlying Factors Affecting Automation	
	Giuseppe Contissa and Hanna Schebesta, EU	Acceptance	
14:00 – 15:45	Institute	Carl Westin, CHPR	
	ACCHANGE: Lessons Learned and Way	The Sixth Sense of an Air Traffic Controller	
	Forward Eef Delhaye, Transport & Mobility Leuven	Eva Eggeling, Fraunhofer Austria and Theodor Zeh, Frequentis	
	Towards a Performance Based Regulation for	Skill, Rule and Knowledge - based Behaviour	
	the Integration of Drones in the Civil Aviation	Detection by Means of ATCOs' Brain Activity	
	System Francis Schubert, skyguide	Gianluca Borghini, Sapienza University of Rome and Stefano Bonelli, Deep Blue	
15:45 – 16:15	COFFEE		
	Delays* (Auditorium)	HMI and Decision Support Tools* (Theatre)	
	Session Chair: Andrew Cook, University of Westminster	Session Chair: Dirk Kuegler, DLR	
16:15 – 18:00	Delay Assignment Optimization Strategies at Pre-Tactical and Tactical Levels	Human-automation Collaboration Strategies  Jonas Lundberg, Linköping University	
	Luis Delgado, University of Westminster	2 3, 1, 19 2	
	TREE Model: A Tool to Explore Delay	Self-Managing Conflict Resolution for	
	Reduction Scenarios in the ECAC Area  Carla Ciruelos Pardo, ISDEFE	Autonomous Taxiing Tugs: An Initial Survey  Zarrin Chua, ISAE-Supaero	
	Curia Ciracios Farao, ISDLI L	Zurrin Chau, 13AL-3upacro	





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Delays\* (continued)

Controller Time and Delay Costs - a Tradeoff Analysis Luis Delgado, University of Westminster

**HMI and Decision Support Tools\*** (continued)

Experimental Quantification of Times Needed to Comply With Air Traffic Control Advisories Markus Vogel, TU Dresden

18:00 - 19:30

#### **POSTERS AND EXHIBITS SESSION 1, COCKTAIL**

#### Wednesday, 2 December 2015

9:00 - 10:45

#### **ASDA Research Tournament**

Session Chair: Pierre Andribet, EUROCONTROL

#### Match 1: RPAS Integration into Controlled Airspace

Referee: Jacco Hoekstra, TU Delft

Martina Ragosta, Deep Blue (Human Factors) and Jose Javier Ramasco, IFISC (Complexity Science) vs. Giuseppe Contissa, EU Institute (Legal) and Alan Groskreutz, CRIDA (Safety)

#### Match 2: Increasing Trajectory Prediction Accuracy under Bad Weather Conditions

Referee: Peter Hecker, TU Braunschweig

Norbert Fürstenau, DLR (Sensors & Dynamic Systems) and Guglielmo Lulli, Lancaster University (Network Analytics) vs. Ricardo Herranz, Nommon (Data Science, Complex Systems Theory) and Jaap Heijstek, NLR (Meteo)

#### **Artistic Interlude:**

#### Maestro Pietro Fabris - Violin

Collegium Musicum Almae Matris

Johann Sebastian Bach - Chaconne, dalla Partita No. 2 BWV 1004

11:00 - 11:30

11:30 - 13:00

10:45 - 11:00

#### **COFFEE**

#### **Economics (Auditorium)**

Session Chair: Lorenzo Castelli, Università degli Studi di Trieste

Price-Setting Auctions for Airport Slot Allocation: a Multi-Airport Case Study

Ricardo Herranz, Nommon

Modulation of En-route Charges to Redistribute Traffic in the European Airspace Lorenzo Castelli , Università degli Studi di Trieste

Efficiency vs. Flexibility in ATM: Can Pricing Help?

Radosav Jovanovic, University of Belgrade

#### **Applied Modelling & Optimization (Theatre)**

Session Chair: David Perez, Innaxis

Improvement of Pushback Time Assignment Algorithm via Stochastic Optimization Ryota Mori, ENRI

Pre-Tactical Planning of Runway Utilization Under Uncertainty: Optimization and Validation Norbert Fürstenau, DLR

ELSA Air Traffic Simulator: an Empirically Grounded Agent Based Model for the SESAR Scenario

Salvatore Micciche, Università degli Studi di Palermo

### **5th SESAR Innovation Days**





<sup>\*</sup> include poster teaser and exhibition announcements (15 min)

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13:00 – 14:30 LUNCH

Capacity and Airspace Design (Auditorium)
Session Chair: Peter Hecker, TU Braunschweig

A Framework of Point Merge-based Autonomous System for Optimizing Aircraft Scheduling in Busy TMA Man Liang, ENAC

A Baseline for Terminal Airspace Design Assessment Valentin Polishchuk, Linköping University

Analysis of 2NM Separation for Minimal Pair Arrivals Alan Groskreutz, CRIDA

3D Sectors Design by Genetic Algorithm Towards Automated Sectorisation Marina Sergeeva, ENAC EMFASE - SecRAM Risk Management Tutorial and Workshop (Theatre)

Workshop Chair: Fabio Massacci, University of Trento

For registration and more information about the workshop please consult the dedicated workshop page on

www.sesarinnovationdays.eu

16:30 - 17:30

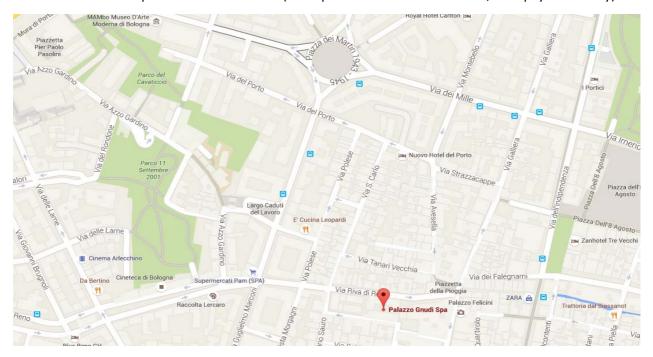
14:30 - 16:30

**POSTERS AND EXHIBITS SESSION 2, COFFEE** 

19:00

NETWORKING EVENT\*\*
Palazzo Gnudi
Via Riva Reno 77
Bologna

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







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Thursday, 3 December 2015			
	<b>Meteo</b> Session Chair: Paul Neering, IFATCA	Safety and Security Session Chair: Bruno Lamiscarre, ONERA	
9:00 – 10:30	Recommendations on Trajectory Selection in Flight Planning based on Weather Uncertainty Alan Hally, Météo-France	Preliminary Experiments on the Relative Comprehensibility of Tabular and Graphical Risk Models Katsiaryna Labunets, University of Trento	
	Analysis of the Effect of Uncertain Average Winds on Cruise Fuel Load Rafael Vazquez, University of Seville	Real-time Simulations to Evaluate RPAS Contingencies in Shared Airspace Marc Pérez-Batlle, UPC	
	Improving the Mitigation of Wind Hazards in ATM Operations with Ground-based Wind Doppler LIDARs  Ludovic Thobois, LEOSPHERE	A Flight Delay Reporting and Analysis Platform Through Secure Information Sharing Emre Koyuncu, Istanbul Technical University	
10:30 – 11:00	COFFEE		
	Closing Session Session Chair: David Bowen, SJU		
11:00 – 11:30	The future of SESAR Exploratory Research  David Bowen, SJU		
11:30 – 12:15	Young Scientist Award  Nominees present their Research  Awards presented by the SESAR Scientific Committee		
12:15 – 12:30	Latest news from SESAR		
12:30 – 13:00	Closing plenary Report and Observations from HALA! Report and Observations from ComplexWorld		

Workshop: "HALA! Tools and resources to face new research challenges on ATM automation: Learn how to use them"

(starts with a HALA!-guided tour of the city and includes lunch)

Workshop Chair: Rosa Arnaldo, Universidad Politécnica de Madrid

For registration and more information about the workshop please consult the dedicated workshop page on

www.sesarinnovationdays.eu

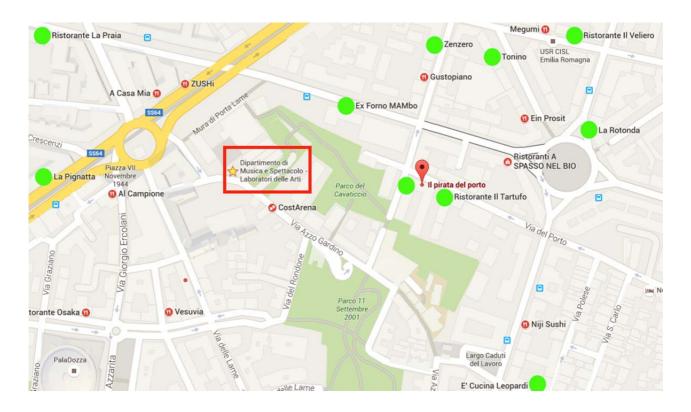




13:00 - 16:30

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### Restaurants walking distance from Laboratori delle Arti



A number of restaurants are walking distance from the conference venue, none of them further than a 10 minute walk away from the Laboratori delle Arti. Green dots are recommendations of our local organizers.



