

International Workshop on Robust Modeling, Design & Analysis

Tools, Methods & Aero-Space Applications



September 18-19, 2017, Bristol, U.K.



Organizers: Andrés Marcos (UoB, TASC) & Jean-Marc Biannic (ONERA, SMAC)

Sponsored by the School of Civil, Aerospace and Mechanical Engineering (CAME) of UoB

Webpage: <http://www.bristol.ac.uk/engineering/events/2017/international-aerospace-workshop.html>

Event location: Engineers' House
The Promenade
Bristol, BS8 3NB

Email: venues@eef.org.uk
Telephone: 0117 906 4800

Directions: comprehensive PDF guide with directions, shuttle & bus info can be found at <https://www.eef.org.uk/venues/engineers-house-bristol> and attached to the email

Monday 18: "Robust-MDA: tools & methods"

time slot	mins	title	speaker(s)
09:00-09:20	20	Welcome & Introduction	A. Marcos & J-M. Biannic
The SMAC toolbox			
09:20-09:40	20	A comprehensive introduction to the SMAC toolbox	J-M. Biannic (ONERA)
09:40-10:10	30	Systems modeling with the GSS and APRICOT Libraries	C. Roos (ONERA)
10:10-10:40	30	Variations on μ analysis with the SMART Library	C. Roos (ONERA)
10:40-11:00	20	Towards high-order nonlinear robustness analysis with the IQC Libraries	J-M. Biannic (ONERA)
11:00-11:20	20	Anti-windup design with the SAW & OISTeR Libraries	J-M. Biannic (ONERA)
11:20-11:45	25	Coffee	
Aeronautics: A Civilian Aircraft Landing Challenge & Applications I			
11:45-12:10	25	A Civilian Aircraft Landing Challenge	J.M. Biannic (ONERA)
12:10-12:35	25	Challenge: TASC control designs, analysis and validation	A. Marcos (UoB)
12:35-13:00	25	H2020 VISION project: an EU-Japan Flight Test Collaboration	A. Marcos (UoB)
13:00-14:30	90	Lunch	
LPVtools toolbox			
14:30-15:10	40	LPVTools: A Toolbox for Modeling, Analysis, and Synthesis of Parameter Varying Control	P. Seiler (UMN)
15:10-15:35	25	LPVtools II: LPV Robustness Analysis using Integral Quadratic Constraints	H. Pfiffer (UNottingham)
15:35-16:00	25	LPVtools III: Robustness Analysis for Finite-Horizon LTV Systems	P. Seiler (UMN)
16:00-16:25	25	ESA NPI VEGAdapt project: LPV control of the VEGA launcher Vehicle during atmospheric flight	D. Navarro-Tapia (UoB)
19:30-22:30		Dinner at Browns @ 38 Queens Road, Bristol, BS8 1RE	

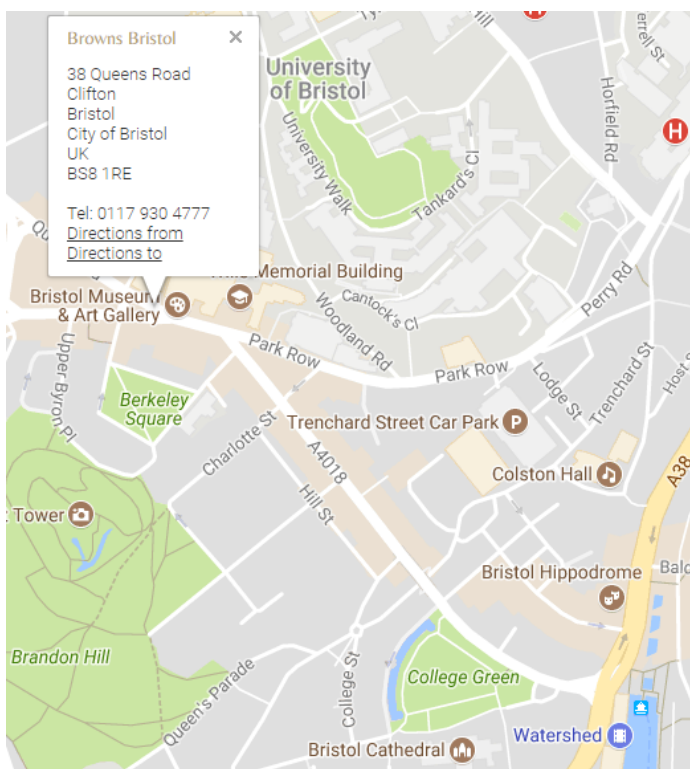
Tuesday 19: "Robust-MDA: applications"

time slot	mins	title	speaker(s)
H2020 FLEXOP Project			
09:00-09:25	25	H2020 FLEXOP project	B. Vanek (SZTAKI)
09:25-09:50	25	FLEXOP I: A mu, describing function and IQC framework for flutter analysis	A. Iannelli (UoB)
09:50-10:15	25	FLEXOP II: Integrated Modelling Approach for Flexible Aircraft Dynamics	T. Kier (DLR)
10:15-10:40	25	FLEXOP III: H-infinity based flutter control	A. Marcos (UoB)
10:40-11:05	25	FLEXOP IV: application design	T. Peni (SZTAKI)
11:05-11:30	25	Coffee	
Space Applications			
11:30-12:10	40	Robust Control in Space: past, present and future	S. Bennani (ESA)
12:10-12:35	25	UK Space Agency NTSP2 project: Robust guidance & control for space exploration	P. Simplício (UoB)
12:35-13:00	25	Modelling and design of large flexible multi-body space structure	C. Cumer (ONERA)
13:00-13:25	25	Performance robustness analysis of aerospace vehicles: some feedback from the user point of view	D. Alazard (ISAE)
13:30-15:00	90	Lunch	
Aeronautics Applications II			
15:00-15:25	25	Aeroelastic Control Co-design	R. Palacios (Imperial)
15:25-15:50	25	A novel approach to aeroelastic design of unconventional configurations: Merging FSI solvers and LFT/ μ tools	R. Cavarallo (UC3M)
15:50-16:15	25	Uncertainty Quantification and Robust Optimization	J. Cooper (UoB)
16:15-16:40	25	US PAAW project: Modeling, Control, and Flight Tests for a Flexible Airacraf	P. Seiler (UMN)
19:30-22:30		Dinner at Severn Shed @ The Grove, Bristol, BS1 4RB	

Restaurant locations (applicable to full registration only)

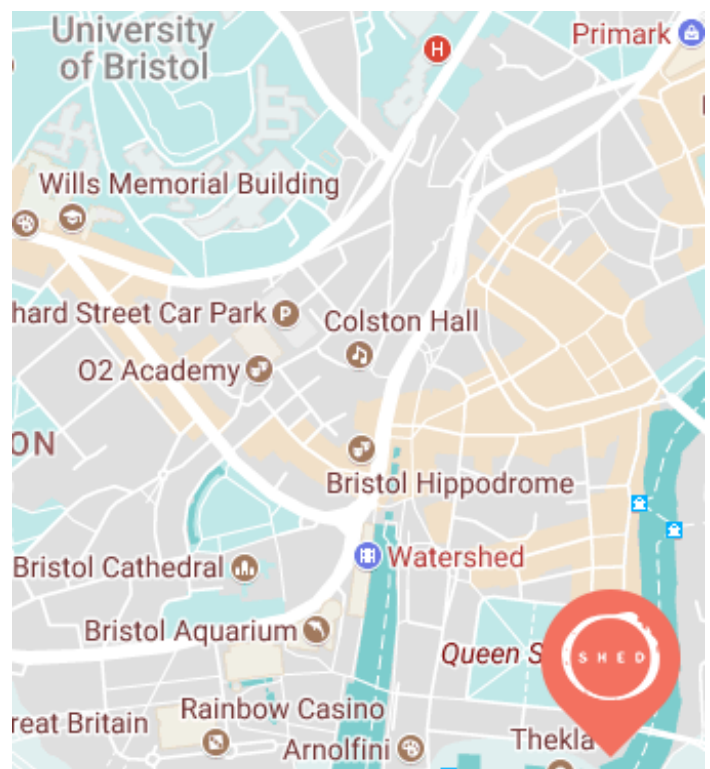
Monday 18: Browns

38 Queens Road, Bristol, BS8 1RE



Tuesday 19: Severn Shed

The Grove, Bristol, BS1 4RB



Participants

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