

BOQUSE 2013: PROGRAM

December 16: "Computational methods for uncertainty propagation"

09:00-09:30		
Welcome Reception		
09:30-10:30	Plenary	G. E. Karniadakis (Brown University, USA) <i>"New methods for stochastic modeling and uncertainty quantification"</i>
10:30-11:00		
Coffee Break		
11:00-12:00	Plenary	O. Le Maitre (LIMSI-CNRS, FRANCE) <i>"Recent advances in spectral methods for the uncertain incompressible Navier-Stokes equations"</i>
12:00-13:45		
Lunch		
13:45-14:45	Plenary	J. Witteveen (CWI, The Netherlands) <i>"Uncertainty propagation methods with finite volume robustness"</i>
14:45-15:05	Session	J. Nordstrom and M. Wahlsten : "Variance reduction by robust design of boundary conditions for stochastic hyperbolic systems of equations"
15:05-15:25		B. Monmarson and C. Corre : "Implicit semi-intrusive approach for uncertainty quantification : efficiency assessment"
15:25-15:45		
Coffee Break		
15:45-16:05	Session	D. Schiavazzi, A. Doostan, G. Iaccarino : "Sparse multiresolution regression for uncertainty propagation"
16:05-16:25		L. Mathelin, A. Spantini and Y. Marzouk : "A Rank Reduction technique for Time-Dependent Parametric PDEs"
16:25-16:45		M. Raisee, D. Kumar and C. Lacor : "Development of a Non-intrusive Model Reduction Approach for Polynomial Chaos Representation"

December 17 : "Uncertainty analysis in fluid dynamics simulations"

09:30-10:30	Plenary	P. M. Congedo (INRIA Bordeaux Sud-Ouest, FRANCE) <i>"Uncertainty Quantification for compressible flows"</i>
10:30-11:00		
Coffee Break		
11:00-12:00	Plenary	G. Iaccarino (Stanford University, USA) <i>"Uncertainty quantification in turbulent flow simulations"</i>
12:00-13:45		
Lunch		
13:45-14:45	Plenary	P. Sagaut (Université Pierre et Marie Curie, FRANCE) <i>"UQ for convection-dominated nonlinear flows: recent examples"</i>
14:45-15:05	Session	B. Fritsche : "Uncertainty quantification for re-entry survivability prediction"
15:05-15:25		A. Turchi, P.M. Congedo and T. Magin : "Ablation modeling with forward uncertainty analysis in Plasmatron facility"
15:25-15:45		
Coffee Break		
15:45-16:05	Session	W.N. Edeling, P. Cinnella, R.P. Dwight : "Capturing model error in RANS turbulence models"
16:05-16:25		I. Azijli, R. Dwight and H. Bijl : "A Bayesian approach to physics-based reconstruction of incompressible flows"
16:25-16:45		L. Dell'Elce and G. Kerschen : "Uncertainty quantification of the aerodynamic force of a convex-shaped spacecraft in free-flow regime"

December 18: "Sensitivity and Optimization"

09:00-10:00	Plenary	M. Vasile (University of Strathclyde, UK) <i>"Fast Belief Estimation in Evidence-Based Robust Optimisation of Space Systems"</i>
10:00-10:30		
Coffee Break		
10:30-11:30	Plenary	B. Sudret (ETH Zurich, Switzerland) <i>"Sparse polynomial chaos expansions and their application to sensitivity analysis"</i>
11:30-12:30	Plenary	V. Pediroda (University of Trieste, ITALY) <i>"Optimization with uncertainties: an overview"</i>
12:30-13:45		
Lunch		
13:45-14:05	Session	K. Tang, P.M. Congedo and R. Abgrall : "Sensitivity analysis using anchored ANOVA expansion and high order moments computation"
14:05-14:25		A. Resmini, J. Peter and D. Lucor : "High-dimensional stochastic investigation of 2D RANS flow about an helicopter airfoil"
14:25-14:45		S. K. Harouna and E. Mémin : "Navier-Stokes equations under location uncertainty"
14:45-15:05		G. Perrin, C. Soize, D. Duhamel and C. Funfschilling : "Karhunen-Love based sensitivity analysis"
15:10-15:20		
Concluding Remarks		