

Publications related to the project

Journal papers

- **R. Abgrall and P.M. Congedo**, A semi-intrusive deterministic approach to uncertainty quantifications in non-linear fluid flow problems, Journal of Computational Physics, Volume 235, 15 February 2013, Pages 828-845.
- **Edeling W.N., Cinnella P., Dwight R., Bijl H.**, "Bayesian estimates of the parameter variability in the k-epsilon turbulence model". Journal of Computational Physics, Volume 258, February 2014, pp 73-94
- **R. Abgrall, P. Congédo, G. Geraci.**, A One-Time Truncate and Encode Multiresolution Stochastic Framework, Soumis au Journal of Computational Physics, Volume 257, Part A, 15 January 2014, Pages 19-56.
- **J. Tryoen, P.M. Congédo, R. Abgrall, N. Villedieu and T. Magin.**, Bayesian-based method with metamodels for rebuilding freestream conditions in atmospheric entry flow. AIAA journal, submitted
- **M Lazareff**, Towards autonomous discovery of stiff structures in CFD Design of Experiment space, from random-walk automaton steered by the "spiral" criterion, Computers and Fluids, in revision.
- **W. N Edeling, P. Cinnella, R. Dwight**, Predictive RANS simulations via Bayesian Model-Scenario Averaging, Journal of Computational Physics, November 2013

Conferences

- **Edeling W.N., Cinnella P., Dwight R., Bijl H.**, "Towards estimating turbulence modelling discrepancy in RANS with Bayesian inference", Poster presentation, Uncertainty in Computer Models (UCM) 2012 Conference, Sheffield, UK, 2-4 July 2012.
- **X. Merle, P. Cinnella**, "Bayesian quantification of thermodynamic uncertainties in dense gas flows", accepted for oral presentation at the SAMO 2013 Conference, Nice, 1-4 July 2013.
- **W. Edeling, P. Cinnella, R. Dwight, H. Bijl**, " Bayesian estimates of the parameter variability in turbulence models for the RANS equations", oral presentation at the SAMO 2013 Conference, Nice, 1-4 July 2013.

- **M Pini, P Cinnella**, Hybrid Adjoint-based Robust Optimization Approach for Fluid-Dynamics Problems AIAA Paper 2013-1814 In proceeding of: 15th Non-Deterministic Approaches Conference 2013
- **J. Tryoen, P.M. Congedo, R. Abgrall, N. Villedieu, Th. Magin**, Bayesian-based method with metamodels for rebuilding freestream conditions in atmospheric entry flows, AIAA Paper 2013

Reports

- **J. Tryoen, P. Congedo, R. Abgrall, T. Magin, N. Villedieu**, Sensitivity analysis and characterization of the uncertain input data for the EXPERT vehicle INRIA RR-8323
http://hal.inria.fr/index.php?sid=klc3vdbr67qbmmmi03p9bvg2v6&view_this_doc=hal-00859809&version=1
- **M.G. Rodio and P. Congedo**, Quantifying uncertainties in a Venturi multiphase configuration. INRIA RR-8180
http://hal.inria.fr/index.php?sid=klc3vdbr67qbmmmi03p9bvg2v6&view_this_doc=hal-00765009&version=1

PhDs

- **Gianluca Geraci**, *Schemes and Strategies to Propagate and Analyze Uncertainties in Computational Fluid Dynamics Applications*, Université de Bordeaux, December 6th, 2013