Workshop deadlines

- Intention to participate on UMRIDA test cases: **April 4th, 2016**
- Submission of abstract: **July 18th, 2016**
- Abstract acceptance (latest): **August 1st, 2016**
- Registration to workshop (150 €): **September 1st, 2016**
- Submission of presentations on test case results: **September 9th, 2016**

Abstract submission

Please submit your abstract on one of the following topics, latest by July 18th, 2016:

- Application of UQ to industrial relevant configuration
- New developments in the field of UQ
- New developments in the field Robust Design

Abstracts should be uploaded upon registration on: *www.umrida.eu*

Organizers

Charles Hirsch | Numeca International
Dirk Wunsch | Numeca International
Chris Lacor | Vrije Universiteit Brussel

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no ACP3-GA-2013-605036

Uncertainty Management for Robust Industrial Design in Aeronautics

UMRIDA

UMRIDA Workshop on Robust Design Optimization (RDO)

RDO accounting for a large number of simultaneous uncertainties

September 20 21 Tuesday 2016 Wednesday

Vrije Universiteit Brussel
Brussels, Belgium

www.umrida.eu

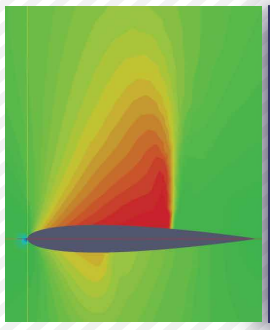
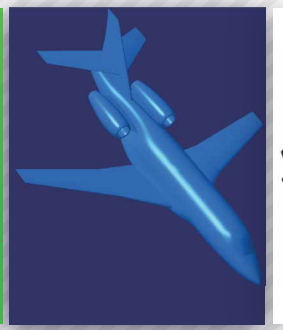
The focus of the UMRIDA Workshop on Robust Design Optimization (RDO) lies on the industrial application of Uncertainty Quantification (UQ) and RDO techniques accounting for a large number of uncertainties. The overall objective is the assessment and application of UQ and RDO methods in industrial design practice.

Participants from academia and industry are welcome to take part in this workshop on one of the following topics:

- New developments and innovative methodologies for industrial application of UQ and RDO techniques.
- Application of UQ and RDO to relevant industrial configurations, including multidisciplinary configurations, such as fluid-structure interaction, aero-acoustics or combustion.
- Application of UQ and RDO to some UMRIDA test cases with prescribed uncertainties, originating from the unique UMRIDA validation database with prescribed uncertainties.

The program will be completed by presentations from inside the consortium on state of the art methods of UQ and RDO methods applied to multidisciplinary industrial test cases including aero-acoustics, fluid-structure interaction, turbine cooling or combustion.

Finally, invited speakers who are addressing state-of-the art research in the field of Robust Design Optimization are completing the workshop program.

Test cases open to workshop participants

The following test cases, which are part of the **unique UMRIDA database with prescribed uncertainties**, are open to participants from outside the consortium. The description of the test cases will be provided after registration and received payment to the workshop.

BC-01: NASA rotor 37
5 operational and geometrical uncertainties (uncertainties on operating conditions and blade shape)
BC-02: RAE 2822 airfoil
3 operational and geometrical uncertainties (uncertainties on operating conditions and airfoil shape)
BC-03: DLR F6 wing-body
5 operational and geometrical uncertainties (uncertainties on operating conditions and wing shape)
IC-08: Business jet configuration
5 operational and geometrical uncertainties (uncertainties on operating conditions and wing shape)

Invited Speakers

Dr. Shahrokh Shahpar, Rolls-Royce plc, United Kingdom
Applications of UQ and Robust Design in Turbomachinery Industry

More speakers to be announced shortly on www.umrida.eu