

## Special sessions

### Uncertainty Quantification and Optimization

6th World Congress on Global Optimization (WCGO 2019)

July 8 - 10, 2019, Metz, France

<https://wcgo2019.event.univ-lorraine.fr/>

**Organizers:** Eduardo Souza de Cursi (INSA Rouen Normandie, France) and Rafael Holdorf (UFSC, Brazil).

Eduardo Souza de Cursi is full professor at INSA Rouen Normandy, head of the Laboratory of Mechanics of Normandy, EiC of Computational and Applied Mathematics.

Rafael Holdorf Lopez is professor at the Federal University of Santa Catarina (UFSC) and leader of the Center for Optimization and Reliability in Engineering (CORE),

#### General description of the special session

Uncertainty Quantification (UQ) is a collection of methods destined to quantify the variability of systems, namely by connecting data about the variability of the inputs of a system to the variability of its response. UQ is often combined with optimization, for instance, to determine the effects of the variability of data or parameters on the results of optimization procedures, to generate robust solutions, to estimate the reliability of the solutions and to determine optimal points under probabilistic constraints. In addition, some approaches in UQ lead to Global Optimization (GO) problems. This session will explore the connections between UQ and GO.

#### Session topics

The list of topics will include (but is not limited to them):

- GO determination of UQ representations
- UQ representation of GO solutions
- Reliability
- Reliability Based Design Optimization (RBDO)
- UQ and Multiobjective Optimization
- UQ and Game Theory
- UQ and Duality, Sensitivity, Lagrange Multipliers

#### Submission

Submissions are open at <https://wcgo2019.event.univ-lorraine.fr/page/submissions>  
(Select the track “Special Session - Uncertainty Quantification and Optimization”)

#### Important dates:

January 31, 2019	Deadline for the submission
February 28, 2019	Notification of acceptance/rejection