



4th National Conference on Multidisciplinary Design, Analysis and Optimization

POLYNOMIAL CHAOS EXPANSIONS (PCE) AND UQ LAB

Prof. Bruno Sudret & Nora Lüthen ETH Zurich

> 12.00PM - 1.30PM: Lecture 1.31PM - 3.00PM: Hands on

https://www.uqlab.com/download

Bruno Sudret is a professor of Risk, Safety and Uncertainty quantification at ETH Zurich. His teaching and research interests are computational methods for uncertainty quantification, reliability and sensitivity analysis, Bayesian approaches for model calibration and reliabilitybased design optimization, among others.

Bruno Sudret is the author and co-author of more than 250 publications in journal and conference proceedings. He currently serves in the editorial board of Reliability Engineering and Systems Safety, Probabilistic Engineering Mechanics and Structural Safety. He promotes the dissemination of uncertainty quantification techniques through the development of the software UQLab and the community platform UQWorld.

Nora Lüthen is a PhD student at ETH Zurich

In the master class on October 7th, they will talk about using Polynomial Chaos Expansions (PCE) for Uncertainty Quantification.