



QMC Opening Workshop
August 28-September 1, 2017

Lecture: *Multilevel QMC for Forward and Inverse UQ*

Speaker: Christoph Schwab

Abstract:

We present recent result on the numerical analysis of Quasi Monte-Carlo quadrature methods, applied to forward and inverse uncertainty quantification for elliptic and parabolic PDEs. Particular attention will be placed on Higher-Order QMC, the stable and efficient generation of interlaced polynomial lattice rules, and the numerical analysis of multilevel QMC Finite Element discretizations with applications to computational uncertainty quantification.