**Dr. Laura SCARABOSIO - TU Münich**

**Accelerating Monte Carlo sampling for PDEs with random multiscale coefficients**

Uncertainty quantification for partial differential equations (PDEs) for random heterogeneous materials is computationally challenging, because, in principle, one needs to resolve the small scale variations for every sample. In this talk, I will show how to construct surrogate models which do not require resolving the microstructure and use them in a multilevel framework to accelerate Monte Carlo sampling.