



**Open Working Group Meeting  
Uncertainty Quantification (UQ)**

November 3, 2002 (2:00 - 4:30 pm)

Location: TBD (TACC)

Working Group Lead: Alexandros Taflanidis

**Purpose:** Engage both current and potential future users of SimCenter tools in a discussion on priorities, needs and opportunities to best support their research through shared computational research infrastructure

**AGENDA**

2:00 - 2:10 pm	Introduction to the Working Group & Overview of SimCenter UQ Tools
2:10 - 2:35 pm	Discussion Segment 1: Forward Uncertainty Propagation <ul style="list-style-type: none"><li>• Surrogate and reduced order modeling</li><li>• Multi-fidelity approaches</li><li>• Global sensitivity analysis</li></ul>
2:35 - 3:05 pm	Discussion Segment 2: Bayesian Updating <ul style="list-style-type: none"><li>• Bayesian updating and model class selection formulations</li><li>• Hierarchical model updating</li><li>• Addressing modeling complexity</li><li>• User needs discussion (emphasis on experimental facilities)</li></ul>
3:05 - 3:30 pm	Discussion Segment 3: High-dimensional Uncertainties <ul style="list-style-type: none"><li>• Motivation example from regional loss assessment</li><li>• Recent SimCenter developments</li><li>• Open discussion on future opportunities</li></ul>
3:30 - 3:55 pm	Discussion Segment 4: Integration of UQ Tools and Algorithms <ul style="list-style-type: none"><li>• Integration process for UQ engines/algorithms within SimCenter tools</li><li>• Demonstration of recent integrated tools</li><li>• Open discussion on future opportunities</li></ul>
3:55 - 4:20 pm	Prioritization Exercise & Action Plan
4:20 - 4:30 pm	Closing & Gratitude <ul style="list-style-type: none"><li>• Next Steps</li><li>• Getting involved</li><li>• Reception to follow</li></ul>