GAMM2025

Tuesday 8 April 2025

S15: Uncertainty quantification: S15.01 - Room 7 (08:30 - 10:30)

-Conveners: Roland Pulch; Magdalena Łasecka-Plura

time	[id] title	presenter
08:30	[397] On significance of probabilistic entropy and distance in elasto-plasticity problems	KAMIŃSKI, Marcin
09:10	[402] Random vibrations of internally supported plates by the Boundary Element Method	GUMINIAK, Michał
09:30	[403] Combining first-order second-moment method and internal numerical differentiation for efficient uncertainty quantification	TRÖGER, Jendrik-Alexander
09:50	[406] On modeling of porous-media wetting with randomly distributed hydrophobic defects	GOSSEL, Lisanne
10:10	[407] Estimates of errors generated by uncertain data in a coupled pieso-electric problem	SAMROWSKI, Tatiana

S15: Uncertainty quantification: S15.02 - Room 7 (16:30 - 18:30)

-Conveners: Kerstin Lux-Gottschalk; Ulrich Römer

time	[id] title	presenter
16:30	[412] Deep learning methods for stochastic Galerkin approximations of ranodm PDEs	BARTH, Andrea
16:50	[417] Stochastic Galerkin method for delay differential equations with random parameters	PULCH, Roland
17:10	[423] Markov chain Monte Carlo with particle-solver-based likelihoods	LØVBAK, Emil
17:30	[430] An adaptive Quasi Monte Carlo approach for concentrated distributions	ZHOU, Jinyi
17:50	[434] Earthquake-induced multimodal non-linear stochastic response of the guy line in the guyed tower	WEBER, Hanna

Wednesday 9 April 2025

S15: Uncertainty quantification: S15.03 - Room 7 (08:30 - 10:10)

-Conveners: Roland Pulch; Magdalena Łasecka-Plura

time	[id] title	presenter
08:30	[449] Uncertainty Quantification For Lévy Random Fields - Theory and Numerics	GOTTSCHALK, Hanno
09:10	[452] Laplace Transform–Based Non-Probabilistic Uncertainty Analysis of Viscoelastically Damped Structures	ŁASECKA-PLURA, Magdalena
09:30	[461] Efficient first order second moment method for stochastic vibroacoustic problems with uncertain loads	HÜPEL, Yannik
09:50	[467] Incorporating Model Form Uncertainty in Digital Twins for Reliable Parameter Updating and Quantities of Interest Analysis	ARCONES, Daniel Andrés

S15: Uncertainty quantification: S15.04 - Room 7 (16:30 - 18:30)

-Conveners: Andrea Barth; Ulrich Römer

time	[id] title	presenter
16:30	[649] Sensitivity Analysis of Bifurcation Curves	LUX-GOTTSCHALK, Kerstin
16:50	[650] Augmented First-Order Reliability Method for Estimation of Imprecise Failure Probabilities	VALDEBENITO, Marcos
17:10	[651] Reliability analysis of structures with correlated random variables considering uncertain distribution parameters	LI, Peipei VALDEBENITO, Marcos A. FAES, Matthias G.R.
17:30	[652] Sensitivity Estimation of Failure Probability with Respect to Input Distribution Parameters in Stochastic Computational Models	ZHANG, Xuan-Yi
17:50	[653] Optimization of shell structures with fuzzy-probability based random fields using artificial neural networks	SCHWEIZER, Maximilian
18:10	[654] A high-performance multi-level stochastic gradient descent method with applications in optimal control under uncertainty	SCHNEIDERHAN, David

Thursday 10 April 2025

S15: Uncertainty quantification: S15.05 - Room 7 (08:30 - 10:30)

-Conveners: Ulrich Römer; Roland Pulch

time	[id] title	presenter
08:30	[655] Bayesian shape inversion in time-harmonic scattering	SCARABOSIO, Laura
09:10	[656] Sequential Quasi-Monte-Carlo Sampling for Bayesian Inference of Chemical Kinetic Models Utilizing Normalizing Flows	PANAGIOTOPOULOS, Andreas
09:30	[657] Comparison of mono-level and bi-level approaches for surrogate-based robust optimization	SCHULTZ, Julius
09:50	[658] Infinite Dimensional Bayesian Inversion for Semiconductor Devices	TAGHIZADEH, Leila
10:10	[659] Exploring Imprecise Probabilities in Quantum Algorithms with Possibility Theory	SCHNEIDER, Jan