

Thursday Schedule

Chair: Dr Yurchenko

Keynote presentation by **Professor K. Worden**

Probabilistic Reasoning in Structural Health Monitoring

Thursday Morning – 10:40	
Room 1	Room 2
Chairs: M. Santamaría and Dr D. Charnpis	Chairs: Dr S. Ramakrishnan and Prof. G. Falsone
<i>Reassessment of the Partial Safety Factor for Self Weight of Existing Bridges</i>	<i>Benchmark of Structural Reliability Methods for Non-Linear Structures</i>
<i>Reliability analysis of a post-tensioned railway bridge exposed to corrosion effects</i>	<i>The use of the probability transformation method in some random mechanic problems</i>
<i>A method to probabilistically estimate the future condition of aging bridges using recorded inspection data</i>	<i>Q factor enhancement in a nonlinear NEMS resonator driven by parametric excitation and Lévy processes</i>
<i>SHM-Based Bridge Reliability Assessment with Inherent Modelling Uncertainties: A Nonparametric Bayesian Approach</i>	<i>Uncertainty quantification of responses to nonlinear dynamical systems under coloured noise excitation via pdf evolution equations</i>
<i>Refining stochastic models for the reassessment of bridges using advanced NDT-methods</i>	<i>Nonlinear and stochastic dynamics in a forced vibro-impact energy harvester</i>

Thursday Afternoon – 13:40	
Room 1	Room 2
Chairs: A. Persoons and Dr L. Novák	Chairs: D. Müller and Dr R. Ortlepp
<i>Moment independent sensitivity analysis using Polynomial Chaos Expansion</i>	<i>Modification of the partial safety factor for compressive strength of existing masonry using a Bayesian method</i>
<i>Probabilistic robustness assessment for multi-component assemblies based on realistic case studies</i>	<i>A Bayesian methodology for a probabilistic evaluation of shear behaviour of masonry walls</i>
<i>Time-dependent reliability analysis of radioactive waste overpack in deep geological repository conditions</i>	<i>Sustainable building construction with the tension between material efficiency and earthquake vulnerability</i>
<i>Numerical Solutions for the Stochastic Bending Kirchhoff's Plate</i>	<i>Adaptive Kriging with biased randomisation for reliability analysis of complex limit state functions</i>