

PUBLICATIONS

- [1] E. Janouchová, A. Kučerová: Identification of Variability in Heterogeneous Material Properties Based on Hierarchical Modelling. In *UNCECOMP 2017*. Athens: Institute of Research and Development for Computational Methods in Engineering Sciences (ICMES), 2017.
- [2] E. Janouchová, A. Kučerová, J. Sýkora: Role of Random Factors in Nonlinear Regression: a Case Study for Estimation of Thermophysical Parameters. In *Engineering Mechanics 2017 - Book of full texts*. Brno: Brno University of Technology, 2017, p. 410-413. ISSN 1805-8248. ISBN 978-80-214-5497-2.
- [3] E. Janouchová, A. Kučerová, J. Sýkora: Bayesian Updating of Aleatory Uncertainties in Heterogeneous Materials. In *Modern Methods of Experimental and Computational Investigations in Area of Construction II*. Pfaffikon: Trans Tech Publications Inc., 2016, p. 136-141. Advanced Materials Research. vol. 1144. ISSN 1022-6680. ISBN 978-3-0357-1092-2.
- [4] T. Mareš, E. Janouchová, A. Kučerová: Artificial neural networks in the calibration of nonlinear mechanical models. In *Advances in Engineering Software*. 2016, vol. 95, p. 68-81. ISSN 0965-9978.
- [5] E. Janouchová, A. Kučerová, J. Sýkora, J. Vorel, R. Wendner: Bayesian calibration of lattice discrete particle model for concrete. In *REC 2016*. Bochum: Ruhr Universität Bochum, 2016, p. 399-410.
- [6] A. Kučerová, J. Sýkora, E. Janouchová, D. Jarušková, J. Chleboun: Acceleration of Robust Experiment Design using Sobol Indices and Polynomial Chaos Expansion. In *REC 2016*. Bochum: Ruhr Universität Bochum, 2016, p. 411-426.
- [7] E. Janouchová: *Identification of Aleatory Uncertainty in Parameters of Heterogeneous Materials*. Doctoral minimum, Czech Technical University in Prague, Faculty of Civil Engineering, 2016.
- [8] E. Janouchová, A. Kučerová, J. Sýkora: Quantification of Aleatory Uncertainties in Properties of Heterogeneous Materials. In *ESCO 2016*. Pilsen: University of West Bohemia, 2016, p. 122.
- [9] J. Sýkora, E. Janouchová, A. Kučerová, J. Vorel, R. Wendner: Bayesian Identification of Lattice Discrete Particle Model for Concrete. In *ESCO 2016*. Pilsen: University of West Bohemia, 2016, p. 247.
- [10] A. Kučerová, J. Sýkora, E. Janouchová: Robust Experiment Design for Identification of Thermophysical Parameters Part I: Acceleration Using Polynomial Chaos Expansion and Sobol Indices. In *ESCO 2016*. Pilsen: University of West Bohemia, 2016, p. 147.

- [11] E. Janouchová, A. Kučerová, J. Sýkora: Epistemic Uncertainty Identification via Different Bayesian Inference Methods. In *Engineering Mechanics 2016 - Book of full texts*. Prague: Institute of Thermomechanics AS CR, 2016, p. 246-249. ISSN 1805-8248. ISBN 978-80-87012-59-8.
- [12] E. Janouchová, A. Kučerová, J. Sýkora: Stochastic Model Calibration Based on Measurements from Different Experiments. In *Modern Methods of Experimental and Computational Investigations in Area of Construction*. Pfaffikon: Trans Tech Publications Inc., 2016, p. 135-140. Applied Mechanics and Materials Vol. 825. ISSN 1660-9336. ISBN 978-3-03835-603-5.
- [13] E. Janouchová, A. Kučerová, J. Sýkora: Polynomial Chaos Construction for Structural Reliability Analysis. In *Proceedings of the Fourth International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering [CD-ROM]*. Civil-Comp Press, Stirlingshire, UK, Paper 9, 2015. ISSN 1759-3433. ISBN 978-1-905088-64-5.
- [14] E. Janouchová, A. Kučerová, J. Sýkora: Stochastic properties of heterogeneous material: identification from a set of destructive experiments. In *UNCECOMP 2015*. Athens: Institute of Research and Development for Computational Methods in Engineering Sciences (ICMES), 2015.
- [15] E. Janouchová, A. Kučerová, J. Sýkora: Stochastic properties of heterogeneous material: Identification from observations on a set of specimens. In *UNCECOMP 2015*. Athens: Institute of Research and Development for Computational Methods in Engineering Sciences (ICMES), 2015.
- [16] E. Janouchová, A. Kučerová, J. Sýkora: Parameter identification of heterogeneous materials from a set of destructive experiments. In *Engineering Mechanics 2015*. Prague: Institute of Thermomechanics AS CR, 2015, p. 118-119. ISSN 1805-8248. ISBN 978-80-86246-42-0.
- [17] E. Janouchová, A. Kučerová, J. Sýkora: Probabilistic parameter identification of heterogeneous viscoplastic material. In *Proceedings of the 5th Conference Nano and Macro Mechanics*. Prague: Czech Technical University in Prague, Faculty of Civil Engineering, 2014. ISBN 978-80-01-05569-4.
- [18] E. Janouchová, A. Kučerová, J. Sýkora: Probabilistic Estimation of Material Parameters Based on a Set of Experimental Curves. In *ESCO 2014*. Pilsen: University of West Bohemia, 2014, p. 106.
- [19] E. Janouchová, A. Kučerová, J. Sýkora: Efficient Bayesian parameter identification. In *Engineering Mechanics 2014*. Prague: Institute of Thermomechanics AS CR, 2014, p. 264-267. ISSN 1805-8248. ISBN 978-80-214-4871-1.
- [20] E. Janouchová: *Bayesian identification of computational model parameters*. Diploma thesis, Czech Technical University in Prague, Faculty of Civil Engineering, 2014.
- [21] E. Janouchová, A. Kučerová, J. Sýkora: Polynomial chaos-based evaluation of failure probability: A numerical study. In *Proceedings of the 11th International Probabilistic Workshop*.

- Brno: University of Technology, Faculty of Civil Engineering, Institute of Structural Mechanics, 2013, p. 145-157. ISBN 978-80-214-4800-1.
- [22] E. Janouchová, A. Kučerová, J. Sýkora: Efficient methods for uncertainty quantification. In *Proceedings of the 4th Conference Nano and Macro Mechanics*. Prague: Czech Technical University in Prague, Faculty of Civil Engineering, 2013, p. 91-98. ISBN 978-80-01-05332-4.
- [23] E. Janouchová, A. Kučerová, J. Sýkora: Polynomial chaos-based methods for uncertainty quantification and reliability analysis. In *Book of abstracts of the Third International Conference on Material Modelling*. Warsaw 2013, p. 138. ISBN 978-83-89687-83-8.
- [24] E. Janouchová, A. Kučerová, J. Sýkora: Comparison of Numerical Methods for Uncertainty Quantification. In *Engineering Mechanics 2013*. Prague: Institute of Thermomechanics AS CR, 2013, p. 235-246. ISSN 1805-8256. ISBN 978-80-87012-47-5.
- [25] E. Janouchová, A. Kučerová: Competitive comparison of optimal designs of experiments for sampling-based sensitivity analysis. In *Computers & Structures*. 2013, vol. 124, p. 47-60. ISSN 0045-7949.
- [26] E. Janouchová, T. Mareš, A. Kučerová: Comparison of Optimal Designs of Experiments in Application to Sensitivity and Inverse Analysis. In *Proceedings of the 3rd Conference Nano and Macro Mechanics*. Prague: Czech Technical University in Prague, Faculty of Civil Engineering, 2012, p. 95-102. ISBN 978-80-01-05097-2.
- [27] T. Mareš, E. Janouchová, A. Kučerová: Calibration of Affinity Hydration Model Using Artificial Neural Networks. In *Proceedings of the 3rd Conference Nano and Macro Mechanics*. Prague: Czech Technical University in Prague, Faculty of Civil Engineering, 2012, p. 155-162. ISBN 978-80-01-05097-2.
- [28] T. Mareš, E. Janouchová, A. Kučerová: Artificial neural networks in calibration of nonlinear models. In *Life-Cycle and Sustainability of Civil Infrastructure Systems*. Leiden: CRC Press/Balkema, 2012, p. 2225-2232. ISBN 978-0-415-62126-7.
- [29] T. Mareš, E. Janouchová, A. Kučerová: Artificial Neural Networks in Parameter Identification. In *Proceedings of the 6th European Congress on Computational Methods in Applied Sciences and Engineering*. Vienna: Vienna University of Technology, 2012. ISBN 978-3-9502481-9-7.
- [30] E. Janouchová, T. Mareš, A. Kučerová: Comparison of Optimal Designs of Experiments Suitable for Inverse Analysis. In *ESCO 2012*. Pilsen: University of West Bohemia, 2012, p. 90.
- [31] E. Janouchová: *Designs of experiments for sampling-based sensitivity analysis*. Bachelor's thesis, Czech Technical University in Prague, Faculty of Civil Engineering, 2012.
- [32] A. Kučerová, E. Janouchová: Sequential Designs of Experiments for Sampling-based Sensitivity Analysis. In *Engineering Mechanics 2012 [CD-ROM]*. Prague: Institute of Thermomechanics AS CR, 2012, p. 1-13. ISBN 978-80-86246-40-6.

- [33] T. Mareš, E. Janouchová, A. Kučerová: Application of Artificial Neural Networks in Identification of Affinity Hydration Model Parameters. In *Proceedings of the Eighth International Conference on Engineering Computational Technology*. Stirling: Civil-Comp Press Ltd, 2012, p. 1-14. ISBN 978-1-905088-55-3.
- [34] E. Janouchová, A. Kučerová: Sampling-based sensitivity analysis for designing truss structures. In *Proceedings of the 2nd Conference Nano and Macro Mechanics*. Prague: Czech Technical University in Prague, Faculty of Civil Engineering, 2011, p. 65-72. ISBN 978-80-01-04892-4.
- [35] A. Kučerová, E. Janouchová: Design of Experiments Suitable for Sampling-based Sensitivity Analysis. In *Proceedings of the Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering [CD-ROM]*. Edinburgh: Civil-Comp Press, 2011, p. 1-18. ISBN 978-1-905088-49-2.
- [36] E. Janouchová, A. Kučerová: Comparison of space-filling designs in discrete domains. In *Engineering Mechanics 2011*. Prague: Institute of Thermomechanics AS CR, 2011, p. 239-242. ISBN 978-80-87012-33-8.