

Submitted

- a. Dittes B., Špačková O., Straub D.: Managing uncertainty in flood predictions: Flexible protection strategies vs safety factors. *Water Resources Research*, under review.
- b. Giovanis D.G., Papaioannou I., Straub D., Papadopoulos V.: Bayesian updating with subset simulation using artificial neural networks. *Computer Methods in Applied Mechanics and Engineering*, under review.
- c. Papaioannou I., Straub D.: Learning soil parameters and updating geotechnical reliability estimates under spatial variability – theory and application to shallow foundations. *Georisk*, under review.
- d. Zwirgmaier K., Straub D., Groth K.: Capturing cognitive causal paths in human reliability analysis with Bayesian network models. *Reliability Engineering & System Safety*, under review.
- e. Papakosta P., Xanthopoulos G., Straub D.: Probabilistic prediction of wildfire economic losses to housing in Cyprus using Bayesian network analysis. *International Journal of Wildland Fire*, under review.
- f. Ji Y., Papaioannou I., Mok C.M., Straub D.: Reliability analysis of an infinite slope under intense rainfall considering soil variability. *Georisk*, under review.

Book chapters

1. Straub D., Papaioannou I. (2015): Bayesian analysis for learning and updating geotechnical parameters and models with measurements. Chapter 5 in: *Risk and Reliability in Geotechnical Engineering* (eds. Phoon K.-K., Ching J.), CRC Press.
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3. Straub D., Welpel I. (2014): Decision-making under risk: a normative and behavioral perspective. Chapter 3 in: *Risk - A Multidisciplinary Introduction* (eds. Klüppelberg C., Straub D., Welpel I.), Springer.

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8. Špačková O., Straub D. (in print). Long-term adaptation planning via fully and partially observable Markov decision processes. *Sustainable and Resilient Infrastructure*, under review.
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10. Depina I., Papaioannou I., Straub D., Eiksund G. (in print). Coupling the cross-entropy with line sampling method for risk-based design optimization. *Structural and Multidisciplinary Optimization*.
11. Schneider R., Thöns S., Straub D. (in print). Reliability analysis and updating of structural systems with subset simulation. *Structural Safety*.
12. Papakosta P., Straub D. (in print). Probabilistic prediction of daily fire occurrence in the Mediterranean based on weather and anthropogenic factors. *iForest*.

13. Luque J., Hamann R., Straub D. (in print). Spatial modeling of corrosion in ship structures. *ASCE-ASME Journal of Risk and Uncertainty Analysis*.
14. Zwirgmaier K., Straub D. (in print). A discretization procedure for rare events in Bayesian networks. *Reliability Engineering & System Safety*.
15. Sättele M., Krautblatter M., Bründl M., Straub D. (in print). Forecasting rock slope failures: How reliable and effective are warning systems? *Landslides*.
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