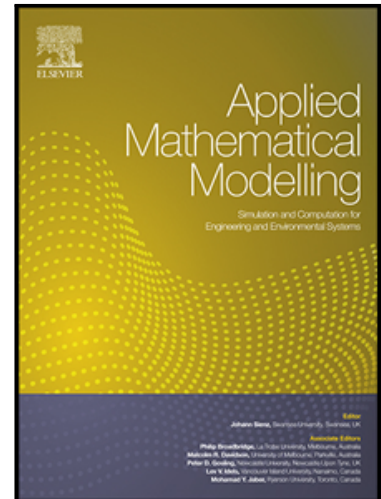


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Modelling of spatial variability of soil undrained shear strength by conditional random fields for slope reliability analysis

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Highlights

- A simplified approach for generating conditional random field is proposed.
- Analytical posterior statistics can be derived using the proposed approach.
- The proposed approach is more efficient and accurate than adaptive Bayesian updating with structural reliability methods.
- The actual spatial variation can be well characterized by conditional random field.
- Borehole layout scheme affects the probability of slope failure significantly.

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