Stochastic Mixed FEM for Parameter-Dependent Nearly Incompressible Elasticity Equations

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In this talk, we present some recent developments in the theory and implementation of mixed formulations of parameter dependent nearly incompressible linear elasticity problems. We introduce a novel three-field mixed variational formulation of the PDE model and discuss its approximation by stochastic Galerkin mixed finite element techniques. A priori and a posteriori error analysis will be presented. Numerical results will also be presented to validate the theory.

References:

[1] *https://arxiv.org/abs/1803.01572*

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