

ExtendableASGFEM

This package implements the stochastic Galerkin finite element method for certain two dimensional model problems involving KLE of stochastic coefficients. The rather huge systems have a tensorized structure and are solved by iterative solvers. A posteriori error estimators steer the spatial and stochastic refinement.

The spatial discretization is based on the finite element package [ExtendableFEM.jl](#) and [ExtendableFEMBase.jl](#)

References

- [1] "Adaptive stochastic Galerkin FEM"
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- [3] "Local equilibration error estimators for guaranteed error control in adaptive higher-order stochastic Galerkin finite element methods"
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