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A stochastic spectral finite element method for wave propagation analyses with medium uncertainties

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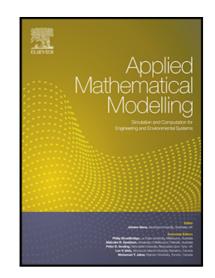
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Highlights

- Wave propagation in a medium with stochastic properties is studied.
- A stochastically enriched spectral finite element method (StSFEM) is applied.
- StSFEM accelerates temporal integration schemes and decreases numerical dispersion.
- It provides an efficient numerical solution for Fredholm equation of KL Expansion.
- The StSFEM is developed to large-scale stochastic wave propagation phenomena.

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