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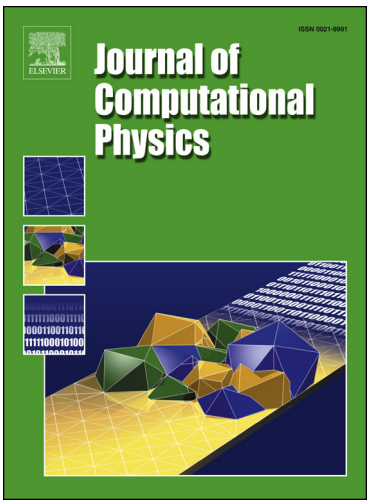

Convergence of nonlinear finite volume schemes for heterogeneous anisotropic diffusion on general meshes

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Highlights

- Mathematical convergence study of cell-centered nonlinear finite volume schemes for diffusion operators.
- Construction of a monotone nonlinear two-point flux approximation and an extremum- principles-preserving multi-point flux approximation satisfying a strong consistency assumption.
- Analysis of nonlinear schemes on highly complex grids, where negative coefficients occur in the conormal decomposition.
- Comparison of different schemes for heterogeneous anisotropic problems.