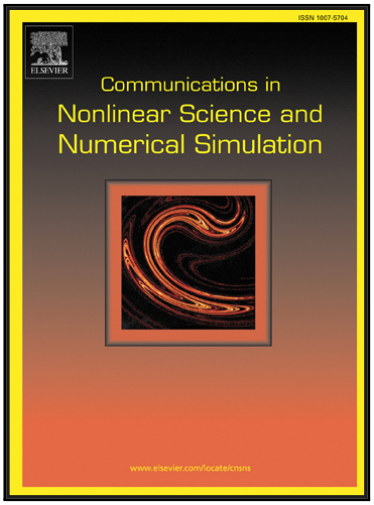

On Multilevel RBF Collocation to Solve Nonlinear PDEs Arising from Endogenous Stochastic Volatility Models

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Highlights

- We present an analytical and also a numerical study of a time-dependent second-order nonlinear partial differential equation (PDE) arising from the endogenous stochastic volatility model
- We introduce a Newton-based iteration scheme for nonlinear parabolic equations based on multilevel collocation using radial basis functions (RBFs)
- We show the effectiveness of the resulting framework by solving a prototypical example from the field