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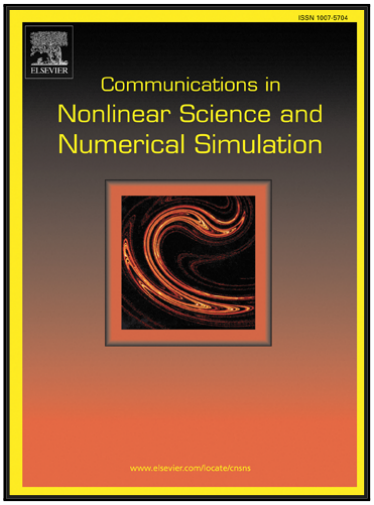

Simple diffusion can support the pitchfork, the flip bifurcations, and the chaos

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Highlights

- a discrete rational fration population model with the Dirichlet boundary conditions
- the necessary and sufficient conditions of uniqueness and existence of positive steady state solutions
- the pitchfork, the flip bifurcations, and the chaos
- the bifurcation diagrams and the largest Lyapunov exponent.

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