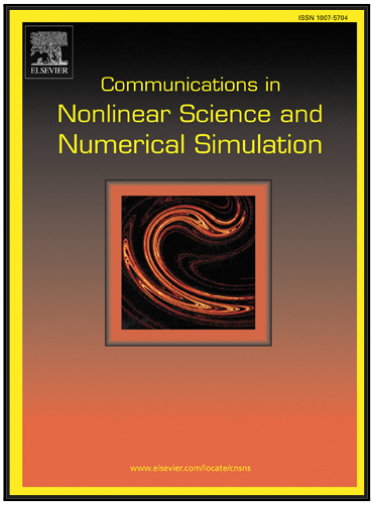

Individual-based optimal weight adaptation for heterogeneous epidemic spreading networks

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Highlights

- Epidemic spreading on heterogeneous complex networks with adaptive behavior is studied.
- Optimal control strategy based on the trade-off between weight adaptation and the global infection level in the network is proposed.
- The optimal control problem is addressed via rigorous mathematical analysis and numerical simulations.
- The existence of a solution to the optimal control problem is proved.
- Our results are useful for understanding the relationship between the epidemic spreading process, network topology, and individual adaptive behavior in heterogeneous complex networks.