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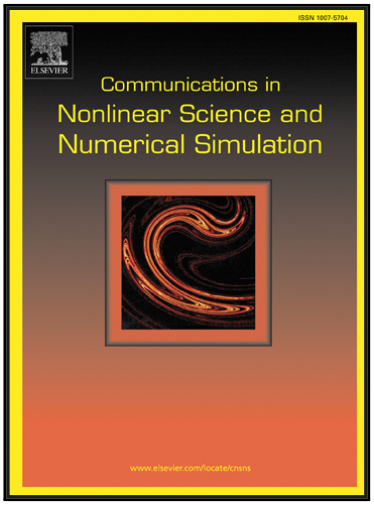

Global analysis of a delayed density dependent predator-prey model with Crowley-Martin functional response

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Highlights

- A delayed predator-prey system with Crowley-Martin functional response has been proposed and studied.
- The direction and stability of Hopf bifurcation have been investigated using normal form method and center manifold theory.
- Dynamical analysis reveals the fact that fluctuation in the population levels can be prevented under certain parametric conditions.
- Theoretical results obtained in the manuscript can be used in the study of delayed Crowley-Martin type predator-prey model system with prey reserve and harvesting policy.

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