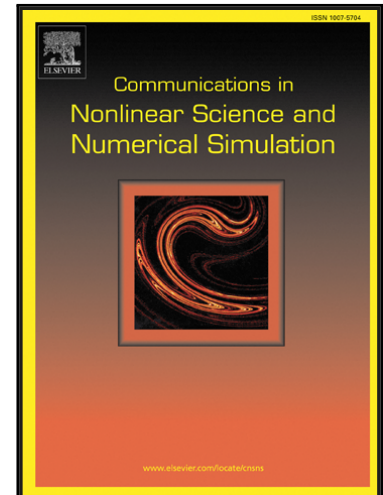


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Stochastic periodic solution of a non-autonomous toxic-producing phytoplankton allelopathy model with environmental fluctuation

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Highlights

- A non-autonomous toxic-producing phytoplankton allelopathy model with environmental fluctuation is considered.
- The existence of the global positive solution and the boundary periodic solution are obtained.
- The sufficient conditions for the existence of the positive stochastically periodic solution are derived.
- The allelopathic effect plays an important role in the existence of the stochastic periodic solution, for example it can lead to the decrease of the peaks of the cyclic outbreaks of the harmful algal blooms.

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