

# The evolution of periodic population systems under random environments

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**Abstract:** In this paper we study the behavior of trajectories of the Lotka-Volterra competition system with periodic coefficients under telegraph noise. We give sufficient conditions for the average permanence. Furthermore, we determine the  $\omega$ -limit sets of the system.

**Author Keywords:** Average permanence; Bistable; Competition; Lotka-Volterra equation; Telegraph noise

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