



Anisotropic Probabilistic Cellular Automaton for a Predator-Prey System

<http://www.firstlight.cn> 2007-06-30

We consider a probabilistic cellular automaton to analyze the stochastic dynamics of a predator-prey system. The local rules are Markovian and are based in the Lotka-Volterra model. The individuals of each species reside on the sites of a lattice and interact with an unsymmetrical neighborhood. We look for the effect of the space anisotropy in the characterization of the oscillations of the species population densities. Our study of the

probabilistic cellular automaton is based on simple and pair mean-field approximations and explicitly takes into account spatial anisotropy.

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