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N.College Ave., Claremont, CA 91711. *The Effect of Parametric Noise on Carrying Capacity.*

Dynamical systems arising from models of self-regulating growth often contain a stochastic component representing noise in the environment, or “parametric” noise. What is the effect of this noise on the long-term behavior of the system? How does this answer depend on the distribution of the random variable? In order that the question make sense, the system must have a well-defined long-term average, i.e. it must be ergodic. In this talk we prove ergodicity for a class of systems, and show that the randomness is beneficial to the system in the sense that the long-term average is increased by the presence of noise.

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