1134-37-274 **Ami Radunskaya*** (aer04747@pomona.edu), Department of Mathematics, Pomona College, 610 N. College Ave., Claremont, CA 91711. *Does noise help? Answers and more questions.*

Random fluctuations of an environment are common in ecological and economical settings. The processes describing the evolution of populations in these environments can often be described by a discrete, stochastic dynamical system, where a family of maps parametrized by a random variable forms the basis for a Markov Chain on a continuous state space. Random dynamical systems are a beautiful combination of deterministic and random processes, and they have received considerable interest since von Neumann and Ulam's seminal work in the 1940's. Key questions in the study of a stochastic dynamical system are: is there a unique, invariant measure? How does the long-term behavior compare to that of the state variable in a constant environment with the averaged parameter?

In this talk we answer these questions for a family of maps on the unit interval that model self-limiting growth. The techniques used can be extended to study other families of concave maps, and so we state several generalizations of our results as conjectures.

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