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Hai Dang Nguyen*, Department of Mathematics, The University of A, Box 870350, Tuscaloosa, AL 35487, and **Alex Hening**. *Persistence and extinction of stochastic Kolmogorov systems*.

We consider asymptotic behaviors of some interacting populations in a fluctuating environment, which are described by Kolmogorov systems with white noise (stochastic differential equations) By analyzing the dynamics of the solution near the boundary and by determining Lyapunov exponents with respect to invariant probability measures on the boundary, we obtain conditions for both persistence and extinction of species. The conditions are sharp in the sense that only critical cases remain unsolved. (Received January 28, 2019)