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Coexistence in random environments

We study the evolution of a community modelled by systems of stochastic differential equations with demographic noises, which exhibit coexistence dynamics only over finite periods. To capture such coexistence dynamics, we study the solution process before one species goes extinct and use quasi-stationary distributions (QSDs) to capture dynamical states governing the coexistence. In this talk, I will report some ideas and recent progress about dynamical properties of QSDs.