

Life-times and quasi-stationary distributions of some stochastic population processes

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We consider population-dependent branching process which is a kind of stochastic perturbation of the deterministic Ricker model in theoretical ecology. If the perturbation is small enough the branching process admits a quasi-stationary distribution which approximates the attractor of the deterministic model. In the case of an attracting fixed point, the branching process follows closely an autoregressive process of order 1. Using large deviations the expected life-time of the process may be calculated fairly explicitly.

List of invited speakers

Schedule for December 13