

Oberseminar Mathematische Stochastik

Mittwoch, 1. Juli 2015, 17:00 Uhr, M 6

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Persistence probabilities

Abstract:

Persistence concerns the behaviour of a stochastic process when it has an unusually long excursion. The first problem in this context is to compute the probability that the process stays below a boundary:

$$P(\sup_{s \leq T} X_s \leq 1), \text{ as } T \rightarrow \infty.$$

The talk will survey recent progress on this type of question and the relation to the behaviour of the exponential functional

$$E[(\int_0^t e^{X_s} ds)^{-1}].$$