SEMINAR ON STOCHASTICS Spring 2002

Exit Time, Principle Eigenvalue, and Small Deviation Probability

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Consider the first exit time τ_D of a smooth domain D by d-dimensional Brownian motion or symmetric stable processes. When D is unbounded, we provide an overview on the behavior of $P(\tau_D > t)$ as $t \to \infty$ and its various connections with principle eigenvalue and small deviation probability. The emphasis is on new ideas/tools and open problems.

Wednesday April 3; 4:10 p.m.-5:00 p.m.; LCB 222