学术报告

The stochastic heat equations: optimal lower bound on hitting probabilities and the probability density function of the supremum

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Venue： Room 111, Center for Applied Mathematics

Abstract： The main topic of this talk is the study of hitting probabilities for solutions to systems of stochastic heat equations. We establish an optimal lower bound on hitting probabilities in the non-Gaussian case, which is as sharp as that in the Gaussian case. This is achieved by a sharp Gaussian-type upper bound on the two-point probability density function of the solution. Motivated by the study of upper bounds on the hitting probabilities, we establish a smoothness property and a Gaussian-type upper bound for the probability density function of the supremum of the solution over a space-time rectangle touching the t = 0 axis. This talk is based on joint work with Robert C. Dalang.

欢迎大家参加！