COLLOQUIUM

Department of Statistics and Probability
Michigan State University

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Lecture 3: Large Deviations for translation invariant functionals of Brownian Occupation times

Thursday, April 2, 2015
Wells Hall, Room C405
10:20 a.m. - 11:10 a.m.

Abstract:

x(t) is Brownian motion in d dimensions and L_t is its occupation distribution

$$L_t(A) = \frac{1}{t}\int_0^t \chi_A(x(s))ds$$

$F(\mu)$ is a function that is translation invariant i.e

$$F(\mu * \delta_a) = F(\mu)$$

We are interested in the behavior of

$$\frac{1}{t}\log E[\exp[tF(L_t)]]$$

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