

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

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Limits of Markov Processes with Irregular Behavior at a fixed point

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10:20 a.m. - 11:10 am

Refreshments 10:00 am

C405 Wells Hall

Abstract

We study the limit behavior of a sequence of Markov processes (or Markov chains) whose distributions outside of any neighborhood of a "singular" point attract to some probability law. The behavior may be irregular in any neighborhood of this point.

As an example of the general result, we consider a symmetric random walk with the unit jump that is perturbed at a neighborhood of 0. The invariance principle is obtained under standard scaling of time and space. The limit process is a skew Brownian motion.

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