

# 概率论系列报告

报告题目 (Title) : The past and future of Brownian motion given  
the present with application to crossings

报告人 (Speaker) : Prof. Krishna B. Athreya  
Iowa State University

时间 (Time) : 4月28日(周一)下午 4:00-5:00

地点 (Venue) : 北京大学理科一号楼 1479

摘要 (Abstract) : Let  $B$  be standard Brownian motion. Suppose at time  $t$  it is known to be in  $(0,1)$ . Consider now the past and future of this process conditioned on this event. We show the two processes converge weakly. We use this to derive results on the last entrance time and the first exit time into and from  $(0,1)$ . We generalise this to SBM in  $\mathbb{R}^d$  and crossings from a bounded open set  $U$ . We extend the main result to Levy Processes and to null recurrent Markov chains.

欢迎参加