

北京师范大学 随机数学研究中心

学术报告

报告人: 宋健 教授 (山东大学)

题目: Hitting probability of Gaussian random fields and collision of eigenvalues of random matrices

时间: 2021年10月15日 (周五) 下午4:00-5:00

地点: 后主楼 1220

摘要: Let $X = \{X(t), t \in \mathbb{R}^N\}$ be a centered Gaussian random field with values in \mathbb{R}^d and let $F \in \mathbb{R}^d \setminus \{0\}$ be a Borel set. We provide a sufficient condition for F to be polar for X , i.e., $P(X(t) \in F \text{ for some } t \in \mathbb{R}^N) = 0$. By applying this condition, we solve a problem on the existence of collisions of the eigenvalues of random matrices with Gaussian random field entries in critical dimension that was left open in [Jaramillo-Nualart (2020)] and [Song-Xiao-Yuan (2021)]. This talk is based on joint works with Cheuk-Yin Lee, Yimin Xiao, and Wangjun Yuan.