



# 北京理工大学

## 数学与统计学院学术报告

### The Conformal Dimension and Minimality of Stochastic Objects

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**时间：**2024年10月28日 16:00——17:00

**地点：**文萃楼E1008

**摘要：** The conformal dimension of a metric space is the infimum of the Hausdorff dimension among all its quasimetric images. We develop tools related to the Fuglede modulus to study the conformal dimension of stochastic spaces. We first construct the Bedford-McMullen type sets, and show that Bedford-McMullen sets with uniform fibers are minimal for conformal dimension. We further develop this line of inquiry by proving that a "natural" stochastic object, the graph of the one dimensional Brownian motion, is almost surely minimal. If time permits, We will also explore further developments related to Schramm-Loewner evolution (SLE), conformal loop ensembles (CLE), and related questions motivated by an exploration of the renowned Sullivan dictionary.