



北京理工大学

数学与统计学院学术报告

Discrete approximation of Liouville Brownian motion

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摘要: Liouville Brownian motion was introduced as a canonical diffusion process under Liouville quantum gravity. It is constructed as a time change of 2-dimensional Brownian motion by the continuous additive functional associated with a Liouville measure, through a regularizing approximation procedure of the Gaussian free field. In this talk, we are concerned with the question whether one can construct Liouville Brownian motion directly from the Liouville measure. We will present a discrete approximation scheme that in fact works for any time-changed Brownian motion by a Revuz measure that has full quasi support. Based on joint work with Yang Yu.