Oberseminar Mathematische Stochastik

Mittwoch, 14. Juni 2017, 17:00 Uhr, SRZ 217

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Diffusion processes on branching Brownian motion

Abstract:
Branching Brownian motion (BBM) is a classical process in probability, describing a population of particles performing independent Brownian motion and branching according to a Galton Watson process. In this talk we present a one-dimensional diffusion process on BBM particles which is symmetric with respect to a certain random martingale measure. This process is obtained by a time-change of a standard Brownian motion in terms of the associated positive continuous additive functional. In a sense it may be regarded as an analogue of Liouville Brownian motion which has been recently constructed in the context of a Gaussian free field. This is joint work with Lisa Hartung.