Seminar/Talk

Hyperbolic branching Brownian motion

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Euclidean branching Brownian motion (BBM) has been intensively studied during many decades by renowned researchers. BBM on hyperbolic space has received less attention. A profound study of Lalley and Sellke (1997) provided insight on the recurrent, resp. transient regimes of BBM on the Poincare' disk. In particular, they determined the Hausdorff dimension of the limit set on the boundary circle in dependence on the fission rate of the branching particles. In the present notes, further features are exhibited. The rates of the maximal and minimal hyperbolic distances to the starting point are determined, as well as refined asymptotic estimates in the transient regime. The other main issues studied here concern the behaviour of the empiricial distributions of the branching population, as time goes to infinity, and their convergence to an infinitely supported random limit probability measure on the boundary.

Monday, December 16, 2024 05:00pm - 06:00pm
Central Bldg / O1 / Mondi 2a (I01.O1.008)

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