

Department of Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

Reconstructing random hyperbolic geometry

Mahan Mj

(TIFR, Mumbai)

Date: September 19, 2024

Time: 11 AM IST

Venue: AG66

Zoom link shall be shared separately



First passage percolation gives a well-known model of random geometry on a fixed background infinite graph. When we specialize to Cayley graphs of Gromov-hyperbolic groups G, random trees emerge naturally (joint work with Riddhipratim Basu). These trees leave a trace on the boundary \partial G of G in the form of an evolving random partition. It turns out that there is an inverse construction, where the random metric can be reconstructed (up to bounded errors) from the data of an evolving random partition on the boundary.

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