BROWNIAN MOTION ON $\mathbb{R}$ TREES

SIVA ATHREYA

The real trees form a class of metric spaces that extends the class of trees with edge lengths by allowing behavior such as infinite total edge length and vertices with infinite branching degree. We use Dirichlet form methods to construct Brownian motion on a given locally compact $\mathbb{R}$-tree equipped with a Radon measure. We then characterize recurrence versus transience.

This is joint work with Anita Winter and Michael Eckhoff.