

FROM SIMPLE WALKS TO BROWNIAN MOTION

A random walk in \mathbb{Z}^d is a random process consisting of steps from a point in an integer lattice to another point each with the same probability while Brownian Motion is a random, continuous, almost nowhere differentiable function. In this talk I will discuss simple walks in \mathbb{Z}^d , where $d \in \mathbb{N}$. Starting from a basic probability framework, I will explain how to get Brownian Motion via a limiting process.