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The Brownian web

The Brownian web can informally be described as coalescing one-dimensional Brownian motions, started from every point in space and time. Despite its apparent simplicity it has turned out to be a flexible tool in the study of various one-dimensional stochastic models. It has been studied to study the scaling limit of one dimensional voter models and Potts models, of certain measure-valued processes, and of a self-repelling random walk, to name a few examples. In my talk I will give a gentle introduction to the mathematical theory of the Brownian net and try to show at least a few of its applications.