

Oberseminar Mathematische Stochastik

Mittwoch, 25. Februar 2015, 17:00 Uhr, M 5

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Extra heads, invariant transports and the Skorokhod embedding problem

Abstract:

The extra head problem requires finding a head in an infinite sequence of independent fair coin tosses, without changing the distribution of the rest of the sequence. This problem was solved by Liggett (2001) by a nice matching procedure. Closely related allocation and matching problems for Poisson processes were studied by Holroyd and Peres (2005) and by Holroyd, Pemantle, Peres and Schramm (2008). In this talk we shall discuss matching and Skorokhod embedding problems for a two-sided standard Brownian motion. We will explain how all these matching problems are linked by the theory of invariant transports and Palm measures of stationary random measures.

Large parts of this talk are based on joint work with Peter Mörters (Bath) and Hermann Thorisson (Reykjavik).