Mixing rates and limit theorems for random intermittent maps

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Abstract

In this talk we present recent results on the statistical properties of random intermittent maps that share a common neutral fixed point. We illustrate how the constituent map that is fastest mixing dominates the asymptotic properties of the random map. We establish sharp estimates on the position of return time intervals for the quenched dynamics of the random system. This allows us to prove limit theorems (CLT, stables laws) in the probabilistic case, and to obtain correlation asymptotics in the infinite measure preserving case. This is a joint work with Chris Bose (Victoria, Canada).