

FINITE RANGE INTEGER LATTICE STICK PROCESS: MICROSCOPIC AND MACROSCO- PIC MODELS

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Resumo/Abstract:

We study the evolution of one configuration of sticks in the integer lattice. A stick piece goes to a near random site into a range $0 < R < \infty$ in each site with stick-length exponential rate. We prove that microscopical model is well defined in infinite lattice and is verified that i.i.d. exponential sticks is invariant for this dynamic. Symmetric and asymmetric macroscopic models are derived from this work. Our interest is to use these results to analyze the process fluctuations.