$S_t \circ c(h)(a_s)_{ti}c(s) + \mathfrak{S}_e m^i n(a_r)$ Department of Mathematics, University of Utah



Limit theorems for maximum flows on a lattice

Yu Zhang University of Colorado - Colorado Springs



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We independently assign a non-negative value, as a capacity for the quantity of flows per unit time, with a distribution F to each edge on the \mathbf{Z}^d lattice. We consider the maximum flows through the edges of two disjoint sets, that is from a source to a sink, in a large cube. We investigate that the ratio of the maximum flow and the size of source. It is conjectured by Kesten that the ratio is asymptotic to a constant denoted by the flow constant. In this talk, we show that the conjecture is true.