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Title: Intrinsic arm exponents of critical percolation on high-dimensional lattices

Abstract: Given the hypercubic lattice \mathbb{Z}^d , we can create random subgraphs by retaining each edge independently from each other with probability $0 < p < 1$ and deleting it otherwise. Percolation studies the behaviour of the remaining sub-lattice, and we will consider percolation for a specific "critical" probability. Gady Kozma and Asaf Nachmias have shown how one may calculate the respective one-arm exponent which approximates the probability that the remaining sub-lattice in critical percolation offers a shortest path of length $r > 0$. This talk is dedicated to present their results and extend them by calculating the multi-arm exponent which approximates the probability that in critical percolation on \mathbb{Z}^d , there are even n disjoint paths of length $r > 0$ starting close to the origin.