

Sublinearly Morse directions under first passage percolations

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In this talk we will discuss the behavior of sublinearly Morse directions under first passage percolations. First passage percolation in this context is a model of random perturbation of an infinite graph. Assuming only strict positivity and finite expectation of the random edge lengths, we prove that if the infinite graph has bounded degree, then almost surely, all sublinearly Morse directions are preserved. This in particular extends a previous result of Benjamini-Tessera on Morse directions. The talk is based on joint projects with Sagnik Jana.

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