概率论系列报告 Probability Seminar

报告题目(Title): Convergence of limit shapes for 2D near-critical first-passage percolation

报告人(Speaker): 姚昌龙 (中科院)

时间(Time): 2022/05/30 14:00-15:00

地点(Venue): Tencent meeting

摘要(Abstract): Consider Bernoulli first-passage percolation on the triangular lattice in which sites have 0 and 1 passage times with probability p and 1-p, respectively. First, I will discuss a result in the subcritical regime. Let B(p) be the limit shape in the classical shape theorem, and let L(p) be the correlation length. I will show that the re-scaled limit shape B(p)/L(p) converges to a Euclidean disk, as p tends to p_c from below. The proof relies on the renormalization argument, the scaling limit of near-critical percolation and the construction of the collection of continuum clusters. Then, I will review some recent results and problems in the critical and near-critical cases.



Everyone is welcome.