Probability Seminar

Title: The scaling limit of a critical random directed graph

Speaker: Christina Goldschmidt (Oxford)

Date: Wed 5th February 2020 at 2:00PM

Location: Seminar Room SCN 1.25

Abstract: We consider the random directed graph D(n, p) with vertex set 1, 2, . . . , n in which each of the n(n 1) possible directed edges is present independently with probability p. We are interested in the strongly connected components of this directed graph. A phase transition for the emergence of a giant strongly connected component is known to occur at p = 1/n, with critical window p = 1/n + $\lambda n^{-4/3} for \lambda \in$ $.We show that, within this critical window, the strongly connected components of D(n,p), ranked in decr$ $regular or loops. This is joint work with Robin Stephenson (Oxford).$

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