Hamilton Institute

Some Asymptotics for Random Graphs

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Abstract

Random graph G(n,p) is defined as an undirected graph on n vertices with the vertices being independently connected by edges with probability p. The random graph is said to be sparse if p=c/n, where c>0 and n is large. If c>1, then in the limit as n tends to infinity, with probability close to 1 there exists a connected component of G(n,c/n) of size on order n dubbed "giant component".

In this talk we discuss the asymptotics of large, moderate and normal deviations for the joint distribution of the size of the giant component and the number of components. Our approach is based on considering a stochastic process, which captures the partitioning of the graph into connected components.

Venue: Seminar Room, Hamilton Institute, Rye Hall
NUI Maynooth

Time: 1.00 - 2.00pm (followed by tea/coffee)

Travel directions are available at www.hamilton.ie

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