

Institut für Optimierung und Diskrete Mathematik

Vortrag im Seminar Diskrete Mathematik und Optimierung

Dienstag 29.9.2015, 14:15

Seminarraum C208, Steyrergasse 30, 2. Stock

Random planar graphs with n vertices and m edges

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Let $P_{n,m}$ denote a graph taken uniformly at random from the set of all labelled planar graphs with n vertices and $m(n)$ edges. We shall use counting arguments to explore the probability that $P_{n,m}$ has a component or subgraph isomorphic to H , for various fixed H , as $n \rightarrow \infty$. In particular, we will investigate exactly when the probabilities are bounded away from 0 and/or 1, showing that there is different behaviour depending on both the graph H and the ratio m/n .

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