



Subgraph statistics in subcritical graph classes

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In the last years, a lot of attention has been devoted to the study of random graphs from constrained classes. A prominent example of such families are the so-called subcritical graph classes, which covers, among others, trees, outerplanar graphs and series-parallel graphs. In this talk we study the following problem: given a fixed graph H , and a subcritical graph class G , how many copies of H (as subgraphs) are there in a uniformly at random graph of size n in G ? We show that in a general context such number follows a normal distribution. These results widely generalizes known different known results concerning the number of pending copies of a given subgraph [1]. As a case study, we get explicit constants for the important family of series-parallel graphs.

Referencias

- [1] C. McDiarmid: Random Graphs from a Weighted Minor-Closed Class, *The Electronic Journal of Combinatorics* **20** (2) (2013).

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