Counting bounded degree spanning trees in random graphs

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In this talk we discuss the number of bounded degree spanning trees in sparse random graphs. Let $p \geq \frac{f(n)}{n}$ where $f(n)$ is some polylogarithmic function of n, and let $G \sim G(n,p)$. We show that for every $\Delta = \omega\left(\frac{\ln(np)}{\ln\ln(np)}\right)$ the number of spanning trees in G with maximum degree at most Δ is w.h.p. exponentially equal to the expected number of such trees.

Joint work with Dennis Clemens, Asaf Ferber, Michael Krivelevich, Anita Liebenau and Kerstin Weller.

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