1146-05-227   **Abigail Raz*** (`ajr224@math.rutgers.edu`). *Upper tails for cycles.* Preliminary report.

Let X_H denote the number of copies of a fixed graph H in the random graph $G(n, p)$. The problem of determining the upper tail of X_H has been well-studied by combinatorialists and probabilists alike. We examine the case where H is an l-cycle, showing that $\Pr(X_H > (1 + \epsilon)\mathbb{E}[X_H]) < \exp[-C_{\epsilon,l} \min\{n^2 p^2 log(1/p), n^l p^l\}]$. (Received January 23, 2019)

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