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Ross K Berkowitz* (ross.berkowitz@yale.edu). *A Local Limit Theorem For Cliques.*

Let X denote the number of cliques of size r in $G(n, 1/2)$. How well can we understand the distribution of X ? A central limit theorem estimating the probability that X is in a large interval is a classic result. In this talk we will show that X is close pointwise to a discrete Gaussian random variable. We will also discuss in general how to estimate the probability that a low degree polynomial over $\{0, 1\}^n$ is in an interval of small size. (Received January 28, 2019)