Caroline Terry* (cterry3@uic.edu), University of Illinois at Chicago, Chicago, IL 60607. Some new logical zero-one laws.

Suppose $\mathcal{L}$ is a finite first-order language and for each integer $n$, suppose $F(n)$ is a set of $\mathcal{L}$-structures with underlying set $\{1, \ldots, n\}$. We say the family $F = \bigcup_{n \in \mathbb{N}} F(n)$ has a zero-one law if for every first order sentence $\phi$, the proportion of elements in $F(n)$ which satisfy $\phi$ goes to zero or one as $n \to \infty$. In this talk we give a brief overview of the history of zero-one laws, then present some new examples. This is joint work with Dhruv Mubayi. (Received October 08, 2015)