Mathematics, Statistics, and Computer Science **@ UIC**

Logic Seminar

Some new logical zero-one laws

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Abstract: 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 ϕ, the proportion of elements in $F(n)$ which satisfy ϕ goes to zero or one as $n \to \infty$. In this talk we give a brief overview of the history of this topic, then present some new examples of families with zero-one laws. This is joint work with Dhruv Mubayi.

Tuesday, October 13 at 4:00 PM in SEO 427