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

# Logic Seminar

## *The Tree property at successive cardinals*

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**Abstract:** The tree property is a reflection type combinatorial principle. It holds at $\omega$ (Konig's infinity lemma), fails at $\omega_1$ (Aronszajn) and can consistently hold at $\omega_2$ (Mitchell). More generally, it is a remnant of large cardinals, but can hold at successor cardinals. A long standing project in set theory is to try to obtain the tree property at every regular cardinal greater than $\omega_1$. We will start by introducing some classical results. Then I will discuss a recent result that assuming large cardinals, one can consistently get the tree property at the first and second successor of a singular strong limit cardinal.

Tuesday, September 29 at 4:00 PM in SEO 427