"The axiom of choice is obviously true, the well-ordering theorem is obviously false, and who can tell about Zorn's lemma?" –Jerry Bona
"The axiom of choice makes mathematicians uneasy. They prefer to use it in the Kuratowski-Zorn form... As they loathe constructions by transfinite recursion, they use this Kuratowski-Zorn axiom everywhere, often being forced to acrobatics." –Bruno Poizat

The Trivial Notions Seminar
Proudly Announces

How I Learned to Stop Worrying and Love Transfinite Induction

A talk by

Eric Wofsey

Abstract

Many mathematicians think of transfinite induction as some spooky incomprehensible unconstructive device frought with logical technicalities. In reality, ordinal numbers, much like puppies, are warm fuzzy cuddly creatures that make your dreams come true! In this talk I'll explain how transfinite induction works, why it's more natural than Zorn's lemma, and how you can use transfinite induction even if you don't like the axiom of choice. I'll also show how tranfinite induction can turn naive intuitions into rigorous proofs of the intermediate value theorem and related results.

Thursday, October 2nd at 2:07 pm
Science Center 507