

“Universal properties are what let you dream of objects in a category.”

— Emily Riehl

The Trivial Notions Seminar
Proudly Announces

A Different Type of Math

A talk by
Morgan Opie

Abstract

Homotopy type theory is an alternative foundation for mathematics in which the fundamental objects – “types” – are automatically reasoned with in a homotopy-invariant way. I’ll explain what this means, tell you about the mysterious and powerful univalence axiom, and indicate why type theory has implications for (higher) category theory. I’ll also talk a bit about the distinction between synthetic mathematics and “ordinary” mathematics: HoTT can be viewed as a “synthetic theory of spaces”. As time allows, I’ll introduce localization of spaces (in ordinary mathematics), and say something about a how to develop an analogous theory for types.

Friday, December 14th, at 1:00 pm
Science Center 530