

Talk Math 2 Me

(A mathematics seminar for students and by students)

Master's Student,

Austin Laine will speak on:

Ultra Products

Friday March 1, 2024

DERR 240

12:00pm-1:30pm

Abstract

In Mathematical logic, it is common to think of what structures satisfy theories of interest. Many of these models are considered to be 'standard' in the sense that it's the model originally intended for its theory. Ultra Products collect models together and take a "vote", only interpreting symbols in a way the majority of models can agree on. This creates a new potentially nonstandard model. Model theorists use this to produce new interpretation's of existing theories as well as to prove key results about the logics themselves that don't rely on syntax. In this talk we will go over how ultra products are made, discuss Los theorem for first order logic, and the construction of infinitesimals in nonstandard analysis.

For details about Talk Math 2 Me, email Ellen Couvillion (ebr21@txstate.edu) or visit:

