

LOGIC SEMINAR

Guest Speaker: Dana Bartošová
University of Florida

Date: Tuesday, February 13, 2024

Time: 2:00 PM

Location: 125 Hayes-Healy Bldg

Zoom URL: NA



Lecture Title:

Some news on ultraproducts of finite linear orders

Abstract

In our AIMSQuaRE project with Mirna Džamonja, Rehana Patel, and Lynn Scow, we are studying Ramsey properties of countable ultraproducts of finite structures. The most notable results are in the case of finite linear orders. Under CH, there is only one such infinite ultraproduct up to isomorphism. With respect to natural coordinate-wise colourings (so-called internal colourings), the ultraproduct has big Ramsey degrees 1 under CH, while with respect to arbitrary colourings we show that the big Ramsey property fails as badly as it possibly could. Without CH, the jungle of ultraproducts of finite linear orders is quite colourful. I will mention a few partial results in this direction from our group project with graduate students Jacob Kowalczyk and Justin Young, and undergraduate student Sebastian Rosas Ayala.