Department of Mathematics
University of Notre Dame
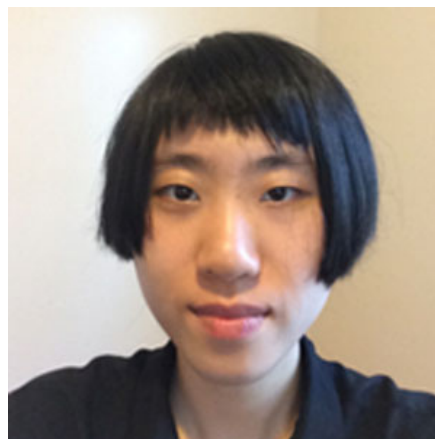
MODEL THEORY SEMINAR

Guest Speaker: Yayi Fu
University of Notre Dame

Date: Tuesday, April 18, 2023
Time: 10:30 AM
Location: 125 Hayes-Healy Hall
Zoom URL: NA

Lecture Title:

Generalization of coherence theorem on algebraically closed fields of characteristic zero, continued

Abstract

Bakker, Brunebarbe, Tsimerman showed that the definable structure sheaf $\mathcal{O}_{\mathbb{C}^n}$ of $\mathbb{C}^n$ is a coherent $\mathcal{O}_{\mathbb{C}^n}$-module as a sheaf on the site $\underline{\mathbb{C}^n}$, where the coverings are finite coverings by definable open sets. In general, let $\mathbb{K}$ be an algebraically closed field of characteristic zero. We give a more model theoretic proof of the coherence of $\mathcal{O}_{\mathbb{K}^n}$ as a sheaf of $\mathcal{O}_{\mathbb{K}^n}$-module on the site $\underline{\mathbb{K}^n}$ using spectral topology on the type space $S_n(\mathbb{K})$.

Yayi Fu - University of Notre Dame