

LOGIC SEMINAR

Guest Speaker: Peter Cholak
University of Notre Dame



Date: Tuesday, October 31, 2023

Time: 2:00 PM

Location: 125 Hayes-Healy Bldg

Zoom URL: NA

Lecture Title:

Some Computability Theoretic Aspects of Dobrinen's result that the universal triangle free graph has finite big Ramsey degree

Abstract

We will discuss recent work of Cholak, Dobrinen, and McCoy. Mostly we will focus on colorings within the universal triangle free graph of nodes, edges, and non edges. The result that the universal triangle free graph has finite big Ramsey degree implies for colorings of nodes, edges, or non edges there is a copy of the universal triangle free graph with a minimal number of colors. The minimum depends on the objects we are coloring, not the coloring itself. We will discuss this number for our 3 cases. A copy of the universal triangle free graph with a minimal number of colors is called a minimal heterogeneous copy. We will also discuss what is known about the computability theoretic complexity of these minimal heterogeneous copies.