

Department of Mathematics, Statistics and Computer Science

COLLOQUIUM

Logic and Degrees

Mariya Soskova

Department of Mathematical Logic and Applications
University of Wisconsin – Madison

3:30 PM, Thursday, April 6, 2017

Cudahy Hall, Room 401

Abstract

Some incomputable sets are more incomputable than others. We use Turing reducibility and enumeration reducibility to measure the relative complexity of incomputable sets. By identifying sets of the same complexity, we can associate to each reducibility a degree structure: the partial order of the Turing degrees and the partial order of the enumeration degrees. The two structures are related in nontrivial ways. The first has an isomorphic copy in the second and this isomorphic copy is an automorphism base. In 1969, Rogers asked a