Logic Seminar

UNIVERSITY OF NOTRE DAME
Department of Mathematics

Speaker: Adam Day
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Thursday, November 8, 2012
2:00 PM
125 Hayes-Healy Hall

Title: Interactions between random sets and computably enumerable sets

Abstract:

The computable enumerable (c.e.) sets are a fundamental object of study in computably theory. More recently, the 1-random sets have also been intensely studied. In this talk, we will investigate how these two types of sets interact, in particular we will look at which c.e. sets are computed by a 1-random set.

Central to this investigation will be the K-trivial sets. The K-trivial sets have been described as anti-random sets because under certain measures of randomness they are indistinguishable from the computable sets. We will outline a proof that a c.e. set is computable from an incomplete 1-random set (i.e. a 1-random set that does not compute the halting problem) if and only if the set is K-trivial.