

Speaker: Asher Kach
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Thursday, April 26, 2012
1:00 pm
125 Hayes-Healy Hall

Title: Computable Categoricity, Relative Δ_α^0 -Categoricity, and Index Sets

Abstract:

Though computable categoricity is perhaps a more natural notion than relative computable categoricity, it has long been known that computable categoricity is not as well-behaved. In this talk, we discuss reasons for this behavior and associated consequences. Amongst these consequences is the existence, for each computable ordinal α , of a computably categorical structure that is not relatively Δ_α^0 -categorical. As a corollary, the index set of the computably categorical structures is Π_1^1 -complete.

Of course, we will review the meaning of these terms and the history of their study, in addition to discussing these new results. This new work [in progress] is joint with Rod Downey, Steffen Lempp, Andy Lewis, Antonio Montalban, and Dan Turetsky.