ASSAF SHANI, Concordia University
Generic dichotomies for Borel homomorphisms for the finite Friedman-Stanley jumps

Abstract: The talk will begin by discussing the basic definitions and general goals behind the theory of Borel equivalence relations. We focus on the Friedman-Stanley jumps $=^{+n}$, for $n = 1, 2, ...$ and $n = \omega$. These Borel equivalence relations represent the notions of being classifiable using invariants which are countable sets of reals, countable sets of countable sets of reals, and so on.

We consider the problem of constructing a Borel reduction from $=^{+n}$ to some other equivalence relation. For $n = 1$ the situation is well understood and there are many such results. We present a new technique for finding such a reduction, when $n > 1$, based on Baire-category methods.