Logic Seminar

Classification by TSI Polish group actions

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Abstract: Two dynamical conditions for orbit equivalence relations will be introduced – the first providing an obstruction to classification by TSI Polish groups, and the second providing an obstruction to classification by non-Archimedean TSI Polish groups. A Polish group is TSI iff it has a compatible two-sided invariant metric. Following work of Hjorth and Drucker, we mimic the Scott analysis of countable structures to understand actions of general TSI Polish groups. Answering a question of Clemens and Coskey, these methods are used to show that the \( \mathbb{Z} \)-jump of \( E_0 \) is not classifiable by TSI Polish groups. Time permitting, we will show that if \( E \) is Borel-reducible to \( =^\oplus \) and also classifiable by a non-Archimedean TSI Polish group, then it is Borel-reducible to \( E_{\omega}^\omega \). Much of this work is joint with Aristotelis Panagiotopoulos.

Tuesday, September 1 at 2:00 PM in Zoom