Speaker: Andy Zucker

Title: A topological interpretation of Devlin's theorem

Abstract: Kechris, Pestov, and Todorcevic have provided a correspondence between Fraisse classes with nice Ramsey properties and the dynamical properties of the automorphism group. The Ramsey property they considered is more or less having objects of finite small Ramsey degree, where if K is a Fraisse structure, A is a finite substructure of K, and $c : Emb(A;K) \to r$ is a coloring of the embeddings of A into K, then we can find large finite substructures B of K with c having few colors on $Emb(A;B)$. In this talk, we consider Fraisse classes containing objects of finite big Ramsey degree. This strengthens the above notion by requiring B to be an infinite structure isomorphic to K. We will work towards providing a dynamical explanation of this combinatorial phenomenon by introducing the notion of a completion flow and asking the question: which topological groups admit a metrizable universal completion flow?