Dynamics, Ramsey Theory, and Model Theory

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The 2005 breakthrough paper by Kechris, Pestov, and Todorčević established a striking connection between Ramsey properties of classes of finitely generated first-order structures and dynamical behaviour of groups of automorphisms of countable first-order structures. I will explain this correspondence via Stone duality in the langage of Boolean algebras and notions standard in topological dynamics. I will then discuss recent work with Lynn Scow on a model-theoretic transfer of the Ramsey property from the class of finite substructures of one structure to another and ask the many questions that arise from it, most notably how to understand this transfer by dynamical and group topological means.