

Colloquium

University of Notre Dame
Department of Mathematics

Nicholas Ramsey - University of California Los Angeles

Speaker: Nicholas Ramsey

University of California Los Angeles

Will give a lecture entitled
Measures in Model Theory



Date: Tuesday, January 19, 2021

Time: 3:00 PM

Location: Zoom

Zoom URL: notredame.zoom.us/j/93862629493?pwd=L3dSaHRWdUNtK1ZjeU9sell1V3BYQT09

Abstract:

A Keisler measure on a structure, in the sense of model theory, is a finitely additive probability measure on sets definable in that structure. By restricting attention to the smaller, and often more structured, algebra of definable sets, the study of these measures gives important information about the algebraic, dynamical, and combinatorial properties of the structures themselves. Keisler measures arise naturally in the study of groups via the notion of definable amenability and in asymptotic combinatorics via nonstandard counting measures. We will survey the constructions and results that established Keisler measures as core objects of study in model theory, and then describe a cluster of new results that give a new understanding of these measures among structures that exhibit different forms of combinatorial complexity.