

Department of Mathematics

University of Houston

Analysis Seminar

FRIDAY, February 24, 2017

13:00-14:00 – Room 646 PGH

Speaker: Ken Dykema (Texas A&M University)

Title: Commuting operators in finite von Neumann algebras

Abstract: We find a joint spectral distribution measure for families of commuting elements of a finite von Neumann algebra. This generalizes the Brown measure for single operators. Furthermore, we find a lattice (based on Borel sets) consisting of hyperinvariant projections that decompose the spectral distribution measure. This leads to simultaneous upper triangularization results for commuting operators and behaves well with multivariate holomorphic functional calculus. (Joint work with Ian Charlesworth, Fedor Sukochev and Dmitriy Zanin.)