Speaker: Matthew Neal (Denison University)

Title: Order Theorems for Non Self-Adjoint Operator Algebras

Abstract: Recent work by Blecher, Read, and the speaker have established an effective order theory for non-self-adjoint operator algebras and Jordan operator algebras. Somewhat surprisingly, this program yields a comparison theory, Urysohn’s lemmas, and strong results about positive and completely positive projections on non-self-adjoint operator algebras and Jordan operator algebras. These results nontrivially generalize the corresponding classical theorems for C*-algebras. In this talk we will explain the basic order theory and results and then indicate difficulties and unsolved problems.