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Sub-Jordan Operator Tuples

Abstract

In this talk we will discuss tuples of 3-isometric and 3-symmetric operators. These operators have connections with Sturm-Liouville theory and are natural generalizations of self-adjoint and isometric operators. We call an operator J a Jordan operator of order 2 if $J = A + N$, where A is either unitary or self-adjoint, N is nilpotent of order 2, and A commutes with N. As shown in the work of Agler, Ball and Helton, and joint work with McCullough, 3-symmetric and 3-isometric operators are the restriction of a Jordan operator to an invariant subspace. In this talk we discuss the extension of these theorems to the multi-variable case and an application to disconjugacy for Schödinger operators.

Talk time: 07/18/2016 5:30PM— 07/18/2016 5:50PM
Talk location: Crow 206

Special Session: Multivariable operator theory. Organized by H. Woerdeman.