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Cimat

Radial Toeplitz operators on the weighted Bergman spaces of the Cartan domain $SU(n,n)/S(U(n) \times U(n))$

Abstract

We consider Toeplitz operators on Bergman spaces over the bounded symmetric domain $SU(n,n)/S(U(n) \times U(n))$. As a special case of a previous result, it was shown that Toeplitz operators with radial symbols (that is, symbols that are invariant under the action of $S(U(n) \times U(n))$) generate a commutative C^*-algebra. As a consequence, it is possible to simultaneously diagonalize all Toeplitz operators with radial symbols. We explicitly determine the simultaneous eigenspaces using the representation theory of U(n) and provide an integral formula for computing the eigenvalues of a Toeplitz operator with a given radial symbol. This is joint work with Raúl Quiroga.

Talk time: 07/19/2016 3:00PM— 07/19/2016 3:20PM
Talk location: Cupples I Room 215

Special Session: Toeplitz operators and related topics. Organized by S. Grudsky and N. Vasilevski.