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Representations of multiplier algebras of complete Pick spaces on the ball

Abstract

We study multiplier algebras of certain complete Pick spaces on the unit ball. Rather than focusing on function theory, we adopt a dilation theoretic point of view. Based on work of Agler and Ambrozie-Engliš-Müller, we show that every completely contractive representation can be co-extended to a $*$ -homomorphism of the associated Toeplitz-type algebra, and describe when these representations have the unique extension property. In the special case where we represent the multiplier algebra on another Hilbert function space, we reformulate results on functional models from Douglas-Misra-Sarkar and establish the equivalence of dilation, co-extension, and a simple positivity condition relating the two kernels. This is joint work with Michael Hartz.

Talk time: 07/19/2016 5:30PM— 07/19/2016 5:50PM
Talk location: Crow 206

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