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Commuting Toeplitz operators and representation theory

Abstract

An important pair of objects to study are given by the Bergman spaces on bounded symmetric domains and the Toeplitz operators on these spaces. It is well known that the bounded symmetric domains are closely related to the semisimple Lie groups of Hermitian type, the latter providing the biholomophisms of the former. Furthermore, this relationship goes as far as representation theory since the simple Lie groups of Hermitian type admit representations on the Bergman spaces that yield their holomorphic discrete series. We will explain how this interplay allows to obtain and understand large and nontrivial commutative C*-algebras generated by Toeplitz operators.

Talk time: 07/19/2016 2:30PM— 07/19/2016 2:50PM
Talk location: Cupples I Room 215

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