

Conjugations preserving Toeplitz kernels

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We study conjugations in $L^2(\mathbb{T})$ and their relation with kernels of Toeplitz operators on $H^2(\mathbb{T})$ space. Such kernels are a generalization of model spaces. We investigate properties of an inequality relation between two unimodular functions defined on the unit circle. This allows us to significantly strengthen previous theorems characterizing all M_z -commuting and M_z -conjugations leaving invariant model spaces to the Toeplitz kernels setting.

The talk is based on joint work with P. Dymek and A. Płaneta.