

1176-47-320

Maribel Loaiza* (mloaiza@math.cinvestav.mx), Av. Instituto Politécnico Nacional 2508, San Pedro Zacatenco, 07360 México, Mexico, and **Jesús Macías-Durán**. *On extensions of Toeplitz operators.*

It is well known that Toeplitz operators with radial symbols acting on the Bergman space (or the Fock space) are diagonal with respect to the standard basis of this space. Thus, there exists a natural correspondence between such operators and operators of multiplication acting on $\ell^2(\mathbb{Z}_+)$. If a Toeplitz operator (with radial symbol) is bounded, the resulting multiplication operator is unitarily equivalent to the original operator. However, if the domain of the Toeplitz operator does not contain each element of the basis we can not associate (unitarily) a multiplication operator acting on $\ell^2(\mathbb{Z}_+)$. There are some works that study the characteristics a symbol must hold in order to have a nice relation between the corresponding Toeplitz operator and an operator of multiplication. In order to consider a bigger class of symbols we use different extensions of Toeplitz operators and give conditions under which these extensions are unitarily equivalent to multiplication operators. (Received January 25, 2022)