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*Toeplitz operators, special symbols and moment maps*

Let us denote by  $\mathbb{P}^n(\mathbb{C})$  the  $n$ -dimensional complex projective space. Our setup considers the weighted Bergman spaces over  $\mathbb{P}^n(\mathbb{C})$  and their corresponding Toeplitz operators. Among the latter, we have special interest on those Toeplitz operators whose symbols are quasi-radial and quasi-homogeneous. Generally speaking, this means that, in a certain sense, the symbols depend only on the radial and spherical parts of subsets of the homogeneous coordinates. It turns out that such symbols, and thus their Toeplitz operators, can be related to the structure of toric manifold on  $\mathbb{P}^n(\mathbb{C})$ . We will describe such topological and geometric relationships.

This is joint work with M. A. Morales-Ramos and A. Sanchez-Nungaray.