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*On a group graded version of BGG*

A major result in Algebraic Geometry is the theorem of Bernstein–Gelfand–Gelfand that states the existence of an equivalence of triangulated categories:  $\underline{\text{gr}}_{\Lambda} \cong \mathcal{D}^b(\text{Coh } P^n)$ , where  $\underline{\text{gr}}_{\Lambda}$  denotes the stable category of finitely generated graded modules over the  $n+1$  exterior algebra and  $\mathcal{D}^b(\text{Coh } P^n)$  is the derived category of bounded complexes of coherent sheaves on projective space  $P^n$ .

Generalizations of this result were obtained in a paper by Martínez-Villa and Saorín and from a different point of view, the theorem has been extended by Yanagawa to  $\mathbb{Z}^n$ -graded modules over the polynomial algebra. This generalization has important applications in combinatorial commutative algebra.

The aim of the talk is to show how to extend the results to group graded algebras in order to obtain a generalization of Yanagawa's results having in mind the application to other settings.