1171-13-67 **Michael K. Brown*** (`mkb0096@auburn.edu`) and **Daniel Erman**. *Bounds on the shape of multigraded minimal free resolutions via exterior algebra methods.*

It is a well-known result of Eisenbud-Goto that a sufficiently high degree truncation of a module over a standard graded polynomial ring has a linear free resolution. In this talk, we discuss an analogous result over polynomial rings with non-standard gradings. Modules over such rings are of interest in algebraic geometry, as they determine sheaves on toric varieties. The proof involves noncommutative techniques, namely a toric generalization of Eisenbud-Fløystad-Schreyer's theory of Tate resolutions over exterior algebras. (Received August 07, 2021)