

1019-13-198

Luchezar Avramov, Srikanth Iyengar and Liana Segal* (segal@umkc.edu). *Generic modules over small algebras.*

We say that a standard graded algebra A is small if it has Hilbert series $H_A(t) = 1 + et + st^2$, with $s < e$. For a fixed Hilbert series, such algebras can be parametrized by a certain affine space. A result of Conca shows that generic small algebras are Koszul, in the sense that there exists an open subset of the affine space such that all algebras defined by elements in this set are Koszul. We define a notion of generic modules with Hilbert series $p + qt$. Under appropriate conditions on p, q , we study the question of whether a generic module over a generic small algebra has a linear resolution. (Received August 15, 2006)