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Luchozar L. Avramov* (avramov@math.unl.edu), Lincoln, NE 68588, and **Srikanth Iyengar** (iyengar@math.unl.edu), Lincoln, NE 68588. *Modules with prescribed cohomological support.*

Let Q be a commutative noetherian ring, f_1, \dots, f_c a Q -regular sequence, R the ring $Q/(f_1, \dots, f_c)$, and S a polynomial ring on c indeterminates of degree 2. For every R -module M there is a natural homomorphism of graded rings from S to the center of the Yoneda algebra $\text{Ext}_R^*(M, M)$. Gulliksen has shown that if M has finite projective dimension over Q , then $\text{Ext}_R^*(M, M)$ is finitely generated as an S -module. It will be proved that every homogeneous ideal of S is, up to radical, the annihilator of $\text{Ext}_R^*(M, M)$ for some finitely generated R -module M . (Received January 08, 2007)