

1047-13-399

Inês Bonacho dos Anjos Henriques* (ihenriques@math.unl.edu), Department of Mathematics, University of Nebraska-Lincoln, 203 Avery Hall, P.O. Box 880130, Lincoln, NE 68588, and **Liana M. Şega** (segal@umkc.edu), Department of Mathematics and Statistics, University of Missouri, Kansas City, MO 64110. *Koszul modules over short Gorenstein local rings.*

We identify a class of local rings (R, \mathfrak{m}) with $\mathfrak{m}^4 = 0$, exhibiting the Koszul-like property that $H_R(-t) P_M^R(t)$ is a polynomial in $\mathbb{Z}[t]$ for all finite R -modules M . This class includes generic graded Gorenstein algebras of socle degree 3. We show that minimal free resolutions of finite modules over such rings admit Koszul syzygy modules. (Received February 02, 2009)