1030-13-53 **Luchezar L Avramov** and **Srikanth B Iyengar*** (iyengar@math.unl.edu), 203 Avery Hall, University of Nebraska, Lincoln, NE 68588, and **Liana M Sega**. *Resolutions over short local rings.*

I will discuss joint work with Lucho Avramov and Liana Sega, concerning resolutions of modules over a generic local ring R, with maximal ideal $\mathfrak{m}$ and residue field k, such that $\mathfrak{m}^3 = 0$ and $\operatorname{rank}_k(\mathfrak{m}^2) < \operatorname{rank}_k(\mathfrak{m}/\mathfrak{m}^2)$. It is proved that every finitely generated module M has a Koszul syzygy module. Koszul modules are constructed, and the non-Koszul ones are classified when R is Gorenstein. Structure theorems are established for the cohomology algebra $\operatorname{Ext}_R(k,k)$ and its graded module $\operatorname{Ext}_R(M,k)$. (Received July 08, 2007)