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Liana M Sega* (segal@umkc.edu). *Vanishing of (co)homology over absolutely Koszul rings.*

An absolutely Koszul ring is a local ring with the property that every finitely generated module has a syzygy that is Koszul, in the sense that its associated graded module has a linear resolution. This property allows to shift vanishing of (co)homology to the associated graded objects. Recent work of the author in collaboration with I. Henriques shows that generic Gorenstein algebras with maximal ideal \mathfrak{m} satisfying $\mathfrak{m}^4 = 0$ are absolutely Koszul. I will show that such rings satisfy the Auslander-Reiten conjecture. (Received January 20, 2011)