1131-13-399 **Gabriel Sosa*** (gsosa@amherst.edu), **Amanda Croll**, **Roger Dellaca**, **Justin Hoffmeier**, **Anjan Gupta**, **Vivek Mukundan**, **Denise Rangel Tracy**, **Liana M Sega** and **Peder Thompson**. *Detecting Koszulness and related homological properties from the algebra structure of Koszul Homology.*

Let k be a field and R a standard graded k-algebra. We denote by H^R the homology algebra of the Koszul complex on a minimal set of generators of the irrelevant ideal of R. We discuss the relationship between the multiplicative structure of H^R and the property that R is a Koszul algebra. More generally, we work in the setting of local rings and we show that certain conditions on the multiplicative structure of Koszul homology imply strong homological properties. (Received July 18, 2017)