1057-13-407 Luchezar L Avramov, Inês B Henriques and Liana M Şega* (segal@umkc.edu).

Homological algebra modulo an exact zero divisor. Preliminary report.

An element a in a commutative local ring R is said to be an exact zero divisor if it satisfies $0 \neq R/aR \cong (0:_R a) \neq R$. We will study the behavior of some basic homological and structural invariants with respect to the change of rings $R \to R/aR$. (Received January 26, 2010)