1106-13-984 **Luchezar Avramov**, **Courtney Gibbons** and **Roger Wiegand*** (rwiegand1@unl.edu).

Koszul modules over short graded Gorenstein rings. Preliminary report.

Let k be a field and R a short, standard graded Gorenstein k-algebra. ("Short" means that $R = k \oplus R_1 \oplus R_2$.) When the embedding dimension $e := \dim_k R_1$ is three or more, R has wild representation type, but one can learn a lot about module structure by studying the semigroup of Betti diagrams of finitely generated R-modules. An important piece of the puzzle is the semigroup of Hilbert functions of Koszul modules. (These are the modules that are generated in degree zero and have linear resolutions.) In this talk I will describe this semigroup explicitly and say a little about its structure in semigroup-theoretic terms. (Received September 09, 2014)