1117-13-64 **Alexandra Seceleanu*** (aseceleanu@unl.edu). *The Waldschmidt constant for squarefree monomial ideals.*

The Waldschmidt constant is an asymptotic invariant associated to a homogeneous ideal. It measures the rate of growth of the initial degree of the symbolic powers of the given ideal. The study of Waldschmidt constants is motivated by geometric considerations, i.e. estimating the lowest degree of a hypersurface vanishing at all the points of a variety to a given order.

In this talk, we give several combinatorial interpretations for the Waldschmidt constant of a squarefree monomial ideals. While Waldschmidt constants are generally very difficult to compute, this will allow us to determine them completely in several important cases and to prove a useful general lower bound conjectured by Cooper-Embree- Hà-Hoefel. This is joint work with C. Bocci, S. Cooper, E. Guardo, B. Harbourne, M. Janssen, U. Nagel, A. Van Tuyl and T. Vu. (Received December 31, 2015)