1053-13-90 **Angela L Kohlhaas*** (akohlhaa@nd.edu), University of Notre Dame, 255 Hurley Hall, Notre Dame, IN 46556. *The core versus the adjoint of a monomial ideal.* Preliminary report.

Given an ideal I in a Noetherian ring R, the core of I is the intersection of all ideals contained in I with the same integral closure as I. The core naturally arises in the context of the Briançon-Skoda theorem as an ideal which contains the adjoint of a certain power of I. As the arbitrary-characteristic analog of the multiplier ideal, the adjoint is an important tool in the study of resolutions of singularities, and the question of when the core and the adjoint of a power of I are equal has been tied to a celebrated conjecture of Kawamata about the non-vanishing of sections of line bundles. By illustrating symmetry properties of the core of a monomial ideal in a polynomial ring, I will show that for certain classes of monomial ideals, this equality holds if and only if the core is integrally closed. (Received August 21, 2009)