1059-13-97   **Angela L Kohlhaas*** (`akohlhaa@nd.edu`), 1176 Center Pl, Dubuque, IA 52001. *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 February 18, 2010)