1030-13-242   **Lars Winther Christensen*** (`winther@ttu.edu`), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042, and **Sean Sather-Wagstaff** (`Sean.Sather-Wagstaff@ndsu.edu`). *Descent via Koszul extensions.* Preliminary report.

Let R be a commutative noetherian local ring with completion $\hat{R}$. The question "When is a finitely generated $\hat{R}$-module extended from R?" can be approached via Koszul extensions. Our technique generalizes a classical construction—used, for example, by Rotthaus to study descent of canonical modules via Artin approximations.

Applications go in several directions. One is extensions of the aforementioned work of Rotthaus as well as lifting results of Auslander, Ding, and Solberg. Another is a new version of P. Roberts' result on uniform annihilation of homology modules of perfect complexes. (Received August 04, 2007)