Meeting: 1006, Lubbock, Texas, SS 4A, Special Session on Homological Algebra and Its Applications

1006-13-206　　　　**Alex Martsinkovsky*** (`alexmart@neu.edu`), Mathematics Department, Northeastern University, 360 Huntington Ave., Boston, MA 02115. *On the Auslander-Buchsbaum - type formulas.*

We give a simple proof of the formulas of Auslander-Buchsbaum, Auslander-Bridger, and the fact that the syzygy modules of a finite module over a noetherian local ring do not have projective summands in degrees above the codepth. In addition, we show that a relative version of the Auslander-Bridger formula holds when certain subclasses of modules of G-dimension zero are chosen as relative projectives. (Received February 15, 2005)