

1107-13-36

**Janet Striuli\***, North Benson Rd, Fairfield, CT 06825, and **Ian Aberbach** and **Aline Hosry**.

*Uniform Artin Rees for free resolutions.*

Let  $(R, \mathfrak{m}, k)$  be a local noetherian ring. The classical Artin-Rees Lemma states that, given an ideal  $I$ , and modules  $N \subseteq M$ , there exists an integer such  $k$  such that  $I^n M \cap N \subseteq I^{n-k} N$  for all  $n \geq k$ . A uniform version of the lemma, where the integer does not depend on the ideal  $I$ , has been given by Huneke. In this talk we present a uniform Artin-Rees Lemma where the same integer  $k$  works for all ideals  $I$  and for all modules  $M_i \subseteq F_i$  where the  $M_i$  are the syzygies of a given free resolution and the  $F_i$  are the free modules appearing in the free resolution. (Received December 04, 2014)