1116-13-1138   **Ian Aberbach**, **Aline Hosry** and **Janet Striuli*** (`jstriuli@fairfield.edu`), North Benson, Fairfield, CT 06824. *Uniform Bounds of Artin-Rees type for free resolutions.*

Let (R, m) be a local noetherian ring of dimension d. Given a finitely generated R-module M we study a free resolution of M, which we denote by $(F_\bullet^M, \partial_i^M)$. We show that there exists a positive integer h such that $I^n F_i^M \cap Im(\partial_{i+1}^M) \subseteq I^{n-h} Im(\partial_{i+1}^M)$ for all $i \geq 0$, for all $n > h$, for all the ideals $I \subseteq R$ and for all modules that are d-th syzygies. The proof of this statement involves the definition of Koszul annihilator sequence which we will introduce for the talk. (Received September 17, 2015)

1