1015-13-230 **Janet Striuli*** (jstriuli2@math.unl.edu), Department of Mathematics, University of Nebraska, Lincoln, NE 68588-013. *Uniform Artin-Rees property for syzygies.* Preliminary report.

Let $(R, \mathbf{m}, \mathsf{k})$ be a local Noetherian ring, let M be a finitely generated R-module and let $I \subset R$ be an $\mathbf{m}$-primary ideal. Let $\mathbf{F} = \{F_i, \partial_i\}$ be a free resolution of M. In this paper we study the uniform Artin-Rees property $I^n F_i \cap \ker(\partial_i) \subset I^{n-h} \ker(\partial_i)$ with Artin-Rees exponent h that does not depend on i. We prove that any module over a one dimensional and two dimensional local Noetherian ring has this property. We relate this property to the property of having uniform annihilators for the family of modules $\{\operatorname{tor}_i^R(M, R/J^n)\}_{i,n}$ for some $\mathbf{m}$-primary ideals. (Received February 06, 2006)