1142-13-117 **Nicholas R Packauskas*** (packauskas@huskers.unl.edu), **Luchezar L Avramov** and **Mark E Walker**. *Quasi-polynomial growth of Betti numbers over local rings.* Preliminary report.

Let $Q$ be a regular local ring and $I$ an ideal generated by a regular sequence of $c$ elements in the square of the maximal ideal. It is known that over the complete intersection $R = Q/I$ that any finitely generated module $M$ has Betti numbers eventually given by quasi-polynomial of degree less than $c$. That is, there are integer-valued polynomial functions $p_+^M$ and $p_-^M$ with the same leading term such that $\beta_{2i}^R(M) = p_+^M(2i)$ and $\beta_{2i+1}^R(M) = p_-^M(2i+1)$ for $i$ sufficiently large. We will show that if $q$ is the height of the ideal generated by the quadratic initial forms of $I$ in the associated graded ring of $Q$, then the degree of $p_+^M - p_-^M$ is less than $c - q - 1$. (Received August 31, 2018)