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Packauskas. *Quasi-Polynomial Growth of Betti Sequences*.

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 March 02, 2020)