1019-13-93   **Daniel Katz*** (`dlk@math.ku.edu`), Department of Mathematics, University of Kansas, Lawrence, KS , and **Emanoil Theodorescu**. *On the degree of Hilbert polynomials associated to the torsion functor.*

Let $(R, \mathfrak{m})$ be a local ring and $I \subseteq R$ an ideal. A question of Kodiyalam asks whether for fixed $i > 0$, the polynomial giving the ith betti number of I^n has degree equal to the analytic spread of I minus one. Under mild condition on R, we show that the answer is positive in a number of cases, including when I is divisible by $\mathfrak{m}$ or I is an integrally closed $\mathfrak{m}$-primary ideal. (Received August 09, 2006)