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29210. *Socle degrees, Resolutions, and Frobenius powers.*

Let  $(R, \mathfrak{m})$  be a Noetherian graded algebra over a field of positive characteristic  $p$ , with maximal homogeneous ideal  $\mathfrak{m}$ ,  $J$  be an  $\mathfrak{m}$ -primary homogeneous ideal in  $R$ , and  $q = p^e$ . We have observed that, sometimes, if the socle degrees of  $R/J^{[q]}$  and  $R/J$  are related “correctly”, then the resolutions of  $R/J^{[q]}$  and  $R/J$  share the same tail. This work has been carried out with Adela Vraciu, Bernd Ulrich, and Hamid Rahmati. (Received January 27, 2009)