

1142-13-96

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*G-regularity of rings of embedding codepth 3.*

A local ring of embedding codepth 3 is up to completion a quotient of a regular local ring  $Q$  by an ideal  $I$  of grade 3. These rings have been classified based on the algebra structure of  $\mathrm{Tor}_*^Q(Q/I, k)$ , where  $k$  is the residue class field of  $Q$ . It is known that every Poincaré series of a finitely generated module over such a ring can be expressed as a rational function with denominator depending only of the ring. These denominators have been explicitly calculated by L. Avramov. We take advantage of these calculations to prove that all non-Gorenstein local rings of embedding codepth 3 are either embedded deformations or G-regular. (Received August 30, 2018)