

1056-13-1830

Jared L Painter* (jlpainter@uta.edu), Department of Mathematics, University of Texas at Arlington, Arlington, TX 76019. *Comparing the Sizes of the Lower Bass Numbers of a Cohen Macaulay Local Ring*. Preliminary report.

Let (R, m, k) be a local ring. The i th Bass number of R is the number of copies of the injective envelope of k in the i th injective module of a minimal injective resolution of R . In this talk we investigate the question of whether the first Bass number of a zero dimensional ring is always larger than the zeroth. In particular we look at zero dimensional rings defined by monomial ideals and show that the answer to the question is true for a large class of such rings. (Received September 22, 2009)