

1053-13-178

Bart E. Snapp* (snapp@math.ohio-state.edu), Department of Mathematics, 100 Math Tower, 231 West 18th Avenue, Columbus, OH 43210. *A criterion for a ring to be Cohen-Macaulay and the canonical element conjecture.*

In the 1980's, Dutta gave a criterion for a local ring to be regular based on whether a syzygy of the residue field had a free summand. Recently, we gave a similar criterion for a ring to be Cohen-Macaulay; however, the proof was quite different. In this talk we will present a unified approach to both criteria. Additionally, we will discuss the connection of such criteria to the canonical element conjecture. (Received September 02, 2009)