

1035-13-1512

Luchezar L Avramov (avramov@math.unl.edu), 203 Avery Hall, University of Nebraska - Lincoln, Lincoln, NE 68516, and **W. Frank Moore*** (fmoore@math.unl.edu), 203 Avery Hall, University of Nebraska - Lincoln, Lincoln, NE 68516. *Cohomology of connected sums of artinian Gorenstein rings*. Preliminary report.

Let S and T be artinian Gorenstein local rings with common residue field k . The connected sum $S\#T$ is the quotient of the fiber product $S \times_k T$ by the difference of the two socle elements; it is Gorenstein. We describe of the Koszul homology algebra $H(K^{S\#T})$ in terms of the Koszul homology algebras of S and T , and explore the Yoneda Ext algebra of $S\#T$. (Received September 20, 2007)