1057-13-442 **Giulio Caviglia*** (gcavigli@math.purdue.edu), 150 N. University st., Mathematics Department, Purdue University, West Lafayette, 47907. *A class of Gorenstein algebras that are Koszul.*

It is known, by a result of Vishik and Finkelberg, that the coordinate ring of a smooth curve in its canonical embedding is Koszul whenever it is defined by quadratic relations. Such rings are Gorestein with an h-vector of the form $1+nz+nz^2+z^3$. Conca, Rossi, and Valla proved that quadratic Gorenstein rings with the above h-vector are always Koszul whenever n=3, n=4 or when the ring is defined by a generic cubic in the sense of Macaulay's inverse system. We present some sufficient conditions for the koszulness of these rings which extend the above result to the case n=5. Our methods are based on the construction of a koszul filtration by analizing the rank of the multiplication of certain linear forms. (Received January 26, 2010)