Meeting: 998, Houston, Texas, SS 21A, Special Session on Homological Algebra of Commutative Rings

998-13-245 **Oana Veliche*** (oveliche@math.purdue.edu), Department of Mathematics, Purdue University, 150 N. University Street, West Lafayette, IN 47906, and **Luchezar L. Avramov** (avramov@math.unl.edu). *Products in Tate-Vogel cohomology over Gorenstein local rings.*

When R is a commutative noetherian local ring with residue field k the graded k-algebra $\operatorname{Ext}_R(k,k)$ has been the subject of many investigations. On the other hand, little is known about products in the Tate-Vogel cohomology algebra k-algebra $\widehat{\operatorname{Ext}}_R(k,k)$, outside of Martsinkovsky's result that the canonical homomorphism of graded algebra from $\operatorname{Ext}_R(k,k)$ is injective. We shall discuss conjectures and results on the structure of the k-algebra $\widehat{\operatorname{Ext}}_R(k,k)$, assuming that the ring R is Gorenstein. This is joint work with Luchezar Avramov. (Received February , 2004)