Meeting: 1006, Lubbock, Texas, SS 4A, Special Session on Homological Algebra and Its Applications

1006-13-243 **Oana Veliche*** (`oveliche@math.utah.edu`), 155 South 1400 East, Room 233, Salt Lake City, UT 84112, and **Luchezar L. Avramov** (`avramov@math.unl.edu`). *Stable cohomology for local rings.* Preliminary report.

It will be shown that the stable cohomology (also called Tate-Vogel cohomology) of the residue field of a local ring reflects significant properties of the ring. It carries a multiplicative structure, which will be determined for some Gorenstein rings (in particular, over all complete intersection rings) and also for some non-Gorenstein rings, where it exhibits a completely different behavior. (Received February 15, 2005)