

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

998-13-257            **Luhezar L. Avramov, Srikanth Iyengar and Claudia Miller\*** (cmille06@syr.edu).

*Extremal algebras.*

This talk is on joint work with L. Avramov and S. Iyengar concerning ring homomorphisms  $R \rightarrow S$  that provide  $S$  with an  $R$ -module structure that has an extremal resolution. The ur-example is the Frobenius homomorphism in characteristic  $p > 0$ , but there are many others.

In particular, we get an example of a surprising phenomenon: that the  $R$ -module structure of  $S$  can actually give information about the rings  $R$  and  $S$ . (Received February 29, 2004)