

**Meeting:** 999, Nashville, Tennessee, SS 6A, Special Session on Local and Homological Algebra

999-13-175            **L. L. Avramov, S. Iyengar** and **C Miller\*** (cmille06@syr.edu). *Extremal Algebras*.

I will speak on joint work 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 August 22, 2004)