

Meeting: 998, Houston, Texas, AVAROV, Invited Address

998-13-1 **Luchozar L. Avamrov***, University of Nebraska, Lincoln, NE 68588. *Homomorphisms of commutative rings.*

A homomorphism $\varphi: R \rightarrow S$ of commutative noetherian rings is an algebraic model for a morphism of algebraic varieties. It is therefore important to know conditions on φ that would guarantee desirable properties of one of the rings to be shared by the other. Such conditions often take the form of homological hypotheses on the R -module structure of S . The talk will describe progress in understanding the local structure of homomorphisms, which is partly based on and is closely linked to new developments in module theory. (Received August 12, 2003)