1031-13-21   **Sarah Glaz*** (`glaz@math.uconn.edu`), Department of Mathematics, University of Connecticut, Storrs, CT 06269. *Homological Characteriazations of Gaussian Properties of Rings.* Preliminary report.

In a recent investigation, jointly with Silvana Bazzoni, we considered several Gaussian properties of rings. Two features stood out throughout the investigation. First: the relations among the various Gaussian properties of a ring depend heavily on the Gaussian properties of the total rings of quotients involved. Second: these properties can best be investigated through the clarification of the weak global dimensions, and the finitistic projective dimensions of the rings involved. In this talk we will discuss several results, examples, and conjectures, highlighting these two features of our ongoing investigation into the nature of Gaussian properties. (Received July 11, 2007)