

1100-18-191      **Denise Amanda Rangel\*** ([denise.rangel@mavs.uta.edu](mailto:denise.rangel@mavs.uta.edu)), Department of Mathematics, 411 S  
Nedderman Dr, Arlington, TX 76019. *A Description of the Isomorphism Classes of Totally  
Reflexive Modules Over a Specific Ring*. Preliminary report.

Totally reflexive modules over a non-Gorenstein ring are an analog to maximal Cohen-Macaulay modules over a Gorenstein ring. It is known that the category of totally reflexive modules over a non-Gorenstein ring is either trivial (consisting only of free modules) or is infinite. When it is infinite it is quite often of wild representation type. In this talk we will investigate this nontrivial category over the ring  $k[x, y, z]/(x^2, y^2, z^2, yz)$ . Through work of Avramov and Eisenbud we will show that the isomorphism classes of totally reflexive modules are in bijection with the conjugacy classes of certain square matrices. (Received February 07, 2014)