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**Denise Rangel Tracy\*** ([drangeltracy01@manhattan.edu](mailto:drangeltracy01@manhattan.edu)). *Examples of non-trivial totally reflexive modules over local non-Gorenstein rings.* 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 projective modules) or is infinite, when it is infinite it is of wild representation type. For this talk we are interesting in finding explicit examples of such modules. A large portion of examples of nontrivial totally reflexive modules are due to Yoshino's results concerning local rings where the cubic of the maximal ideal is zero or are tied to the existence of exact zero pairs. We will discuss using these two method to construct other nontrivial totally reflexive modules over local rings not fitting Yoshino's description. (Received September 13, 2016)