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Lubbock, TX 79409, and **Janet Striuli and Roger Wiegand**. *Constructing totally reflexive
modules*. Preliminary report.

Let R be a commutative local noetherian ring. A finitely generated R -module M is called totally reflexive if it is reflexive and $\text{Ext}_R^i(M, R) = \text{Ext}_R^i(M^*, R) = 0$ for all $i > 0$. It is known that if a non-Gorenstein ring R admits a non-free totally reflexive module then there exist infinitely many, pairwise non-isomorphic, indecomposable totally reflexive R -modules. We show, in certain cases, how to construct an infinite family of indecomposable totally reflexive modules given that a cyclic one exists. (Received February 23, 2010)