1117-13-469   **J Cameron Atkins*** (`atkinsj6@email.sc.edu`) and **Adela Vraciu** (`vraciu@math.sc.edu`).
        Existence of Totally Reflexive Modules.

We prove that for a standard graded Cohen-Macaulay ring R, if the quotient $R/(\underline{x})$ admits non-free totally reflexive modules, where $\underline{x}$ is a system of parameters consisting of elements of degree one, then so does the ring R. As an application, we consider the question of which Stanley-Reisner rings of graphs admit non-free totally reflexive modules. (Received January 19, 2016)