1125-16-2253 **Bradley S. McQuaig*** (bsm0012@auburn.edu), Auburn University, Department of Mathematics and Statistics, 221 Parker Hall, Auburn, AL 36849. *Strongly Non-Singular Rings, Morita-Equivalence, and the Maximal Ring of Quotients.*

In 2005, Albrecht, Dauns, and Fuchs classified rings for which the classes of torsion-free and non-singular right R-modules coincide. Here, a right R-module M is *torsion-free* if $Tor_1^R(M, R/Rr) = 0$ for every $r \in R$, and a right R-module M is *non-singular* if xI is nonzero for every nonzero $x \in M$ and every essential right ideal I of R. We extend this to classify the rings R for which the classes of torsion-free and non-singular right S-modules coincide for every ring S Morita-equivalent to R. We then look to characterize rings whose $n \times n$ matrix rings are Baer-rings. A ring is *Baer* if every right (or left) annihilator ideal is generated by an idempotent. Central to these discussions is the maximal ring of quotients, and we consider relevant results and examples. (Received September 20, 2016)