1086-68-404   **JM Landberg*** (`jml@math.tamu.edu`), Department of Mathematics, Texas A&M University, Mailstop 3368, College Station, TX 77843-3368. *On the complexity of matrix multiplication.*

I will discuss new lower bounds for the rank and border rank of matrix multiplication and the relationship of the study to representation theory and classical objects in algebraic geometry such as Darboux hypersurfaces. (Received August 29, 2012)