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Austin Conner*, connerad@math.tamu.edu, and **Fulvio Gesmundo, Joseph M. Landsberg**
and **Emanuele Ventura**. *Kronecker powers of tensors and the complexity of matrix
multiplication.*

Determining the complexity of matrix multiplication has been a central problem ever since Strassen showed in 1968 that the usual algorithm for matrix multiplication is not optimal. Efforts to obtain better algorithms have essentially stalled since the work of Coppersmith and Winograd in 1989. I will present both positive and negative results with regard to ways forward on the question of upper bounds on the complexity of matrix multiplication. (Received January 20, 2020)