999-15-256 **Steven Dale Cutkosky** (`cutkoskys@missouri.edu`), University of Missouri, Columbia, MO 65211, and **Hema Srinivasan*** (`hema@math.missouri.edu`), University of Missouri, Columbia, MO 65211. *Factorization of Matrices and Birational Maps.*

We translate a problem in birational geometry to linear algebra and use algebraic methods to solve the problem. Local factorization of monomial maps has been recently completed by Karu using techniques of toric geometry. We give an explicit algorithm using only linear algebra to solove this problem. (Received August 24, 2004)