1124-62-331   **Lek-Heng Lim** (`lekheng@galton.uchicago.edu`) and **Jose Israel Rodriguez***
(`joisro@uchicago.edu`). *Introducing the GMM degree.*

In econometrics, the generalized method of moments (GMM) combines data with population moment conditions to estimate the unknown population parameters. For Pearson's classic method of moments, one determines the common root(s) of n nonlinear polynomials, called cost functions, where n is the number of population parameters. In GMM, one can have more cost functions than population parameters. To account for this, the common root condition is replaced by minimizing a positive definite quadratic form of cost functions. The quadratic form may have multiple local minima. However, the number of local minima of the quadratic form is bounded above by the GMM degree, a generalization of maximum likelihood and method of moments degree. (Received September 12, 2016)