Title: **The 70th Anniversary of the Distribution of Random Matrices: A Survey**

Author(s): **Ingram Olkin**

Technical Report number (Dept. of Statistics, Stanford Univ.): **2000-06**

Date: **February 2000**

Abstract:

Although distribution theory dates back over a century, the distributions were essentially univariate. The distribution of the sample covariance matrix was perhaps the beginning of a theory of distributions of random matrices. When the underlying distribution is multivariate normal, the distribution of the sample covariance matrix is the Wishart distribution. We here provide a review of the distribution of a variety of matrices as they derive from matrix factorizations.