

A Weak Law of Large Numbers for the Sample Covariance Matrix

Steven J. Sepanski, *Saginaw Valley State University*
Zhidong Pan, *Saginaw Valley State University*

Abstract

In this article we consider the sample covariance matrix formed from a sequence of independent and identically distributed random vectors from the generalized domain of attraction of the multivariate normal law. We show that this sample covariance matrix, appropriately normalized by a nonrandom sequence of linear operators, converges in probability to the identity matrix.

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