Robustness in the multivariate Gaussian distribution

Charles A. Rohde

Johns Hopkins University, Baltimore, USA

Abstract

In this paper the methods developed by Magnus [1] are used to derive robust estimators of the variance of the estimated covariance matrix in a multivariate Gaussian distribution. In addition the profile likelihood for the correlation coefficient and partial correlation coefficients are derived. Using the methods developed by Royall and Tsou [2] robust versions of these likelihoods are developed.

Keywords

Robustness, multivariate Gaussian distribution, profile likelihood.

References

