Kano, Yutaka

Summary: This paper presents the asymptotic distribution of M. Ihara and Y. Kano’s [Psychometrika 51, 563-566 (1986; Zbl 0653.62047)] noniterative estimator of the uniqueness in exploratory factor analysis. When the number of factors is overestimated, the estimator is not a continuous function of the sample covariance matrix and its asymptotic distribution is not normal, but the consistency holds. It is also shown that the first-order moment of the asymptotic distribution does not exist.

MSC:
62H25 Factor analysis and principal components; correspondence analysis
62E20 Asymptotic distribution theory in statistics

Keywords:
Anderson and Rubin’s condition; Bartlett decomposition; multivariate t- distribution; Wishart distribution; exploratory factor analysis; sample covariance matrix; consistency; first-order moment

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