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A MODIFIED LIKELIHOOD RATIO TEST FOR A MEAN VECTOR WITH MONOTONE MISSING DATA

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Abstract

In this study, we consider the likelihood ratio test (LRT) for a normal mean vector when the data have a monotone pattern of missing observations. We derive modified likelihood ratio test (MLRT) statistic by using decomposition of the likelihood ratio (LR). Further, we investigate the accuracy of the upper percentiles of this test statistic by Monte Carlo simulation.

Keywords: asymptotic expansion, maximum likelihood estimator, Monte Carlo simulation.

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