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Measures of Multivariate Skewness and Kurtosis with Principle Components

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Abstract

This paper is concerned with comparison of two types of multivariate sample skewness and kurtosis, which are Mardia-type and Srivastava-type, respectively. Asymptotic expansions under non-normality are obtained for the sample measures of Srivastava-type in order to consider their asymptotic behaviors.

Key words: asymptotic expansion, moment, non-normality.

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