# Some remarks on tests of multivariate normality based on measures of shape

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**Abstract**

There are many tests of multivariate normality and rules for the construction of their statistics. Usually, five basic classes are mentioned. This division results from the way the test statistics are constructed. There are tests based on: randomization rule, measures of shape, union rule and Roy's intersection, multivariate geometry notions, variable transformation. The multivariate measures of shape are useful as statistics carrying some characteristic of the multivariate sample and as a basis for tests of multivariate normality. In the paper an investigation of some tests of multivariate normality based on the measures of skewness and kurtosis is presented.

**Keywords:** multivariate normality, statistical test, measure of shape, skewness, kurtosis.