mvtest — Multivariate tests

Description

mvtest performs multivariate tests on means, covariances, and correlations and tests of univariate, bivariate, and multivariate normality. The tests of means, covariances, and correlations assume multivariate normality (Mardia, Kent, and Bibby 1979). Both one-sample and multiple-sample tests are provided. All multiple-sample tests provided by mvtest assume independent samples.

Structural equation modeling provides a more general framework for estimating means, covariances, and correlations and testing for differences across groups; see [SEM] Intro 5 and [SEM] Example 16.

Syntax

mvtest subcommand ... [, ...]

<table>
<thead>
<tr>
<th>subcommand</th>
<th>Description</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>means</td>
<td>test means</td>
<td>[MV] mvtest means</td>
</tr>
<tr>
<td>covariances</td>
<td>test covariances</td>
<td>[MV] mvtest covariances</td>
</tr>
<tr>
<td>correlations</td>
<td>test correlations</td>
<td>[MV] mvtest correlations</td>
</tr>
<tr>
<td>normality</td>
<td>test multivariate normality</td>
<td>[MV] mvtest normality</td>
</tr>
</tbody>
</table>

References


James, G. S. 1954. Tests of linear hypotheses in univariate and multivariate analysis when the ratios of the population variances are unknown. Biometrika 41: 19–43.


**Also see**

[MV] **canon** — Canonical correlations

[MV] **hotelling** — Hotelling’s T-squared generalized means test

[MV] **manova** — Multivariate analysis of variance and covariance

[R] **correlate** — Correlations of variables

[R] **mean** — Estimate means

[R] **sdtest** — Variance-comparison tests

[R] **sktest** — Skewness and kurtosis tests for normality

[R] **swilk** — Shapiro–Wilk and Shapiro–Francia tests for normality

[R] **ttest** — t tests (mean-comparison tests)

[SEM] **Intro 5** — Tour of models

[SEM] **Example 16** — Correlation