

# Model choice and testing in multivariate longitudinal models

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## Abstract

Longitudinal models are widely used in many biomedical applications. The change of the mean of the response over time is modeled often by a two-stage model, which results in a mixed (linear) model. The dependences of observations over time are modeled by covariance matrix which has an assumed structure. The choice of the structure influences the behavior of test statistics for fixed effects. Here we investigate the influence of model choice criteria and behavior of approximate tests in a multivariate longitudinal setting.

## Keywords

Multivariate longitudinal model, Fixed effects, Model choice criteria.