Problems of inference in a special multivariate linear model

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Abstract

Simplified variance structures in multivariate linear models can substantially reduce number of 2nd order parameters, and thus required number of observations for a valid inference. At the same time, such structures are in many cases reasonable, because they are implied by the design of experiments. However, to take them into account is not an easy task. We will show some statistics for basic location testing in models with such a simplified parameter structure, especially multivariate repeated measures data model. The performance of several test will be compared. Methods will be demonstrated on real medical datasets.

Keywords

Multivariate linear model, Location test, Special variance structure.

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