Estimation, testing and residual analysis in the GMANOVA-MANOVA model

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Abstract

In this talk we will consider the GMANOVA-MANOVA model, which is a special case of an extended growth curve model, with no assumption of the nested subspace condition. We derive two types of residual, establish their properties and give interpretations. We also discuss their use in bilinear hypothesis testing for the MANOVA model. Finally, a small simulation study is performed to validate the theoretical results and a numerical example on a real data set from a study that was conducted to investigate two treatments for patients suffering from multiple sclerosis is given.

Keywords

GMANOVA-MANOVA, growth curve model, residual analysis