Special Session on Matrix Methods in Linear Models

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Abstract

Linear models are everywhere in data analysis. In spite of the availability of highly innovative tools in statistics, the linear models are still widely studied by statisticians. Even the most effective multivariate models appear to be the linear ones. To describe these models it is most efficient with matrix algebra, it is the language of modern analysis. Also the study of various concepts would be tedious without matrix algebra.

This special session will be devoted to estimation and testing problems in multivariate and mixed linear models, where the application of matrix algebra and tensor operators plays a crucial role. The results on determination of estimators of unknown parameters, on characterization of their properties or comparison of different estimators, as well as procedures of testing hypotheses devoted to structured mean or variance-covariance matrix are mostly welcome to this session.