Structured families of models with COBS

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Abstract

A structured family of models is a family of models which have the same structure corresponding to the treatments of a base design. When the models in the family are mixed with the same variance components the family will be isomorphic. In the isomorphic case, the study of the actions of the factors in the base design will be centered on the estimable vectors of the models in the family.

We will consider such a study for isomorphic families of models with Commutative Orthogonal Block Structure. The family of variance-covariance matrices for such models will be a linear combination of matrices of the principal basis of a complete Jordan algebra. We will also assume that the orthogonal projection matrix on the space spanned by the mean vectors commute with the variance-covariance matrix.

Keywords

Linear Models, Inference.

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