

On linear sufficiency with respect to given parametric functions

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Abstract

Linear sufficiency under the general linear model is considered in the context of a given set of parametric functions. Early research on this subject was carried out by Baksalary and Kala (1986). Presenting new characteristics of linearly sufficient statistic with respect to a given vector of parametric functions we provide further contribution to the theory of linear transformations preserving best linear unbiased estimators in the general linear model. Relation between linear sufficiency and misspecification of dispersion matrix in the model is also investigated.

References:

Baksalary, J.K. and R. Kala (1986). Linear sufficiency with respect to a given vector of parametric functions. *J. Statist. Plann. Inference* 14, 331-338.