

Admissible and linearly sufficient estimation in reduced linear model

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Abstract

Admissible and linearly sufficient estimators in linear model are identified as general ridge estimators, cf. Markiewicz (1996), Heiligers and Markiewicz (1996), and Groß and Markiewicz (2004). Markiewicz (1998) studied their robustness in the problem of estimation of parameters vector in misspecified linear model.

In the present paper we continue this study comparing admissible and linearly sufficient estimators of parameters of interest in a model with nuisance parameters and in reduced linear model. First we derive algebraic characterization of classes of estimators. Then, we compare both classes of estimators utilizing a derived lemma on some properties of projections of linear subspaces. These results are based on the paper Markiewicz and Puntanen (2009).

Keywords

Admissibility, Linear sufficiency, Nuisance parameters, Reduced model.

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