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ON OPTIMALITY OF THE ORTHOGONAL BLOCK DESIGN

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Abstract

In the paper a usual block design with treatment effects fixed and block effects random is considered. To compare experimental design the asymptotic covariance matrix of a robust estimator proposed by Bednarski and Zontek (1996) for simultaneous estimation of shift and scale parameters is used. Asymptotically A - and D - optimal block designs in the class of designs with bounded block sizes are characterized.

Keywords: Experimental design, orthogonal block design, robust estimator, maximum likelihood estimator, A -optimality, D -optimality.

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