

SOME OPTIMAL DESIGNS FOR COMPARING A SET OF TEST TREATMENTS WITH A SET OF CONTROLS*

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Abstract. In this paper, we give a detailed study of the problem of optimally comparing a set of t test treatments to a set of s controls under a 0-way elimination of heterogeneity model. The relationships between designs that are A and MV -optimal for comparing the test treatments to the controls and those that are A and MV -optimal for comparing all treatments are also studied.

Key words and phrases: $A(c)$ -optimal designs, $MV(c)$ -optimal designs, A -optimal designs, MV -optimal designs, controls, test treatments.