

Inequalities and equalities for the generalized efficiency function in orthogonally partitioned linear models

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Abstract

We consider the estimation of regression coefficients in orthogonally partitioned linear models and focus on the Watson efficiency of the ordinary least squares estimator of the full set of the parameters with respect to the best linear unbiased estimator and how this full Watson efficiency relates to the product of the Watson efficiencies of two subsets of the parameters. Building upon our recent paper Chu et al. (2004), we introduce a new and apparently very useful generalized efficiency function and show how it is related to the Watson efficiency.

References:

Chu, K.L., J. Isotalo, S. Puntanen, and G.P.H. Styan (2004). On decomposing the Watson efficiency of ordinary least squares in a partitioned weakly singular linear model. *Sankhyā* 66, in press.