SLOPE-RANGE AND GENERALIZED LEAST SQUARES ESTIMATION

OF THE STRUCTURAL RELATIONSHIP WITH REPLICATED

OBSERVATIONS, UNEQUAL MEANS AND VARIANCES

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ABSTRACT

For a bivariate linear structural relationship with replicated observations, the model that the true variable has a different mean and distinct variance which can differ among groups, is considered. The asymptotic properties of two estimators; slope-range estimator and generalized least squares estimator; are compared under two situations. In the first, the number of replications tends to infinity and in the second, the number of incidental parameters goes to infinity.