A BOOTSTRAP METHOD FOR LINEAR REGRESSION MODEL WITH NON INDEPENDENT AND IDENTICALLY DISTRIBUTED (I.I.D) ERRORS

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Abstract

A bootstrap method in linear regression models is proposed. The model is transformed by multiplication of the two sides with an orthogonal matrix to eliminate the correlations of the errors, turning it in a heteroscedastic regression model. The conditional distribution of the bootstrap estimation of the ordinary least-squares (OLS) of the parameter vector is shown asymptotically to be close to the distribution of the OLS estimator. It is shown by a simulation of an appropriate model.