

報告要旨

2006 年度日本経済学会秋季大会

10/22(日)午前の部 9:00-1100 「ミクロ計量分析」

報告論文タイトル :

A Super-Efficient Test for the Censored Regression Model

報告者 縄田和満 (Kazumitsu Nawata), 東京大学大学院工学系研究科

Abstract

Type I (censored regression) and Type II Tobit (sample selection) models are widely used in the various fields of economics. The Type I Tobit model is a special case of the Type II Tobit model. However, the distribution of the error terms degenerates in the Type I Tobit Model. Results of Monte Carlo experiments show strange behavior that has never been reported before for the Type II Maximum Likelihood Estimator (MLE).

It is an important and interesting problem to test whether the models in actual studies are correctly specified. Some such tests have been proposed for the Type I Tobit Model; however, they are of order $n^{-1/2}$. I also show that we can obtain a super-efficient test of order n^{-1} for the Type I Tobit model. The distributions of the estimators which can be used as a test statistic are also analyzed by the Monte Carlo experiments.

Keywords: tobit model, censored regression model, test statistic, maximum likelihood estimator, super-efficiency

JEL Classification Number: C240, C340, C120