论文

误差为FCA过程的线性模型HD估计的渐近正态性

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Asymptotic Normality of HD Estimators for Linear Models with Functional Coefficient Autoregressive Processes

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全文: PDF (376 KB)   HTML (1 KB)   输出: BibTeX | EndNote (RIS)   背景资料

摘要 考虑线性回归模型 $y=x^T\beta+e$, 其中误差 e 是函数系数自回归(FCA)过程. 本文研究该模型未知参数的 Huber-Dutter估计的渐近性质, 在合理的条件下, 证明了这些估计量以 $n^{-1/2}$ 速度渐近于正态分布.

关键词: 线性回归模型   函数系数自回归过程   HD估计   正态分布

Abstract: Consider the following linear regression model $y=x^T\beta+e$, where the error e is a functional coefficient autoregressive (FCA) processes. In this paper we investigate asymptotic behavior of Huber-Dutter (HD) estimators for unknown parameters in the above model. Under some regular conditions, it is shown that the HD estimators are asymptotically normal with convergence rate $n^{-1/2}$ by the using of martingale difference technique.

Key words: linear regression model   functional coefficient autoregressive process   Huber-Dutter estimators   normal distribution

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引用本文:

徐立峰,胡宏昌. 误差为FCA过程的线性模型HD估计的渐近正态性[J]. 应用数学学报, 2013, 36(5): 881-899.

XU Lifeng,HU Hongchang. Asymptotic Normality of HD Estimators for Linear Models with Functional Coefficient Autoregressive Processes[J]. Acta Mathematicae Applicatae Sinica, 2013, 36(5): 881-899.

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