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论文

ASYMPTOTIC NORMALITY OF M-ESTIMATES IN THE EV MODEL

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摘要 The M-estimate of parameters in the errors-in-variables (EV) model $Y = x^{\tau}\beta_0+\in$, $X = x+u$ ($(\in,u^{\tau})^{\tau}$ is a (p+1)-dimensional spherical error, $Coy[(\in, u^{\tau})^{\tau}] = \sigma^2 I_{p+1}$)being considered. The M-estimate $\bar{\beta}_n$ of β_0 under a general $\rho(\cdot)$ function and the estimateof $\bar{\sigma}_n^2$ are given, the strong consistency and asymptotic normality of $\bar{\beta}_n$ as well as $\bar{\sigma}_n^2$ are obtained. The conditions for the $\rho(\cdot)$ function in this paper are similar to that of linearexpression of M-estimates in the linear regression model.

关键词 EV model, M-estimate, strong consistency

分类号

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Key words EV model M-estimate strong consistency asymptotic normality

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