

NA误差下部分线性模型的经验似然推断

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摘要 对于部分线性模型 $y_{i} = \beta x_{i} + g(t_{i}) + e_{i}$, $1 \leq i \leq n$, 这里 (x_{i}, t_{i}) 是固定设计点, g 是未知函数, e_{i} 是负相协 (NA) 随机误差, 给出了回归系数的经验似然比统计量, 并讨论了似然比统计量的极限分布, 可构造参数的经验似然置信区间.

关键词 [部分线性模型](#), [负相协随机误差](#), [经验对数似然](#), [置信区间](#).

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Empirical Likelihood in Partial Linear Model Under NA Samples

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Abstract This paper is concerned with the typical partial linear model $y_{i} = \beta x_{i} + g(t_{i}) + e_{i}$, $1 \leq i \leq n$, where (x_{i}, t_{i}) are fixed design points, g is an unknown function, and e_{i} 's are negatively associated (NA) random errors. An empirical log-likelihood ratio for the regression coefficient is proposed, the results show that the statistic is asymptotically chi-squared distributed and that the confidence intervals can be constructed accordingly.

Key words [Partial linear model](#) [negatively associated random errors](#) [empirical log-likelihood confidence intervals](#).

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