Empirical likelihood for parametric model under imputation for missing data

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Abstract

In the present paper, we study the empirical likelihood method for a parametric model which parameterizes the conditional density of a response given covariate. It is shown the adjusted empirical log-likelihood ratio is asymptotically standard χ^2 when missing responses are imputed using maximum likelihood estimate.

Keywords : *Confidence region, empirical likelihood, maximum likelihood estimate.*

1. Introduction

It is well known that the empirical likelihood introduced by Owen [1, 2] is a nonparametric technique which is very useful for constructing confidence regions or intervals. It has many advantages over some modern

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