Journal of Systems Science and Complexity 1997 10 (3): 193-201 ISSN: 1000-0577 CN: 11-2019/O1

论文

ASYMPTOTIC PROPERTIES OF MLE IN EXPONENTIAL FAMILY NONLINEAR MODELS

ZHU Zhongyi, WEI Bocheng

Department of Mathematics, Southeast University, Nanjing 210096, China

收稿日期 修回日期 网络版发布日期 接受日期

摘要 In this paper, a necessary condition for the existence of any weakly consistent estimator is presented in exponential family nonlinear models. Then we give one more necessary condition for a consistent estimator in generalized linear models. Under mild regularity conditions, the existence, the strong consistency and the asymptotic normality of MLE are proved in exponential family nonlinear models. Our results may be regardedas a further work of [1] in generalized linear models.

关键词 Exponential family nonlinear models, con

分类号

ASYMPTOTIC PROPERTIES OF MLE IN EXPONENTIAL FAMILY NONLINEAR MODELS

ZHU Zhongyi, WEI Bocheng

Department of Mathematics, Southeast University, Nanjing 210096, China

Abstract In this paper, a necessary condition for the existence of any weakly consistent estimator is presented in exponential family nonlinear models. Then we give one more necessary condition for a consistent estimator in generalized linear models. Under mild regularity conditions, the existence, the strong consistency and the asymptotic normality of MLE are proved in exponential family nonlinear models. Our results may be regardedas a further work of [1] in generalized linear models.

Key words Exponential family nonlinear models consistency asymptotic normality maximum likelihood estimator

DOI:

通讯作者