

## ADJUSTED EMPIRICAL LIKELIHOOD METHOD FOR QUANTILES

WANG ZHOU AND BING-YI JING

*Department of Mathematics, Hong Kong University of Science and Technology, Clear Water Bay,  
Kowloon, Hong Kong, China, e-mail: wangzhou@ust.hk; majing@ust.hk*

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**Abstract.** Empirical likelihood (EL) was first applied to quantiles by Chen and Hall (1993, *Ann. Statist.*, **21**, 1166–1181). In this paper, we shall propose an alternative EL approach which is also some kind of the kernel method. It not only eliminates the need to solve nonlinear equations, but also is extremely easy to implement. Confidence intervals derived from the proposed approach are shown, by a nonparametric version of Wilks' theorem, to have the same order of coverage accuracy (order  $1/n$ ) as those of Chen and Hall. Numerical results are presented to compare our method with other methods.

*Key words and phrases:* Confidence interval, empirical likelihood, quantile, Edgeworth expansion.