Zhou, Xing-cai; Xu, Ying-zhi; Lin, Jin-guan
Wavelet estimation in varying coefficient models for censored dependent data. (English)
Zbl 1463.62296

Summary: In this paper, we discuss the estimation of varying coefficient models based on censored data by wavelet technique when the survival and the censoring times are from a stationary $\alpha$-mixing sequence. For the wavelet estimator of varying coefficient functions, the strong uniform convergence rate is derived and the asymptotic normality is established under the mild conditions. The strong uniform convergence rate we obtained is comparable with the optimal convergence rate of the nonparametric estimation in nonparametric models.

MSC:
62N01 Censored data models
62N02 Estimation in survival analysis and censored data
62G07 Density estimation
42C40 Nontrigonometric harmonic analysis involving wavelets and other special systems

Keywords:
wavelet estimation; varying coefficient; strong mixing; censored data

Software:
WaveThresh4; wavethresh

Full Text: DOI

References: