

Nonlinear wavelet regression function estimator for censored dependent data

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Abstract

Let $(Y;C;X)$ be a vector of random variables where Y ; C and X are, respectively, the interest variable, a right censoring and a covariable (predictor). In this paper, we introduce a new nonlinear wavelet-based estimator of the regression function in the right censorship model. An asymptotic expression for the mean integrated squared error of the estimator is obtained to both continuous and discontinuous curves. It is assumed that the lifetime observations form a stationary α - mixing sequence.

Keywords : Censored data; Mean integrated squared error; Nonlinear wavelet-based estimator; Nonparametric regression; Strong mixing condition.

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