

## A strong uniform convergence rate of a kernel conditional quantile estimator under random left-truncation and dependent data

Elias Ould-Saïd, *Université du Littoral Côte d'Opale, LMPA, Centre de la Mi-Voix*  
Djabrane Yahia, *Lab. of Applied Mathematics, Univ. Mohamed Khider, PB 145, 07000*  
*Biskra, Algérie*

Abdelhakim Necir, *Lab. of Applied Mathematics, Univ. Mohamed Khider, PB 145, 07000*  
*Biskra, Algérie*

### Abstract

In this paper we study some asymptotic properties of the kernel conditional quantile estimator with randomly left-truncated data which exhibit some kind of dependence. We extend the result obtained by Lemdani, Ould-Saïd and Poulin [16] in the iid case. The uniform strong convergence rate of the estimator under strong mixing hypothesis is obtained.

AMS 2000 subject classifications: Primary 62G05, 62G20.

Keywords: Kernel estimator, quantile function, rate of convergence, strong mixing, strong uniform consistency, truncated data.



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