

1107-60-431

Karine Bertin* (`karine.bertin@uv.cl`), Valparaiso, Chile, and **Nicolas Klutchnikoff** (`nicolas.klutchnikoff@ensai.fr`), Rennes, France. *Pointwise adaptive estimation of the marginal density of a weakly dependent process.*

We studied the estimation of the common marginal density function of weakly dependent stationary processes. The accuracy of estimation is measured using pointwise risks. We propose a data-driven procedure using kernel rules. The bandwidth is selected using the approach of Goldenshluger and Lepski and we prove that the resulting estimator satisfies an oracle type inequality. The procedure is also proved to be adaptive (in a minimax framework) over a scale of Hölder balls for several types of dependence: classical econometrics models such as GARCH as well as dynamical systems and i.i.d. sequences can be considered using a single procedure of estimation. Some simulations illustrate the performance of the proposed method. (Received January 20, 2015)