

## ON THE RATE OF STRONG CONVERGENCE FOR A RECURSIVE PROBABILITY DENSITY ESTIMATOR OF END SAMPLES AND ITS APPLICATIONS

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*Abstract.* The purpose of this paper is to consider a kind of recursive density estimator of the probability density function for a sequence of extended negatively dependent random variables. Under some suitable conditions, we establish the strong convergence rate for the recursive density estimator. As application, we discuss the strong convergence rate for a kind of hazard rate function estimator.

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