Journal of Applied Probability & Statistics Vol. **3**, No. 2, 287–297

An Alternate Mean Squared Error Computation for a Censored Data Kernel Density Estimator

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Abstract

In the literature, asymptotic representations of bias and variance for censored data kernel density estimators are usually obtained through counting process methods (Sánchez-Sellero *et al.* [17]). In this paper, we establish a method for evaluating the mean squared error based on elementary principles, and which validates a simple technique for finding asymptotically dominant terms for expected values of functions of censored data. Possible applications of the result are discussed.

Keywords: Kernel smoothing, censored data, Kaplan-Meier estimator.

2000 Mathematics Subject Classification: 62G07, 62N02.