

A cross-validation method for data with ties in kernel density estimation

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Abstract Limitation of the cross-validation method of bandwidth selection is well known when applied to data with ties. A method which resolves this problem and which is easy to understand and implement is proposed. We show that the proposed approach is viable in theory, by proving its asymptotic equivalence to the standard cross-validation method. The practical usefulness is shown in simulations and an application to a real data example.

Keywords Cross-validation · Ties · Kernel density estimator