Bootstrap Selection of the Smoothing Parameter in Nonparametric Hazard Rate Estimation

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Abstract

An asymptotic representation of the mean weighted integrated squared error for the kernel-based estimator of the hazard rate in the presence of right-censored samples is obtained for different bootstrap resampling methods. As a consequence, a new bandwidth selector based on the bootstrap is introduced. Very satisfactory simulations results are obtained in comparison to the cross-validation selector for different models, using WARPed (i.e., binned) versions of the estimators.