

NONPARAMETRIC MAXIMUM LIKELIHOOD ESTIMATION FOR CURRENT STATUS DATA WITH MISCLASSIFICATION

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- **ABSTRACT:** *In current status data, the indicator variable (used for describing either left or right censoring) may be reported with error due to the sensitivity and specificity of the test used to determine its value. That causes an increase in bias for the nonparametric maximum likelihood estimator (NPMLE) of the failure time distribution. We propose an iterative approach to estimate the failure time distribution nonparametrically that takes into account the misclassification caused by the sensitivity and specificity of the test. Simulation studies seem to indicate that the proposed method reduces bias substantially compared to the NPMLE. The method is applied to a real data set.*
- **KEYWORDS:** *Nonparametric maximum likelihood estimation; current status data; misclassification.*

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