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# Conditional Lifetimes: A nonparametric and recursive approach

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Based on the increasing demand for analyzing continuously updated data sets in the context of time-to-event modeling, we propose a novel recursive approach to estimate the conditional hazard function given a set of predictors, when the duration of interest is randomly right-censored. The method is based on a simple representation of the conditional hazard function using a density and a conditional expectation which can be estimated recursively by kernel smoothing. To evaluate the performance of our estimator, we conduct numerical studies and demonstrate its practical utility using a real-world example.

## Thématiques

Large data sets, Nonparametric statistics, Regression models, Recursive Estimator, Survival analysis

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