**A proportional hazards model under bivariate censoring and truncation**

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***Abstract***

Bivariate survival data have received considerable attention recently. However, most existing research works have focused on bivariate survival analysis when one component is censored or truncated and the other is fully observed. Only recently bivariate survival function estimation when both components are censored and truncated has received considerable attention. In order to evaluate the incidence of covariates on the duration time, the proportional hazards model is used.

This paper considers the estimation of the regression coefficients in the Cox Proportional Hazards model, when the components are both censored and truncated. Moreover, we take into account that truncation could affect directly the hazard function. A simulation study is conducted to investigate the performance of the estimators of the unknown parameters.