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The copula-graphic estimator in censored nonparametric location-scale regression models

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Abstract.

Consider a heteroscedastic regression model $Y = m(X) + \sigma(X)\varepsilon$, where the functions m and σ are "smooth", and ε is independent of X . The response variable Y is subject to random censoring. The case where the survival time Y and the censoring time C are independent given X is studied by Van Keilegom and Akritas (1999).

We are studying the extended model in which we assume that for a given X , the survival time Y and the censoring time C are dependent and the dependence is described via an Archimedean copula which depends of X .

References.

Van Keilegom, I. and Akritas, M.G. (1999). Transfer of tail information in censored regression models. *Ann. Statist.*, **27**, 1745-1784.