Accepted Manuscript

Efficient estimation of partially linear additive Cox model under monotonicity constraint

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PII: S0378-3758(17)30134-9
DOI: http://dx.doi.org/10.1016/j.jspi.2017.07.003
Reference: JSPI 5575

To appear in: *Journal of Statistical Planning and Inference*

Received date : 26 April 2016
Revised date : 1 May 2017
Accepted date : 26 July 2017

Please cite this article as: Lu, M., Lu, T., Li, C., Efficient estimation of partially linear additive Cox model under monotonicity constraint. *J. Statist. Plann. Inference* (2017), http://dx.doi.org/10.1016/j.jspi.2017.07.003

*Highlights (for review)

Highlights

1. A hybrid numerical approach based on the Newton-Raphson algorithm and the isotonic regression was proposed to compute the spline estimates.
2. The spline estimators of the nonparametric components were shown to achieve the optimal rate of convergence under the smooth condition.
3. The estimators of the regression parameters were shown to be asymptotically normal and efficient.
4. A direct and simple variance estimation method based on the least-squares estimation was proposed.