

Accepted Manuscript

Hybrid $L_{1/2+2}$ Method for Gene Selection in the Cox Proportional Hazards Model

Hai-Hui Huang , Yong Liang

PII: S0169-2607(18)30421-8
DOI: [10.1016/j.cmpb.2018.06.004](https://doi.org/10.1016/j.cmpb.2018.06.004)
Reference: COMM 4736



To appear in: *Computer Methods and Programs in Biomedicine*

Received date: 27 March 2018
Revised date: 23 May 2018
Accepted date: 5 June 2018

Please cite this article as: Hai-Hui Huang , Yong Liang , Hybrid $L_{1/2+2}$ Method for Gene Selection in the Cox Proportional Hazards Model, *Computer Methods and Programs in Biomedicine* (2018), doi: [10.1016/j.cmpb.2018.06.004](https://doi.org/10.1016/j.cmpb.2018.06.004)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- We extend the hybrid $L1/2 + 2$ regularization (HLR) idea to the censored survival situation, a new edition of sparse Cox model based on the HLR regularization has been proposed.
- We developed two algorithms for solving the HLR penalized Cox model; one is the coordinate descent algorithm with HLR thresholding operator, the other is the weight iteration method.
- The results of empirical and simulations imply that the proposed strategy is highly competitive in studying high dimensional survival data among several state-of-the-art methods.

Download English Version:

<https://daneshyari.com/en/article/6890673>

Download Persian Version:

<https://daneshyari.com/article/6890673>

[Daneshyari.com](https://daneshyari.com)