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Model averaging for linear models with responses missing at random

Yuting Wei[1] · Qihua Wang[2,3] · Wei Liu[4]

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Abstract

In this paper, a model averaging approach is developed for the linear regression models with response missing at random. It is shown that the proposed method is asymptotically optimal in the sense of achieving the lowest possible squared error. A Monte Carlo study is conducted to investigate the finite sample performance of our proposal by comparing with some related methods, and the simulation results favor the proposed method. Moreover, a real data analysis is given to illustrate the practical application of our proposal.

Keywords Missing responses · Missing at random · Model averaging · Asymptotic optimality

✉ Qihua Wang
qhwang@amss.ac.cn

Yuting Wei
ytwei@mail.ustc.edu.cn

Wei Liu
liuwei@mathstat.yorku.ca

1 Department of Statistics and Finance, University of Science and Technology of China, Hefei 230026, China

2 School of Statistics and Mathematics, Zhejiang Gongshang University, Hangzhou 310018, Zhejiang, China

3 Acacdemy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing 100190, China

4 Department of Mathematics and Statistics, York University, Toronto M3J 1P3, Canada