

School of Statistics, Beijing Normal University

No.19, Xinjiekouwai Street, Haidian District, Beijing, China, 100875 **E-mail**: xxx@bnu.edu.cn

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Dear Application Committee,

In econometrics and genomics, the establishment of statistical inferences is often distorted by confounding variables that cause pseudo-correlation and lead to distortion of causality. The doubly debiased lasso method, on the other hand, aims to efficiently estimate implicitly confounding variable models in the high-dimensional case by simultaneously removing the bias caused by confounding variables and regularization, resulting in unbiased estimates.

Partially linear model is a kind of semiparametric model, including both linear regression and non-linear functions in itself. Using a partially linear model as a framework allows for the convenient introduction of both nonlinear trends and confounding variables, which is consistent with the problem of large-scale nonparametric or semiparametric estimation under confounding in realistic data analysis.

Sincerely,

XXX, Professor, School of Statistics, Beijing Normal University