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DIFFERENCE FOR DIFFERENCE ESTIMATION METHOD FOR SEMIPARAMETRIC PARTIALLY LINEAR REGRESSION MODELS

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ABSTRACT

This paper proposes a new difference-based estimation method for estimating the semi parametric partially linear model (PLM). This method is called the difference for difference (DFD) estimation method, which is proposed by the author, for estimating the residual variance in nonparametric regression models. In this work, the DFD estimation method is used for estimating both the parametric component and the residual variance. A numerical study has been shown that the proposed DFD estimation gives best results compared to other existing difference methods; in the form of less mean squared error of parametric component and less residual variance of the fitted model.

KEYWORDS: Difference-Based Estimation, Mean Squared Error, Partially Linear Models, Residual Variance, Semi Parametric Regression