Nonparametric Identification and Estimation with Non-Classical Errors-in-Variables

Kirill S. Evdokimov and Andrei Zeleneev

Abstract :
This paper considers nonparametric identification and estimation of the regression function when a covariate is mismeasured. The measurement error need not be classical. Employing the small measurement error approximation, we establish nonparametric identification under weak and easy-to-interpret conditions on the instrumental variable. The paper also provides nonparametric estimators of the regression function and derives their rates of convergence.