# Nonparametric Estimation of Truncated Conditional Expectation Functions

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**Abstract**

Truncated conditional expectations appear in various economic applications, e.g. in studies of wealth and income inequality, finance, and impact evaluation. I propose a two-stage, kernel estimator of truncated conditional expectation functions where the truncation occurs above or below conditional quantiles. In the first stage, I estimate the quantile function. In the second stage, I run a regression with a generated outcome variable based on an orthogonal conditional moment, which is insensitive to small perturbations of the quantile function. My estimator, based on local linear methods, has favorable bias properties both for interior and boundary points of the support of the conditioning variables. As an extension, I consider estimation with an estimated truncation quantile level. I apply my estimator to estimate bounds on the local average treatment effect in a sharp regression discontinuity design with a manipulated running variable.