**Cluster Robust Inference in Linear Regression Models with Many Covariates

Abstract : The linear regression model is widely used in empirical work in economics, statistics, and many other disciplines. We give inference methods that allow for many covariates and clustering. Our results are obtained using high-dimensional approximations, where the number of included covariates is allowed to grow as fast as the sample size. We study various cluster robust variance estimators and give conditions under which they are consistent. Examples of models covered by our results include the partially linear regression model and linear panel data models with fixed effects.**