

Documentation for Conley, Gonçalves, Kim and Perron (2022) "Bootstrap inference under cross sectional dependence"

This readme file provides a description of the files contained in CGKP_2022_QE.zip used to obtain the tables and figures in the paper. The top level of the zip file is divided into three directories, named "Monte Carlos", "Figures" and "Application", that contain code for simulation results, figures, and the empirical application, respectively. The code for the application requires access to the data source which is proprietary and is exempted from QE's replication policy.

The Monte Carlos and Figures folders contain files with Matlab code. The Application folder contains a Stata do file.

Data source

The data are from Statistics Canada and requires a link between the National Accounts Longitudinal Microdata File (NALMF) which contains all incorporated firms in Canada and wholesaler import data also from Statistics Canada.

Monte Carlos Folder

The files basic1.m to basic5.m are used to produce the data that is plotted in Figures 1-5:

basic1.m: produces results for Figure 1 with Euclidean distance and no measurement error

basic2.m: produces results for Figure 2 with Euclidean distance and $N(0,2)$ measurement error in locations

basic3.m: produces results for Figure 3 with Euclidean distance and $N(0,4)$ measurement error

basic4.m: produces results for Figure 4 with Euclidean distance and $N(),10)$ measurement error

basic5.m: produces results for Figure 5 with maximum distance and no measurement error

The file ols.m is a subroutine that computes the OLS estimator and related statistics.

The code was run in Matlab 2021b and requires the Statistics and Machine Learning and Parallel Computing toolboxes. It was run on an HP Z8 G4 workstation with Intel Xeon Silver 4116 @2.10 Ghz and 48GB of RAM with 12 workers. The computation for each figure takes about 6 days.

Figures Folder

The files "figure1.m" to "figure5.m" use the results generated above to create Figures 1-5.

Application Folder

The folder contains a single file that generates results reported in Table 1 of the paper.