New developments in econometric analysis

University of Munich
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This short course will cover recent advances in three approaches to causal inference in economics: those based on shift-share instruments, partially-randomized treatments (which are computed from multiple sources of variation, only some of which are as-good-as-random), and difference-in-difference designs. In each setting we will discuss the underlying assumptions, develop tests for their validity, and appropriate estimators for causal estimands of interest, contrasting them with the more conventional ones. We will illustrate these methodological insights in empirical applications to important economic questions, such as the local labor market effects of import competition from China, the economic impacts of high-speed rail, the crowdout effects of Medicaid, and the marginal propensity to consume out of tax rebates.

Course Plan and Suggested Readings:

Tuesday, January 11th (15:30-17:00): Quasi-Experimental Shift-Share Research Designs

- Borusyak, K., P. Hull, and X. Jaravel (forthcoming). Quasi-Experimental Shift-Share Designs. Review of Economic Studies.
- Goldsmith-Pinkham, P., I. Sorkin, and H. Swift (2020). Bartik Instruments: What, when, why, and how. American Economic Review, 110 (8), 2586-2624.
- Adao, R., M. Kolesar, and E. Morales (2019). Shift-share Designs: Theory and Inference. The Quarterly Journal of Economics, 134 (4), 1949-2010.

Tuesday, January 18th (15:30-17:00): Non-Random Exposure to Exogenous Shocks

- Borusyak, K. and P. Hull (2021). Non-Random Exposure to Exogenous Shocks: Theory and Applications. NBER Working Paper 27845.

Tuesday, January 25th (14:15-15:45): Revisiting Event Study Designs: Robust and Efficient Estimation

- Borusyak, K., X. Jaravel, and J. Spiess (2021). Revisiting event study designs: Robust and efficient estimation. Mimeo.
- De Chaisemartin, C., and X. d'Haultfouille (2020). Two-way fixed effects estimators with heterogeneous treatment effects. American Economic Review, 110(9), 2964-2996.
- De Chaisemartin, C., and X. d'Haultfouille (2021). Difference-in-Differences Estimators of Intertemporal Treatment Effects. Mimeo.
- Sun, L., and S. Abraham (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. Journal of Econometrics.
- Callaway, B. and P. Sant'Anna (2021). Difference-in-Differences with Multiple Time Periods and an Application on the Minimum Wage and Employment. Journal of Econometrics.
- Roth, J. (2018). Pre-test with Caution: Event-study Estimates After Testing for Parallel Trends. Mimeo.