# MYUNGKOU SHIN


CONTACT INFORMATION

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EDUCATION

**The University of Chicago**
Ph.D. in Economics 2017-2023 (expected)

**Seoul National University**
M.A. in Economics 2015-2017
B.A. in Economics. 2009-2015

*References*

**Stéphane Bonhomme** (chair)
The Ann L. and Lawrence B. Buttenwieser Professor of Economics
The University of Chicago
sbonhomme@uchicago.edu

**Christian Hansen**
Wallace W. Booth Professor of Econometrics and Statistics
The University of Chicago
chansen1@chicagobooth.edu

**Azeem Shaikh**
Ralph and Mary Otis Isham Professor of Economics
The University of Chicago
amshaikh@uchicago.edu

FIELDS OF INTEREST

Primary: Econometrics
Secondary: Applied microeconomics

RESEARCH

*Working paper*

**Clustered Treatment in Multilevel Models**

-I develop a multilevel model for empirical contexts where treatment is possibly endogeneous and uniformly applied to individuals within a cluster. When treatment assignment is clustered, fully flexible cluster heterogeneity immediately fails identification of treatment effect. Thus, I use selection-on-distribution assumption that a cluster-level latent factor behind the cluster-level distribution of individual control covariates sufficiently controls for cluster-level heterogeneity in treatment assignment. In doing so, I let the model fully incorporate the multilevel nature of the data; I characterize treatment effect parameters with macro heterogeneity in terms of the cluster-level distribution and micro heterogeneity in terms of the individual-level control. To implement the idea of selection-on-distribution, I propose a two-step estimation procedure based on the K-means algorithm. I derive two sets of asymptotic results for the estimator under different assumptions: consistency and asymptotic normality when the latent factor has a finite support; consistency when the latent factor is continuous. An empirical illustration of the estimators is provided as I study the disemployment effect of a raise in the minimum wage level on teenagers.

**Finitely Heterogeneous Treatment Effect in Event-study** (draft)

- Treatment effect estimation strategies in the event-study setup, namely a panel data with variation in treatment timing, often use the parallel trend assumption that assumes mean independence across different treatment timings. In this paper, I relax the parallel trend assumption by including a latent type variable and develop a conditional two-way fixed-effects model. With finite support

assumption on the latent type variable, I show that an extremum classifier consistently estimates the type assignment. Firstly, I solve the endogeneity problem of the selection into treatment by conditioning on the latent type, through which the treatment timing is correlated with the outcome. Secondly, as the type assignment is explicitly estimated, further heterogeneity than the usual unit fixed-effects across units can be documented; treatment is allowed to affect units of different types differently and the variation in treatment effect is documented jointly with the variation in untreated outcome.

*Work in progress*

**Clustering Sensitivity with Weakly Dependent Data**

- The practice of clustered standard error is often advocated with a weak dependence assumption: given a metric of distance between units of observations, such as geographical distance, dependence between two units fades away as the distance grows. Under the weak dependence structure, any clustering structure is valid for inference as along as it clusters observations in a way that the distance between units from different clusters is large. This paper shows that there is large variation in the inference result based on the choice of the clustering structure and suggests a simple remedy to summarize multiple inference results based on multiple clustering structure.

## TEACHING

**The University of Chicago**

| | |
|---|---|
| Fall 2018 | Empirical Analysis I (PhD), TA for Prof. Azeem Shaikh |
| Winter 2019 | Empirical Analysis II (PhD), TA for Prof. Lars Peter Hansen and Prof. Harald Uhlig |
| Spring 2019 | Econometrics (Undergraduate), TA for Prof. Azeem Shaikh |
| Fall 2019 | Microeconomics (MBA), TA for Prof. Michael Gibbs |
| Spring 2020 | Econometrics (Undergraduate), TA for Prof. Azeem Shaikh |
| Spring 2021 | Topics in Econometrics (PhD), TA for Prof. Stephane Bonhomme |
| Spring 2022 | Topics in Econometrics (PhD), TA for Prof. Stephane Bonhomme |

## HONORS AND AWARDS

**The University of Chicago**

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|---|---|
| 2017-2022 | Social Science Division Fellowship |
| 2017-2022 | Neubauer Fellowship |
| 2018 | Lee Prize, *highest score earned on the price theory core exam* |
| 2022-2023 | George J. Stigler Fellowship |
| 2022-2023 | Immasche Fellowship |

**The Korea Foundation for Advanced Studies**

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| 2017-2022 | Overseas PhD Scholarship |

## SERVICE

*Referee*

Marketing Science, Food Policy