

**WOORYONG LEE**

<https://wooyong.github.io/>  
[wooyong@uchicago.edu](mailto:wooyong@uchicago.edu)

**Office Contact Information**

1126 E. 59<sup>th</sup> Street – Saich Hall for Economics  
Chicago, IL 60637  
(773) 364 0570

**Placement Directors:** Professor Ufuk Akcigit, [uakcigit@uchicago.edu](mailto:uakcigit@uchicago.edu), (773) 702 0433  
Professor Alessandra Voena, [avoena@uchicago.edu](mailto:avoena@uchicago.edu), (773) 702 9127

**Graduate Student Coordinator:** Robert Herbst, [rherbst@uchicago.edu](mailto:rherbst@uchicago.edu), (773) 834 1972

**Personal Information:** Male, Republic of Korea (South)

**Education**

The University of Chicago, 2014 to present

Ph.D. Candidate in Economics

Thesis Title: “Identification and estimation of average effects in dynamic random coefficient models”

Expected Completion Date: June 2020

M.Sc., Statistics, The University of British Columbia, 2014

B.S., Economics, Korea University, 2012

**References:**

Professor Stéphane Bonhomme (Primary  
Advisor)

University of Chicago

[sbonhomme@uchicago.edu](mailto:sbonhomme@uchicago.edu), (773) 834 6831

Professor Alexander Torgovitsky

University of Chicago

[torgovitsky@uchicago.edu](mailto:torgovitsky@uchicago.edu), (773) 702 1569

Professor Guillaume Pouliot

University of Chicago

[guillaume.pouliot@gmail.com](mailto:guillaume.pouliot@gmail.com), (773) 834  
0628

**Teaching and Research Fields:**

Primary fields: Econometrics

Secondary fields: Labor Economics

**Teaching Experience:**

Spring, 2018      Topics in Econometrics (graduate), University of Chicago, Teaching Assistant  
for Stéphane Bonhomme

Winter, 2018      Topics in Microeconomics (undergraduate), University of Chicago, Teaching  
Assistant for Thibaut Lamadon

Autumn, 2017	Topics in Microeconometrics (undergraduate), University of Chicago, Teaching Assistant for Thibaut Lamadon
Spring, 2017	Applied Microeconometrics (undergraduate), University of Chicago, Teaching Assistant for Juanna Schrøter Joensen
Winter, 2017	Topics in Microeconometrics (undergraduate), University of Chicago, Teaching Assistant for Thibaut Lamadon
Autumn, 2016	Topics in Econometrics (graduate), University of Chicago, Teaching Assistant for Stéphane Bonhomme
2012 to 2014	Elementary Statistics (undergraduate), University of British Columbia, Teaching Assistant for Eugenia Yu

### **Research Experience and Other Employment:**

Summer, 2014    University of British Columbia, Research Assistant for Nancy Heckman

### **Honors, Scholarships, and Fellowships:**

2019                Reid Economics Fellowship  
2014 to 2019       Social Sciences Fellowship  
2012 to 2014       International Partial Tuition Scholarship

### **Professional Activities:**

#### Conference and Seminar Presentations:

2019                Optimization-Conscious Econometrics Conference

### **Language and Computer Skills:**

#### Computer Skills:

R, C++, Matlab, Stata

#### Languages:

English (Fluent), Korean (native)

### **Publications:**

Lee, W., Greenwood, P. E., Heckman, N., & Wefelmeyer, W. (2017). Pre-averaged kernel estimators for the drift function of a diffusion process in the presence of microstructure noise. *Statistical Inference for Stochastic Processes*, 20(2), 237-252.

### **Job Market Paper:**

“Identification and estimation of average effects in dynamic random coefficient models”

In empirical research, there is ample evidence and reasoning on why the parameter of interest itself is heterogeneous across individuals. This paper studies a linear panel data model where its coefficients are heterogeneous, called a random coefficient model. I show that the model is partially identified in the presence of sequentially exogenous regressors such as lagged outcome, and the bounds of parameters of interest such as mean, variance or distribution of the coefficients are characterized using duality principle of linear programming. To compute the bounds, I propose a computation method that is much faster than general methods in Galichon and Henry (2013) and Schennach (2014), which exploits the linear structure and uses a fast algorithm for global optimization of polynomials. The method is applied to life-cycle earnings and consumption dynamics, which provides evidence on large heterogeneity in consumption response to earnings shocks. A structural life-cycle model is calibrated in order to explain the evidence.