

**WOORYONG LEE**

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**Placement Directors:** Professor Ufuk Akcigit, [uakcigit@uchicago.edu](mailto:uakcigit@uchicago.edu), (773) 702 0433  
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**Graduate Student Coordinator:** Robert Herbst, [herbst@uchicago.edu](mailto:herbst@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 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 <a href="mailto:sbonhomme@uchicago.edu">sbonhomme@uchicago.edu</a> , (773) 834 6831	Professor Alexander Torgovitsky University of Chicago <a href="mailto:torgovitsky@uchicago.edu">torgovitsky@uchicago.edu</a> , (773) 702 1569
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Professor Guillaume Pouliot  
University of Chicago  
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**Teaching and Research Fields:**

Primary fields: Econometrics  
Secondary fields: Applied Microeconomics

**Teaching Experience:**

Spring, 2018	Topics in Econometrics (graduate), University of Chicago, Teaching Assistant for Stéphane Bonhomme
Winter, 2018	Topics in Microeconometrics (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 to 2020	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
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### **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.

### **Research Papers:**

“Identification and estimation of dynamic random coefficient models” (Job Market Paper)  
 This paper studies dynamic panel data linear models that allow multiplicative and additive heterogeneity in a short panel context by allowing both the coefficients and intercept to be individual-specific. I show that the model is not point-identified and yet partially identified, and I characterize the sharp identified sets of the mean, variance, and distribution of the partial effect distribution. The characterization applies to both discrete and continuous data. A computationally feasible estimation and inference procedure is proposed, based on a fast and exact global polynomial optimization algorithm. The method is applied to study lifecycle earnings and consumption dynamics in U.S. households in the Panel Study of Income Dynamics (PSID) dataset. Results suggest large heterogeneity in earnings persistence and earnings elasticity of consumption, and a strong correlation between the two. Calibration of the lifecycle model suggests that heterogeneity in asset-related factors, such as interest or discount rates, is required to describe real-world consumption and savings behaviors accurately.

**Work in Progress:**

“Global optimization algorithm for interactive fixed effect models”

“Identification and estimation of binary choice models with heterogeneous state dependence and partial effects”