

# RUI SUN

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## EDUCATION

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<b>University of Connecticut, USA</b>	June 2020 (expected)
Ph.D. Candidate, Economics	
Dissertation Topic: “Essays on Selection on Unobservables and Dynamic Panel Models”	
Committee: Chihwa Kao(major advisor), Stephen L. Ross, Min Seong Kim, Jungbin Hwang	
<b>Johns Hopkins University, USA</b>	2015
M.S., Finance	
M.S., Applied Economics	
<b>Chongqing University, China</b>	2012
B.S., Finance	

## RESEARCH INTERESTS

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High-dimensional Econometrics, Applied Econometrics, Machine Learning

## TEACHING INTERESTS

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Econometrics, Applied Econometrics, Applied Time Series, Machine Learning, R/Python Programming

## WORKING PAPERS

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“Bias-Corrected FE Estimator with Exogenous Variables and Heteroskedasticity in Dynamic Panel Models” (Job Market Paper)

**Abstract** This paper proposes a biased-corrected FE estimator for dynamic panel models under a large sample size. The proposed bias-corrected estimator has several advantages compared to other dynamic panel estimators: first of all, it works for panel autoregressive coefficient in  $(-1, 1]$ . Secondly, it is more efficient than the bias-corrected first-difference estimator. Lastly, unlike most existing dynamic panel estimators, the consistency of the proposed bias-corrected estimator does not depend on the stationarity of the initial condition. This paper further extends the model to include exogenous variables and heteroskedasticity. Based on the asymptotic distributions of the FE estimator for under large  $(n, T)$ , the bias-corrected estimators for the models with exogenous variables and heteroskedasticity are proposed. Monte Carlo simulation shows that the proposed bias-corrected estimator outperforms the GMM-type estimators in a relatively large sample size.

“A Bias-Corrected Fixed Effects Estimator in the Dynamic Panel Data Model” (with Chihwa Kao and Long Liu), submitted to *Empirical Economics*

“Using Machine Learning Methods to Address Selection on Unobservables”

## WORK IN PROGRESS

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“Inference on Dynamic Discrete Choice Models: Hyperbolic Discounting versus Subjective Expectations” (with Yonghong An and Ruli Xiao)

“Test for Change in Persistence in the Dynamic Panel Model”

## CONFERENCES AND SEMINARS

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New York Camp Econometrics XIV	Apr 2019
2019 Asian Meeting of the Econometric Society	Jun 2019
2019 China Meeting of the Econometric Society	Jun 2019
Econometrics Seminar, University of Connecticut	2018-2019

## ACADEMIC EXPERIENCE

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**University of Connecticut, USA** 2016-present

*Instructor*

ECON 2312: Empirical Methods in Economics II (Rating: 4.7/5)	Fall 2018
ECON 3313: Elementary Forecasting in Economics (Rating: 4.6/5)	Spring 2019
ECON 2311Q: Econometrics I (Rating: 4.6/5)	Fall 2019

*Teaching Assistant*

ECON 2201-2: Intermediate Microeconomic Theory	Fall 2016
ECON 2201-3: Intermediate Microeconomic Theory	Fall 2016
ECON 1000: Essentials of Economics	Fall 2016
ECON 1200: Principles of Economics (Intensive)	Spring 2017
ECON 2201: Intermediate Microeconomic Theory	Spring 2017
ECON 2447: Economics of Sports	Spring 2017

*Research Assistant*

Professor Chihwa Kao Fall 2017 & Spring 2018

## AWARDS AND HONORS

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*Awards*

Economics Department Graduate Assistantship	2016 - present
Eleanor Bloom Fellowship	2017-2019
Timothy A. and Beverly C. Holt Economics Fellowship	Mar 2018
Economics Department General Scholarship	Apr 2019
Doctoral Dissertation Fellowship	Jun 2019
Eleanor Bloom Supplemental Funds	Jul 2019
Doctoral Student Travel Fellowship	Aug 2019

*Honors*

2019 University Outstanding Graduate Teaching Award Nomination	Nov 2018
Provost Recognition for Excellence in Teaching	Feb 2019
Provost Recognition for Excellence in Teaching	May 2019

## COMPUTER SKILLS

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R, Stata, Python, Matlab, L<sup>A</sup>T<sub>E</sub>X

## LANGUAGE SKILLS

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English(fluent), Chinese(native)

## REFERENCES

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**Chihwa Kao** (Major Advisor)  
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