

# Jianhan Zhang

<https://jianhzhang.github.io>

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## Research fields

Last updated: October 4, 2023

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Primary: Econometric theory; Secondary: Applied Econometrics, Financial Econometrics.

## Education

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**PhD in Economics** Sep 2019 - Aug 2024(expected)

University of Guelph(Canada)

Committee: [Thanasis Stengos](#)(Chair), [Yiguo Sun](#), [Hong Li](#)

Thesis title: “Endogeneity on Threshold Regression Model”

**M.A in Economics**

Sep 2016 - Aug 2019

Central University of Finance and Economics(China)

**BA in Economics**

Sep 2012 - May 2016

Anhui University of Finance and Economics(China)

## Working papers

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### Threshold regression model with mismeasured variables

*Jianhan Zhang, Yiguo Sun*

- We consider a threshold regression model with possible mismeasured regressors, which is useful for the firm’s investment model, as the mismeasurement of Tobin’s  $Q$  and the possible threshold effect that comes from financial constraints should not be ignored. In econometric theory, we extend the existing linear model by allowing threshold structure and an  $MoM$ (Median of Means) robustness estimator to overcome the possible heavy-tailed problem.

### Endogeneity kink threshold regression model

*To be resubmitted to JBES*

*Jianhan Zhang, Chaoyi Chen, Yiguo Sun and Thanasis Stengos*

- In this paper, we solve the possible endogeneity problem in a kink threshold regression model, where both the threshold variable and regressors are allowed to be endogeneity. We apply a two-step Sieve LS estimation and establish a root-n convergence of the parametric estimators(linear coefficients and threshold parameters). Using our model to measure the possible threshold effect of COVID-19 on North America’s labor market, we find the negative impact being statistically severe only after the number of COVID-19 cases is above a certain level.

## Work in progress

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### Robust GMM estimator of errors-in-variables model

*Jianhan Zhang, Yiguo Sun*

## Projects

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### Research Assistant

Dr. Thanasis Stengos

S21; W22; W23; S23

Dr. Yiguo Sun

F22

Dr. Kurt Annen

S21

Dr. Fred Liu

S22

Dr. Hong Li

F23

**Book revision**  
with Prof. Ray Rees(LMU) and Prof. Mike Hoy

F20-F21  
Mathematics for Economics 4ed

### *Referee*

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Empirical Economics ×2

### *Teaching interests*

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**Graduate** *Econometrics Theory, Applied Econometrics*

**Undergraduate** *Statistics, Econometrics, Financial Econometrics*

### *Teaching*

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**Lecturer for Economic Statistics(ECON2740)** *F23 [Syllabus]*

### *Conference*

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**Economic students workshop(Guelph)** *W22/W23*

**38th Canadian Econometrics Study Group Annual Meeting** *F23*

### *Technical skills*

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**Tools** R, Matlab, Python, Gauss, L<sup>A</sup>T<sub>E</sub>X

### *Language*

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**English** Fluent

**Chinese** Native

### *References*

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**Dr. Thanasis Stengos(Chair)**

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**Dr. Yiguo Sun**

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**Dr. Hong Li**

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