Pei Yu

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Research Fields

Primary: Econometrics, Networks
Secondary: Applied Microeconomics

Education

Ph.D., Economics, Rice University	(Expected) 2027
M.A., Economics, Rice University	(Expected) 2027
M.A., Economics, Jinan University	2021
B.A., International Business, Southwestern University of Finance and Economics	2018

Honors and Awards

Graduate Fellowship, Rice University	2021–2027
Academic Scholarship, Jinan University	2018–2021
Outstanding Student, Southwestern University of Finance and Economics	2018
First-Class Scholarship, Agricultural Bank of China	2017
Research and Innovation Scholarship, Southwestern University of Finance and Economics	2016
National Scholarship (Top 1%), Ministry of Education of the People's Republic of China	2016
First-Class Academic Scholarship, Southwestern University of Finance and Economics	2014–2017

Publications

"Network Games with Triadic Interactions," with Wei Shi and Chunchao Wang. *International Economic Review*, (2026), 67(2), 605–632.

"Key Links in Network Interactions: Assessing Route-Specific Travel Restrictions in China During the Covid-19 Pandemic," with Xi Chen, Yun Qiu and Wei Shi. *China Economic Review*, (2022), 73, 101800.

Working Papers

"Semiparametric Estimation of Network Formation Models with Nonrandomly Missing Nodes." (Job Market Paper)

This paper studies semiparametric identification and estimation of dyadic (directed) link formation on social networks when nodes are endogenously sampled based on observed and unobserved characteristics, and only the outgoing links of sampled nodes are observed. Using a special regressor conditionally independent of the unobserved effects and the link-specific shock, I transform the binary link outcome into a linear model with interactive fixed effects. The approach does not require structural modeling of sample selection or parametric distributional assumptions. I propose a two-step estimator with a kernel estimate of the special regressor's conditional density in the first step. Under suitable conditions, the estimator is consistent and asymptotically normal, but the incidental parameter bias for individual heterogeneity persists. I develop an analytical bias correction and estimate the variance with a modified jackknife. Monte Carlo simulations show that the proposed estimator performs well in finite samples. In an application to the village lending networks of Banerjee et al. (2013), accounting for sample selection substantially increases the estimated religious homophily.

"Estimation of Random-coefficient Dynamic Panel Data Models with Fixed T," with Xun Tang. Submitted to *Econometrica*.

"Addressing Endogeneity under Network Interference."

Work in Progress

"Heterogeneous Peer Effects in Networks."

Conferences and Seminars

Texas Camp Econometrics, Midwest Econometrics Group Annual Meeting, Southern Economic Association Annual Meeting (nominated student, scheduled), China International Conference in Economics (scheduled)	2026
Third Year Paper Conference, Rice University	2024
Econometrics Camp, Jinan University	2020

Teaching and Research Experience

Teaching Assistant, Rice University 2021–2026
Microeconomics (UG), Behavioral Economics (UG), Money Matters (UG), Principle of Economics (UG)
Research in Econometrics (UG), Applied Econometrics (UG), Econometrics I & II (G)

Teaching Assistant, Advanced Econometrics (G), Jinan University 2019–2020

Research Assistant to Professors Xi Chen (Yale University) and Yun Qiu (Jinan University) 2023

Research Assistant to Professor Wei Shi (Jinan University) 2018–2021

Other Skills

Languages: Mandarin (native), English (fluent)

Programming: Python, R, Stata, Matlab, Julia, SQL

References

Professor Xun Tang (Chair)
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Professor Isabelle Perrigne
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Professor Matthew Thirkettle
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Professor Guillaume Pouliot
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