

# Wayne Yuan Gao

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## Academic Appointments

University of Pennsylvania:

Assistant Professor of Economics, Department of Economics, 2020-current  
Faculty Affiliate, the Warren Center for Network & Data Sciences, 2019-current  
Lecturer, Department of Economics, 2019-2020

Harvard University:

Visiting Assistant Professor of Economics, Department of Economics, Spring 2022

## Education

Ph.D. Economics, Yale University, 2014-2019  
*En Route*: M.Phil. & M.A. Economics, 2016  
M.A. Economics, Duke University, 2012-2014  
B. Economics & Finance, University of Hong Kong, 2009-2012

## Publications

1. “Using Monotonicity Restrictions to Identify Models with Partially Latent Covariates”, with Minji Bang, Andrew Postlewaite and Holger Sieg, *Journal of Econometrics*, 2023, 235(2), 892-921.
2. “Logical Differencing in Dyadic Network Formation Models with Non-Transferable Utilities”, with Ming Li and Sheng Xu, *Journal of Econometrics*, 2023, 235(1), 302-324.
3. “Informal Risk Sharing with Local Information”, with Attila Ambrus and Pau Milan, *Review of Economic Studies*, 2022, 89(5), 2329–2380.

4. “How Flexible is that Functional Form? Quantifying the Restrictiveness of Theories”, with Drew Fudenberg and Annie Liang, *Proceedings of the 22nd ACM Conference on Economics and Computation*, 2021, 497-498. (Award: Exemplary Artificial Intelligence and Computation Track Paper, ACM EC’21.)
5. “Nonparametric Identification in Index Models of Link Formation”, *Journal of Econometrics*, 2020, 215(2), 399-413. (Award: The 2021 Arnold Zellner Award for Best Theory Paper Published in 2019-2020, *Journal of Econometrics*)
6. “Minimax Linear Estimation at a Boundary Point”, *Journal of Multivariate Analysis*, 2018, 165, 262-269.
7. “Structural Inference from Reduced Forms with Many Instruments”, with Peter C.B. Phillips, *Journal of Econometrics*, 2017, 199, 96-116.
8. “Informal Insurance Networks”, with Eunyoung Moon, *B.E. Journal of Theoretical Economics*, 2016, 16, 455-484.

## Working Papers

1. “IV Regressions without Exclusion Restrictions” (July 2023), with Rui Wang, arXiv:2304.00626.
2. “How Flexible is that Functional Form? Quantifying the Restrictiveness of Theories” (July 2023), with Drew Fudenberg and Annie Liang, SSRN #3580408, revised and resubmitted to the *Review of Economics & Statistics*.
3. “A Partial Order on Preference Profiles” (April 2023), arXiv:2108.08465.
4. “Two-Stage Maximum Score Estimator” (September 2022), with Sheng Xu and Kan Xu, arXiv: 2009.02854.
5. “Dynamic Heterogeneous Distribution Regression Panel Models, with an Application to Labor Income Processes” (March 2022), with Iván Fernández-Val, Yuan Liao and Francis Vella, arXiv:2202.04154.
6. “Robust Semiparametric Estimation in Panel Multinomial Choice Models”, with Ming Li (March 2021), SSRN #3282293.

## Fellowships, Honors and Awards

- The 2021 Arnold Zellner Award for Best Theory Paper Published in 2019-2020, *Journal of Econometrics*

- Exemplary Artificial Intelligence and Computation Track Paper, 22nd ACM Conference on Economics and Computation, 2021
- Arnold Zellner Thesis Award in Econometrics and Statistics, American Statistical Association, 2020
- Irving B. Kravis Certificate for Distinction in Undergraduate Teaching, UPenn, 2020
- George Trimis Prize for Distinguished Dissertation in Economics, Yale University, 2019
- *Review of Economic Studies* European Tour, 2019
- University Dissertation Fellowship, Yale University, 2018
- Carl Arvid Anderson Prize Fellowship in Economics, Cowles Foundation, 2017
- Cowles Foundation Fellowship, 2014-2018
- University Fellowship (Hastings Fellow), Yale University, 2014-2018
- First-Class Honours, University of Hong Kong, 2012
- HKU Foundation Scholarship, University of Hong Kong, 2009-2012
- Bank of East Asia 75th Anniversary Scholarships, 2011
- Shuping Scholarship, Shuping Foundation, 2006-2011

## Grants

- University Research Foundation Grant, UPenn: \$25,228, Mar. 2022 - Feb. 2023
- Penn Undergraduate Research Mentoring Award, UPenn: \$9,000, Summer 2021

## Invited Seminar Presentations

2023: Columbia

2022: HKUST, Maryland, UCLA, Harvard & MIT, Chicago, Northwestern, Wisconsin-Madison

2021: Arizona, Essex, NUS & SMU, Michigan, NYU

2020: Michigan, Syracuse, U Toronto, USC, BU

2019: Georgetown, UCSD, UC Berkeley, UCL, Northwestern, Wisconsin-Madison, UPenn, NYU, Princeton, HKU, CUHK, SMU, PSU, LSE\*, KU Leuven\*, Sciences Po\* (\*: *Review of Economic Studies* European Tour)

## Conference and Workshop Presentations

- 2023: North American Summer Meeting of the Econometric Society (UCLA), CEME Conference for Young Econometricians (Georgetown)
- 2022: Pennsylvania Economic Theory Conference, Cowles Foundation Econometrics Conference, Asian Meeting of the Econometric Society, Greater New York Metropolitan Area Econometrics Colloquium
- 2021: Asian Meeting of the Econometric Society, China Meeting of the Econometric Society
- 2020: North American Winter Meeting of the Econometric Society
- 2019: Network Econometrics Juniors' Conference (Northwestern), Microeconometrics Class of 2019 Conference (Duke), 30th International Conference on Game Theory (Stony Brook), Conference on Network Science in Economics (Indiana-Bloomington)
- 2018: Warren Center Workshop On Trade & Diffusion of Shocks in Networks (UPenn), HUHUE-SMU Tripartite Conference (SMU), Conference on Network Science in Economics (Vanderbilt), North American Meeting of the Econometric Society (UC Davis)
- 2017: Asian Meeting of the Econometric Society (CUHK), Southern Economic Association Annual Meeting (Tampa)
- 2016: Conference on Network Science in Economics (Stanford), Jerusalem Economics School (Hebrew)

## Conference Organization

- 2024 NBER-NSF Time Series Conference at UPenn (program and organization committee)
- 2023 North American Summer Meeting of the Econometric Society (program committee)
- 2021 China Meeting of the Econometric Society (program committee)
- 2019 14th Greater New York Metropolitan Area Econometrics Colloquium at UPenn (program and organization committee), 30th International Conference on Game Theory at Stony Brook (organizer of the parallel session "Networks")

## Referee Services

*American Economic Journal: Microeconomics, American Economic Review, American Economic Review: Insight, Journal of Business and Economic Statistics, Econometrica, Journal of Econometrics, Econometrics Journal, Econometric Theory, Journal of Economic Behavior and Organization, Economic Development and Cultural Change, Economic Journal, Economics Letters, Econometric Reviews, Journal of Economic Theory, Journal of International Development, Journal of Mathematical Economics, National Science Foundation (Proposal Review), International Economic Review, Review of Economics and Statistics, Journal of Political Economy, Quantitative Economics, Quarterly Journal of Economics*

## Other Professional Services

Discussant: AEA Annual Meeting 2022

Panelist, Gary Chamberlain Online Seminar in Econometrics

Member, Master's Alumni Advisory Board, Dept. of Economics, Duke University

## Teaching

UPenn ECON 8300: Topics in Advanced Econometrics (Fall 2022, 2023)

ECON 7300: Econometrics I, Fundamentals (Fall 2023)

ECON 7310: Econometrics II, Methods & Models (Spring 2023)

ECON 712-008: Econometrics of Networks (Fall 2021)

ECON 2300/100: Statistics for Economists (Spring: 2020, 2021; Fall: 2021, 2022, 2023)

Harvard ECON 2140: Econometric Methods (Spring 2022)