

# Wayne Yuan Gao

Department of Economics  
University of Pennsylvania  
The Ronald O. Perelman Center  
for Political Science and Economics  
133 South 36th Street, Office 630  
Philadelphia, PA 19104, USA

Email: waynegao@upenn.edu  
Website: www.waynegao.com

## 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. “Informal Risk Sharing with Local Information”, with Attila Ambrus and Pau Milan, forthcoming in *Review of Economic Studies*.
2. “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.)
3. “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*)

4. “Minimax Linear Estimation at a Boundary Point”, *Journal of Multivariate Analysis*, 2018, 165, 262-269.
5. “Structural Inference from Reduced Forms with Many Instruments”, with Peter C.B. Phillips, *Journal of Econometrics*, 2017, 199, 96-116.
6. “Informal Insurance Networks”, with Eunyong Moon, *B.E. Journal of Theoretical Economics*, 2016, 16, 455-484.

## Working Papers

1. “Dynamic Heterogeneous Distribution Regression Panel Models, with an Application to Labor Income Processes” (Feb. 2022), with Iván Fernández-Val, Yuan Liao and Francis Vella, arXiv:2202.04154.
2. “A Partial Order on Preference Profiles” (Aug. 2021), arXiv:2108.08465
3. “Using Monotonicity Restrictions to Identify Models with Partially Latent Covariates” (Aug. 2021), with Minji Bang, Andrew Postlewaite and Holger Sieg, arXiv:2101.05847: revision and resubmission requested by the *Journal of Econometrics*.
4. “How Flexible is that Functional Form? Quantifying the Restrictiveness of Theories” (Aug. 2021), with Drew Fudenberg and Annie Liang, SSRN #3580408.
5. “Logical Differencing in Dyadic Network Formation Models with Non-Transferable Utilities”, with Ming Li and Sheng Xu (Jul. 2021), arXiv:2001.00691: revised and resubmitted to the *Journal of Econometrics*.
6. “Robust Semiparametric Estimation in Panel Multinomial Choice Models”, with Ming Li (Mar. 2021), SSRN #3282293.
7. “Two-Stage Maximum Score Estimator” (Oct. 2020), with Sheng Xu, arXiv: 2009.02854.

## 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

- 2022: HKUST, Maryland, UCLA\*, Harvard & MIT\*, Chicago\* (\*: scheduled)
- 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

- 2022: Pennsylvania Economic Theory Conference\*, Cowles Foundation Econometrics Conference\* (\*: scheduled)
- 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), HU-HUE-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

- 2021 China Meeting of the Econometric Society (program committee member)
- 2019 14th Greater New York Metropolitan Area Econometrics Colloquium at UPenn (committee member), 30th International Conference on Game Theory at Stony Brook (organizer of the parallel session “Networks”)

## Referee Services

*American Economic Journal: Microeconomics, American Economic Review, Econometrica, Journal of Econometrics, Econometrics Journal, Econometric Theory, Journal of Economic Behavior and Organization, Economic Development and Cultural Change, Economic Journal, 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, 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

Harvard ECON 2140: Econometric Methods (Spring 2022)  
UPenn ECON 712-008: Econometrics of Networks (Fall 2021)  
ECON 103: Econometric Data Science (Fall 2021)  
ECON 103: Statistics for Economists (Spring 2020, 2021)