HANZHE ZHANG

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CURRENT AND PAST POSITIONS

Associate Professor, Department of Economics, Michigan State University, 07/2023-present.

Assistant Professor, Department of Economics, Michigan State University, 08/2015-06/2023.

AFFILIATE AND SHORT-TERM POSITIONS

Visiting Associate Professor, Department of Economics, New York University, 09/2024–12/2024.

Scholar-in-Residence, Center for the Economics of Human Development, University of Chicago, 05/2016–08/2016.

Affiliate, Human Capital and Economic Opportunity Working Group, University of Chicago, 05/2016–present.

Affiliate, Asian Studies Center, Michigan State University, 08/2015–present.

Affiliate, Diversity Research Network, Michigan State University, 08/2015-present.

Affiliate, Ecology, Evolution, and Behavior Program, Michigan State University, 08/2015–present.

Affiliate, Evolution and Future of Work Research Initiative, Michigan State University, 08/2015-present.

Research Intern, Microsoft Research New England, 06/2012–09/2012.

PERSONAL INFORMATION

Born on February 17, 1990 in Tianjin, China; American and Canadian permanent resident.

EDUCATION

PhD Economics, University of Chicago, 09/2010–06/2015.

Thesis: "Essays in matching, auctions, and evolution" under Gary Becker (co-advisor), Phil Reny (co-advisor), Pierre-André Chiappori, Scott Kominers, and Hugo Sonnenschein.

MA Math, BA Math with distinction, BA Economics with distinction (Shanbaum Prize for best senior), minor in Wharton Statistics, University of Pennsylvania, *summa cum laude*, *Phi Beta Kappa*, 09/2007–05/2010.

MA Math Thesis: "Exposition of two-player zero-sum poker models" under Robin Pemantle (advisor) and Herman Gluck. (Class of 1880 Prize for first place in freshman math competition)

BA Economics Honors Thesis: "Deriving Valuations from Bidding Behaviors: British Third Generation Auction in 2000" under Kenneth Wolpin. (Lawrence Klein Prize for best undergraduate thesis)

HONORS

Amazon Research Award, 2023. (one of twenty-six worldwide)

Paul Van Arsdell Best Paper Award in Corporate Finance, Midwest Finance Association, 2020.

Best Paper Award in Markets and Institutions, Eastern Finance Association, 2019.

Yahoo Key Scientific Challenges Award, 2012. (one of thirty worldwide)

Frank H. Knight Fellowship, University of Chicago, 2010-2015.

Lawrence Klein Prize for best undergraduate economics thesis, University of Pennsylvania, 2010.

Shanbaum Prize for best undergraduate economics student, University of Pennsylvania, 2010.

Class of 1880 Prize, first place in freshman math competition, University of Pennsylvania, 2008.

GRANTS

Amazon Science, PI (with Xiao Qiao), "Predicting successful scientific collaborations," 01/2023–12/2024. (\$87,500) National Science Foundation, Future of Work at the Human-Technology Frontier, co-PI (with PI Sinem Mollaoglu & co-PIs Richard DeShon, Kenneth Frank, & Jiliang Tang), "Intelligent social network interventions to augment human cognition for bolstered interdisciplinary interactions in project teams," 09/2019–08/2024. (\$1,439,993)

MSU Generative AI Strategic Partnership Grant, PI (with John Xuefeng Jiang), 01/2024–12/2024. (\$25,000)

MSU Diversity Research Network Launch Awards Program, PI, 11/2021–11/2024. (cumulatively \$10,000)

MSU Pathway to Research Program, PI, 07/2023–12/2024. (\$7,000)

MSU Provost Undergraduate Research Initiative, PI, 05/2016-05/2024. (cumulatively \$43,000)

MSU Asian Studies Center Dr. Delia Koo Faculty Endowment Award, PI, 03/2022–03/2026. (cumulatively \$10,500)

MSU College of Social Science Faculty Initiatives Fund, PI, 05/2021–12/2022. (\$5,332)

Econometric Society World Congress Travel Grant, 2015.

Institute for Humane Studies Hayek Fund, 2015.

The State of Sao Paulo Research Foundation Travel Grant, 2015.

University of Chicago Division of the Social Sciences Travel Grant, 2015.

Loyola University of Chicago Women and Leadership Archives Summer Research Grant, 2014.

RESEARCH

Note: Authors are equally contributing first authors and ordered alphabetically, unless marked by an asterisk (*). **Working Papers**

27. Pay it forward: Theory and experiment (with Amanda Chuan),

Games and Economic Behavior, revise and resubmit, February 2024.

- 26. Axiomatic measures of assortative matching, January 2024.
- 25. Young women in cities: Urbanization and gender-biased migration (with Yumi Koh, Jing Li, Yifan Wu, and Junjian Yi), *Journal of Development Economics*, revise and resubmit, January 2024.
- 24. Self-enforced job matching (with Ce Liu and Ziwei Wang), December 2023.

Peer-Reviewed Papers and Conference Proceedings (c)

23. Reputational bargaining with external resolution opportunities (with Mehmet Ekmekci), *Review of Economic Studies*, accepted, April 2024.

22. Iterative development of dynamic student project team interventions (Arnav Jain, Faizan Shafique, Sinem Mollaoglu, Xu Dong, Hanzhe Zhang, Shimeng Dai, Kenneth Frank, Dorothy Carter, Anna Young Argyris, Annick Anctil, and Kristen Cetin)*, (c)

Construction Research Congress, March 2024.

21. Decentralized matching with transfers: Experimental and noncooperative analyses (with Simin He, Jiabin Wu, and Xun Zhu),

American Economic Journal: Microeconomics, accepted, February 2024.

20. Borrowing stigma and lender of last resort policies (with Yunzhi Hu),

Journal of Financial and Quantitative Analysis, published online, October 2023.

Midwest Finance Association Paul Van Arsdell best paper in corporate finance

Eastern Finance Association best paper in markets and institutions

19. Marital preferences and stable matching in cultural evolution (with Victor Hiller and Jiabin Wu), *Journal of Economic Theory*, 120, 105671, June 2023.

- 18. Profit versus sustainability in bikeshare (with Huiyi Litan, Ke Rong, Youran Wu, Danxia Xie, and Dong Zhao), *Sustainable Cities and Society*, 93, 104512, June 2023.
- 17. A marriage-market perspective on risk-taking and career choices (with Ben Zou),

European Economic Review, 152, 104379, February 2023.

16. Assortative mating on blood type: Evidence from one million Chinese pregnancies (with Yao Hou, Ke Tang, Jingyuan Wang, and Danxia Xie),

Proceedings of the National Academy of Sciences, 119, 51, e2209643119, December 2022.

15. Decision model to optimize long-term subsidy strategy for green building promotion (Yongsheng Jiang, Tao Hu, Dong Zhao, Bingsheng Liu, Hanzhe Zhang, Yunjia Zhang, and Zihao Xu)*, *Sustainable Cities and Society*, 86, 104126, November 2022.

14. Polarization, antipathy, and political activism (with Jiabin Wu),

Economic Inquiry, lead article, 60(3), 1005–1017, July 2022.

13. Project team collaborations during time of disruptions: Transaction costs, knowledge flows, and social network theory perspective (Hasan Gokberk Bayhan, Sinem Mollaoglu, Hanzhe Zhang, and Kenneth Frank)*, (c) *Construction Research Congress*, 1012–1023, March 2022.

12. Prices versus auctions in large markets,

Economic Theory, 72(4), 1297–1337, November 2021.

11. Preference evolution in different matching markets (with Jiabin Wu),

European Economic Review, 137, 103804, August 2021.

10. Tractable cubic cost functions for teaching microeconomics (with Scott Swinton),

Applied Economics Teaching Resources, 3(2), 19–25, June 2021.

9. An investment-and-marriage model with differential fecundity: On the college gender gap, *Journal of Political Economy*, 129(5), 1464–1486, May 2021.

8. The optimal sequence of prices and auctions,

European Economic Review, 133, 103681, April 2021.

7. An evolutionary justification for overconfidence (with Kim Gannon),

Economics Bulletin, 40(3), 2494–2504, September 2020.

6. Pre-matching gambles,

Games and Economic Behavior, 121, 76-89, May 2020.

- 5. The optimal sequence of prices and auctions (extended abstract),
 - Proceedings of the 3rd Conference on Auctions, Market Mechanisms and Their Applications, 36, August 2015.

(c)

4. To risk or not to risk? Improving financial risk taking of older adults by online social information (Jason Chen Zhao, Wai-Tat Fu, Hanzhe Zhang, Shengdong Zhao, and Henry Been-Lirn Duh)*, (c)

Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work and Social Computing, 95–104, March 2015.

- 3. Evolutionary justifications for non-Bayesian beliefs,
 - Economics Letters, 121, 198–201, November 2013.
- 2. Two-player zero-sum poker models with one and two rounds of betting,

Penn Science, 9(1), 27–30, Fall 2010.

1. Cohort profile: The China Jintan child cohort study (Jianghong Liu, Linda McCauley, Yang Zhao, Hanzhe Zhang, Jennifer Pinto-Martin, and Jintan cohort study group)*,

International Journal of Epidemiology, 39(3), 668–674, June 2010.

Seminar and Conference Presentations

post-tenure. 2024: SUNY Albany; World Congress of the Game Theory Society; Stony Brook Game Theory Festival; International Conference on Science of Science and Innovation; American Real Estate and Urban Economics Association National Conference; Midwest Theory Conference; Amazon Science; Midwest Economics Association Annual Meeting; Econometric Society North American Winter Meeting; 2023: Econ Job Market; Southern Economic Association Annual Meeting; Inaugural Michigan Economic Theory Conference; Illinois Economics Association Annual Meeting

pre-tenure. 2023: University of Chicago; University of Washington; Amazon Science; Midwest Economics Association Annual Meeting; Arizona State University; 2022: Australian National University; Midwest Theory Conference; 2021: Midwest Theory Conference; World Congress of the Game Theory Society; Tsinghua University; 2020: Econometric Society World Congress; Canadian Economic Theory Conference; University of Michigan H2D2 Research Day; American Economic Association Annual Meeting; 2019: Southern Economic Association Annual Meeting; Midwest Theory Conference; University of Texas at Austin; Stony Brook Game Theory Festival; CESIfo Summer Institute; 2018: Johns Hopkins Carey Business School; Southern Economic Association Annual Meeting; Midwest Theory Conference; University of Oregon; University of Michigan H2D2 Research Day; Midwest Economics Association Annual Meeting; 2017: Cornell University; Illinois Economics Association Annual Meeting; UM-MSU-UWO Labor Day Conference; Population Association of America Annual Meeting; University of Nebraska at Lincoln 2016: University of Michigan; Midwest Theory Conference; Boston College; 2015: Econometric Society European Winter Meeting; University of Michigan H2D2 Research Day; McMaster University; Econometric Society World Congress

during PhD. 2015: Midwest Theory Conference; Michigan State; Queen's University; Drexel University; American Economic Association Annual Meeting; 2014: University of Wisconsin at Whitewater; Illinois Economics Association Annual Meeting; Chicago-Northwestern Family Economics Day; Fields Institute Optimal Transportation and Equilibrium in Economics; Stony Brook Game Theory Festival; Midwest Theory; 2013: American Economic Association Annual Meeting; Chicago-Northwestern Market Design Workshop; Stony Brook Game Theory Conference; Econometric Society North American Winter Meeting; 2012: Midwest Theory Conference; Stony Brook Game Theory Festival; First Workshop on Midwest Control and Game Theory

Refereeing Activities

Journals: American Economic Journal: Microeconomics; American Economic Review; American Economic Review: Insights; American Mathematical Monthly; China Economic Review; Economic Modelling; Economic Theory; Economics of Education Review; European Economic Review; Frontiers in Robotics and AI; Frontiers in Sociology; Games; Games and Economic Behavior; Information Systems Research; International Journal of Economic Theory; Journal of Economic Behavior and Organization; Journal of Economic Psychology; Journal of Economic Theory; Journal of Economics and Management Strategy; Journal of Evolutionary Economics; Journal of Human Resources; Journal of Labor Economics; Journal of Political Economy; Journal of Public Economic Theory; Journal of Systems Science and Systems Engineering; Oxford Economic Papers; PLOS ONE; Quantitative Economics; Research on Aging; Theoretical Economics

<u>Conference Proceedings</u>: Construction Research Congress (CRC); Neural Information Processing Systems (NIPS); Computer Supported Cooperative Work and Social Computing (CSCW)

Books: McGraw Hill, Open Textbook Network, W. W. Norton & Company

Grants: National Science Foundation (2020, 2021, 2022, 2023)

TEACHING

Courses at MSU

EC950–951 Research Seminars Advanced Topics (graduate), F2016–S2017, F2021–S2022, F2022–S2023.

EC911 Strategic Behavior in Economic Environment (graduate), S2024, S2025.

EC895 Independent Study on Matching and Market Design (graduate), S2024.

EC812B Microeconomics II (graduate), S2018, S2019, S2020, S2021, S2022. S2023, S2024, S2025.

EC401 Advanced Microeconomics (undergraduate), S2017, S2018.

EC301 Intermediate Microeconomics (undergraduate), F2015, S2017, S2018, S2019, S2020.

UGS200H Honors Research Seminar (undergraduate), F2022-S2023, F2023-S2024.

Guest Lectures

WRA291 Academic Writing for Chinese-Speaking Students (undergraduate), Xinqiang Li, F2022. (mentor)

EC911 Strategic Behavior in Economic Environment (graduate), Jon Eguia, MSU, F2016, S2019, S2021.

EC880 Labor Economics I (graduate), Ben Zou, MSU, Spring 2016, Fall 2016.

EC835 Public Expenditures (graduate), Stacy Dickert-Conlin, MSU, Fall 2016.

EC207 Honors Game Theory (undergraduate), Hugo Sonnenschein, UChicago, Fall 2012, Fall 2013.

EC244 Micro Theory in a Math Mode (undergraduate), Hugo Sonnenschein, UChicago, Fall 2012.

Teaching Assistant

BUSF421 Game Theory (MBA), Emir Kamenica, UChicago, Spring 2014.

ECON207 Honors Game Theory (undergraduate), Hugo Sonnenschein, UChicago, Fall 2012, Fall 2013.

ECON244 Micro Theory in a Math Mode (undergraduate), Hugo Sonnenschein, UChicago, Fall 2012.

ECON201 Honors Elements of Economic Analysis II (undergraduate), Glen Weyl, UChicago, Fall 2012.

ECON208 Theory of Auctions (undergraduate), Philip Reny, UChicago, Winter 2012.

SERVICE

PhD Dissertation Committee

Hasan Gokberk Bayhan, construction management, 2020-present.

Xu Dong, 2019–present.

Wenjia Cao, 2019–present. (Red Cedar award for best third-year paper)

Katherine Zhou, 2018–2024. (Red Cedar award; Placement: Southeastern Louisiana University Assistant Professor)

Pallavi Pal, 2014–2020. (Placement: Stevens Institute of Technology Assistant Professor)

PhD Mentoring

Xin Liu, Red Cedar third-year paper committee member, 2024.

Willy Chen, Research assistant, 2023–present.

Katherine Zhou, Directed Research Fellowship, 2020 & 2021.

Zijian Qi, Red Cedar third-year paper committee member, 2019.

Kaidi Wu, Directed Research Fellowship, 2018.

Chris Fowler, Directed Research Fellowship, 2017.

Quinton Baker, Directed Research Fellowship, 2016.

Master's Thesis Committee

Venkataram Chebiyyam, Indian Institute of Science Education and Research Pune, India, December 2023.

Arnav Jain, MSU construction management, August 2023.

Mentored Undergraduates in PhD Programs

Yao Hou, Tsinghua University, 2022. (Rochester economics PhD)

Peiyi Jin, SWUFE, April 2019-Summer 2020. (National University of Singapore economics PhD)

Hanshi Zuo, MSU Honors College Professorial Assistantship, F2018-S2020. (Penn State economics PhD)

Yue Li, Nankai University, Summer 2018–Spring 2019. (Oxford economics MPhil; UCL economics PhD)

Dongming Yu, University of Michigan, August 2017-August 2018. (MSU economics PhD)

Eileen Fang, Peking University, Summer 2016. (USC economics PhD)

Kim Gannon, MSU Dean's Assistantship and PURI, Su2016-S2017. (Yale Health Policy and Management PhD)

Undergraduate Mentoring

(ES=Econ Scholars, PA=Honors College Professorial Assistant, PURI=Provost Undergraduate Research Initiative)

William Carvalho, ES, F2023–S2024; Jiayi Gu, PURI, F2023–S2024; Cassidy Yoder, PA, F2023–S2024; Knick Laux, PURI & Dean's Assistantship, Su2023–present; Rainy Jain, PURI, F2022–S2023; Nadav Langberg, ES & PURI, F2022, Meital Lurie, PA & PURI, F2022–present; Quang Nguyen, PA, F2022–S2023; Jay Stansberry, PURI, F2022–S2023; Calder Moore, PURI, Su2022–S2023; Nick Balesky, ES, F2021–S2023; Matt DiRisio, PA & PURI, F2021–S2023; Leyna Gatti, PA, F2021–S2022; Lian Martin, PURI, F2021–Su2022; Jack Metty, PURI, F2021–S2023; Sarah Pilewski, PURI, F2021–Su2022; Conner Roy, PA, F2021–S2022; Tanner Thering, PURI, F2021–S2022; Archan Tulpule, PA, F2021–S2023; Junheng Yue, PURI, F2021–S2022; Alexander Fos, PURI, Su2021; Evan Seyhun, PURI, Su2021; Nicholas Butler, PA, F2020–F2021; Josie Pelton, ES, F2020–S2022; Babur Kocaoglu, independent research, S2020; Ethan Pritchard, PA, F2019–S2023; Jack Mueller, ES & PA, F2018–S2021; Lauren Nicole Schwartz, ES, F2018–S2020; Nicholas Anderson, PA, F2017–S2018; Alexis Hollowell, ES & PA, F2017–S2019; Whitney Zhou, ES & PURI, F2016–S2019; Jacob Schmitter, PA, F2016–S2017

Mentoring outside MSU

John Ahlin, University of Michigan, MSU ACRES NSF REU, Su2023.

Grace Chang Xu, Massachusetts Institute of Technology, MSU ACRES NSF REU, Su2022.

Aylin Garcia, University of Texas at El Paso, MSU SROP, Su2022.

Tran Nguyen-Phuong, Tulane, MSU SROP, Su2021.

Shuman Zhang, University of Minnesota, May 2021–May 2023. (New York University economics master in 2021)

Rohini Das, Jadavpur University, Summer 2019. (Alberta Machine Learning Institute in 2020)

Suo Shi, University of Wisconsin, Summer 2019. (Cambridge economics MPhil in 2019)

Organization

Co-founder (with Ce Liu), Theory Reading Group, Michigan State University, 09/2019–present.

Organizer, Theory/Macro Brown Bag Seminar, Michigan State University, 09/2015-present.

Organizer, Theory Seminar, Michigan State University, 09/2016–05/2017, 09/2021–05/2023.

 $Co-founder \ (with \ James \ Heckman), Family \ Game \ Theory \ Reading \ Group, University \ of \ Chicago, \ 02/2016-09/2016.$

Organizer, Economic Theory Working Group, University of Chicago, 01/2013–06/2015.

Co-founder (with Danxia Xie), Chicago Chinese Social Research Group, 09/2013–06/2015.

Co-founder (with Sam Hwang), Market Design Reading Group, University of Chicago, 04/2012–06/2015.

Committee

Mentor, MSU Institute for Cyber-Enabled Research Advanced Computational REU, Summer 2022, Summer 2023.

Judge, MSU Alliances for Graduate Education and the Professoriate (AGEP) Conference, 11/2021.

Mentor, MSU Summer Research Opportunity Program for underrepresented students, Su2021, Su2022.

Chair, Qualifying Exam Committee, Michigan State University, 05/2020, 08/2021, 05/2022.

Member, Qualifying Exam Committee, Michigan State University, 08/2016, 05/2018, 08/2019.

Member, Graduate Admissions and Awards Committee, Michigan State University, 09/2020–05/2022.

Member, Extended Advisory Committee, Michigan State University, 06/2019.

Alumni interviewer for undergraduate admissions, University of Pennsylvania, 09/2018-present.

Member, Departmental Computer Committee, Michigan State University, 09/2016–05/2017, 09/2022–05/2023.

Member, Advisory Committee, Michigan State University, 09/2015–08/2016.

Member, Kravis Award Committee for Outstanding Undergraduate Teaching, University of Pennsylvania, 2010.

General Audience Engagement and Presentations

"Can machine learning help team performance?," featured presentation, MSU Science Festival, April 2022.

"Can machine learning help team performance?," Gardner International Magnet School, 7th graders, April 2022.

"Team formation and collaboration styles," MSU Honors College Fireside Chat for freshmen, September 2021.

"Economics grad school," MSU Summer Research Opportunities Program for underrepresented students, Jul 2021.

"How do people pair up?," MSU Science Festival, April 2021.

"Generating and Developing a Research Idea," MSU economics PhD students development seminar, March 2019.

"Academic economics job market," HCEO Summer School on Socioeconomic Inequality, U Chicago, July 2016.

"The game of life: Understanding education and marriage with game theory," Loyola U of Chicago, March 2015.

"Expose yourself!: Endless love," University of Chicago, February 2014.

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