

## HANZHE ZHANG

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### CURRENT AND PAST POSITIONS

Assistant Professor, Department of Economics, Michigan State University, 08/2015–present.

Affiliate, Evolution and Future of Work Research Initiative.

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

Inaugural Summer Scholar-in-Residence, 05/2016–08/2016.

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

### RESEARCH AND TEACHING INTERESTS

Applied Microeconomic Theory: Matching Theory (Labor Economics and Family Economics) and Game Theory (Auctions, Bargaining, and Evolution).

### PERSONAL INFORMATION

Born on February 17, 1990.

### EDUCATION

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

PhD Thesis: “Essays in Matching, Auctions, and Evolution” under Gary Becker (co-advisor), Philip J. 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

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.

### POST-PHD GRANTS

National Science Foundation IIS#1928278, “Intelligent Social Network Interventions to Augment Human Cognition for Bolstered Interdisciplinary Interactions in Project Teams,” co-PI (with PI Sinem Mollaoglu and co-PIs Richard DeShon, Kenneth Frank, and Jiliang Tang), 09/2019–08/2022. (\$1,439,993)

MSU Diversity Research Network Launch Awards Program, PI, 11/2021–11/2022. (\$5,000)

MSU First Generation Students Initiative, PI, Fall 2021–Spring 2022. (\$4,000)

MSU Provost Undergraduate Research Initiative, PI, Su16–F16, F17–S18, Su21–S22. (\$17,000)

MSU College of Social Science Faculty Initiatives Fund, PI, 05/2021–06/2022. (\$5,332)

Econometric Society World Congress Travel Grant, 2015. (\$1,000)

## RESEARCH AND SCHOLARSHIP

### Working Papers

20. “Heterophily, Stable Matching, and Intergenerational Transmission in Cultural Evolution” (with Victor Hiller and Jiabin Wu), December 2021.
19. “A Marriage-Market Perspective on Risk-Taking and Career Choices” (with Ben Zou), December 2021.
18. “Overcoming Borrowing Stigma: The Design of Lending-of-Last-Resort Policies” (with Yunzhi Hu), Oct 2021.
17. “Generalized Reciprocity: Theory and Experiment” (with Amanda Chuan), September 2021.
16. “Decentralized Matching with Transfers: Experimental and Noncooperative Analyses” (with Simin He and Jiabin Wu), September 2021.
15. “Reputational Bargaining with Ultimatum Opportunities” (with Mehmet Ekmekci), April 2021.

### Publications

14. “Project Team Collaborations During Time of Disruptions: Transaction Costs, Knowledge Flows, and Social Network Theory Perspective” (with Hasan Gokberk Bayhan, Sinem Molloaglu, and Kenneth Frank), *American Society of Civil Engineers Construction Research Congress*, March 2022.
13. “Polarization, Antipathy, and Political Activism” (with Jiabin Wu), *Economic Inquiry*, accepted, January 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. (MSU UURAF best paper)
6. “Pre-Matching Gambles,” *Games and Economic Behavior*, 121, 76–89, May 2020.
5. “The Optimal Sequence of Prices and Auctions” (extended abstract), *Third Conference on Auctions, Market Mechanisms and Their Applications*, 36, August 2015.
4. “To Risk or Not to Risk? Improving Financial Risk Taking of Older Adults by Online Social Information” (with Jason Chen Zhao, Wai-Tat Fu, Shengdong Zhao, and Henry Been-Lirn Duh), *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & 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” (with Jianghong Liu, Linda McCauley, Yang Zhao, and Jennifer Pinto-Martin), *International Journal of Epidemiology*, 39(3), 668–674, June 2010.

## Refereeing Activities

Journals: *American Economic Journal: Microeconomics*; *American Economic Review*; *American Economic Review: Insights*; *American Mathematical Monthly*; *Economic Theory*; *Economics of Education Review*; *Frontiers in Robots 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 Theory*; *Journal of Economics and Management Strategy*; *Journal of Evolutionary Economics*; *Journal of Human Resources*; *Journal of Political Economy*; *Journal of Public Economic Theory*; *Journal of Systems Science and Systems Engineering*; *Oxford Economic Papers*; *Quantitative Economics*; *Theoretical Economics*

Conference Proceedings: American Society of Civil Engineers Construction Research Congress (ASCE CRC): (i) automation in construction track, and (ii) infrastructure systems, sustainability and resilience track; Neural Information Processing Systems (NeurIPS) workshop

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

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

## Seminar and Conference Presentations

Australian National University, May 2022 (virtual).

Society of Labor Economists Annual Meetings, Minneapolis, Minnesota, May 2022.

Midwest Theory Conference, Michigan State University, East Lansing, Michigan, October 2021.

The Sixth World Congress of the Game Theory Society, July 2021 (virtual).

Tsinghua University, School of Social Sciences, Institute of Economics, Chen Daisun Lecture, April 2021 (virtual).

Econometric Society World Congress, August 2020 (virtual).

Canadian Economic Theory Conference, May 2020 (virtual).

University of Michigan H2D2 Research Day, March 2020 (virtual).

American Economic Association Annual Meeting, San Diego, California, January 2020.

Presidential Session, Southern Economic Association Annual Meeting, Fort Lauderdale, November 2019.

Midwest Macroeconomics Meeting, East Lansing, Michigan, November 2019.

Midwest Theory Conference, Washington University in St. Louis, St. Louis, Missouri, October 2019.

University of Texas at Austin, Theory Seminar, September 2019.

Stony Brook Game Theory Festival, Stony Brook, New York, July 2019.

CESIfo Summer Institute: Gender in the Developed and Developing World, Venice, Italy, June 2019.

Johns Hopkins Carey Business School, Quantitative and Behavioral Economics Seminar, November 2018.

Southern Economic Association Annual Meeting, Washington DC, November 2018.

Midwest Theory Conference, Vanderbilt University, Nashville, Tennessee, October 2018.

University of Oregon, Departmental Seminar, September 2018.

University of Michigan H2D2 Research Day, Ann Arbor, Michigan, April 2018.

Midwest Economics Association and Society of Labor Economists Joint Session, Evanston, IL, March 2018.

Cornell University, Joint Labor Economics and Public Economics Seminar, November 2017.

Illinois Economic Association Annual Meeting, Chicago, Illinois, October 2017.

UM-MSU-UWO Labor Day Conference, University of Western Ontario, London, Canada, May 2017.

Population Association of America Annual Meeting, Chicago, Illinois, April 2017.

University of Nebraska at Lincoln, Departmental Seminar, March 2017.

University of Michigan, Theory Seminar, December 2016.

Midwest Theory Conference, Purdue University, West Lafayette, Indiana, December 2016.

Boston College, Theory Seminar, April 2016.

Econometric Society European Winter Meeting, Milan, Italy, December 2015.  
 University of Michigan H2D2 Research Day, Ann Arbor, Michigan, December 2015.  
 McMaster University, Departmental Seminar, September 2015.  
 Econometric Society World Congress, Montreal, Canada, August 2015.  
 Midwest Theory Conference, Ohio State University, Columbus, Ohio, April 2015.  
 Michigan State University, Departmental Seminar, January 2015.  
 Queen's University, Departmental Seminar, January 2015.  
 Drexel University, Departmental Seminar, January 2015.  
 American Economic Association Annual Meeting, Boston, Massachusetts, January 2015.  
 University of Wisconsin at Whitewater, November 2014.  
 Illinois Economic Association Annual Meeting, Chicago, Illinois, October 2014.  
 Chicago-Northwestern Family Economics Day, Chicago, Illinois, September 2014.  
 Fields Institute Optimal Transportation and Equilibrium in Economics, Toronto, Canada, September 2014.  
 Stony Brook Game Theory Conference, Stony Brook, New York, July 2014.  
 Midwest Theory, Indiana University-Purdue University Indianapolis, Indianapolis, Indiana, April 2014.  
 American Economic Association Annual Meeting, San Diego, California, January 2014.  
 Chicago-Northwestern Market Design Workshop, Chicago, Illinois, October 2013.  
 Stony Brook Game Theory Conference, Stony Brook, New York, July 2013.  
 Econometric Society North American Winter Meeting, San Diego, California, January 2013.  
 Midwest Theory Conference, Washington University in St. Louis, St. Louis, Missouri, September 2012.  
 Stony Brook Game Theory Festival, Stony Brook, New York, July 2012.  
 First Workshop on Midwest Control and Game Theory, Urbana-Champaign, Illinois, April 2012.

## **TEACHING AND LEARNING**

### **Courses at MSU**

EC951 Research Seminars Advanced Topics II (graduate), S2017, S2022, S2023.  
 EC950 Research Seminars Advanced Topics I (graduate), F2016, F2021, F2022.  
 EC812B Microeconomics II (graduate), S2018, S2019, S2020, S2021, S2022, S2023.  
 EC401 Advanced Microeconomics (undergraduate), S2017, S2018.  
 EC301 Intermediate Microeconomics (undergraduate), F2015, S2017, S2018, S2019, S2020.  
 UGS200H Honors Research: Can Machine Learning Enhance Team Performance? (undergraduate), F2022–S2023.

### **Guest Lectures**

EC911 Strategic Behavior in Economic Environment (graduate), Jon X. 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.

## **ENGAGEMENT, OUTREACH, AND SERVICE**

### **PhD Dissertation Committee**

Xu Dong, Red Cedar third year paper committee member, February 2022.  
Hasan Gokberk Bayhan, co-advisor, construction management and economics, Fall 2020–present.  
Katherine Zhou, committee member, Fall 2018–present. (Red Cedar award for best third-year paper)  
Pallavi Pal, committee member. (Placement: Stevens Institute of Technology Assistant Professor in 2020)

### **Graduate Mentoring**

Katherine Zhou, Directed Research Fellowship, Summer 2020, Summer 2021.  
Zijian Qi, Red Cedar third year paper committee member, February 2019.  
Kaidi Wu, Directed Research Fellowship, Summer 2018.  
Chris Fowler, Directed Research Fellowship, Summer 2017.  
Quinton Baker, Directed Research Fellowship, Summer 2016.

### **Undergraduate Mentoring at MSU**

Lian Martin, First Generation Students Initiative, F2021–S2022.  
Junheng Yue, First Generation Students Initiative, F2021–S2022.  
Jack Metty, Provost Undergraduate Research Initiative, F2021–S2022.  
Sarah Pilewski, Provost Undergraduate Research Initiative, F2021–S2022.  
Tanner Thering, Provost Undergraduate Research Initiative, F2021–S2022. (Boston Fed in 2022)  
Matt DiRisio, Honors College Professorial Assistantship program, F2021–S2022.  
Leyna Gatti, Honors College Professorial Assistantship program, F2021–S2022.  
Conner Roy, Honors College Professorial Assistantship program, F2021–S2022.  
Archan Tulpule, Honors College Professorial Assistantship program, F2021–S2022.  
Nick Balesky, Econ Scholars, F2021–S2023.  
Tran Nguyen-Phuong (Tulane), Summer Research Opportunities Program for underrepresented students, Su2021.  
Alexander Fos, Provost Undergraduate Research Initiative, Su2021.  
Evan Seyhun, Provost Undergraduate Research Initiative, Su2021.  
Josephine Pelton, Econ Scholars, F2020–S2022.  
Nicholas Butler, Honors College Professorial Assistantship program, F2020–F2021.  
Babur Kocaoglu, independent research, S2020. (NY Fed RA in 2022)  
Ethan Pritchard, Honors College Professorial Assistantship program, F2019–present.  
Jack Mueller, Econ Scholars and Honors College Professorial Assistantship, F2018–S2021 (SF Fed RA in 2021).  
Hanshi Zuo, Honors College Professorial Assistantship program, F2018–S2020 (MSU CS master's in 2021).  
Lauren Nicole Swartz, Econ Scholars, F2018–S2020 (MSU marketing research master's in 2020).  
Alexis Hollowell, Econ Scholars, F2017–S2019 (MSU human resource and labor relations master's in 2019).  
Nicholas Anderson, Honors College Professorial Assistantship program, F2017–S2018.  
Whitney Zhou, Econ Scholars and Provost Undergraduate Research Initiative, F2016–S2019.  
Jacob Schmitter, Honors College Professorial Assistantship program, F2016–S2017.  
Kim Gannon, Dean's Assistantship and PURI, Su2016–S2017. (J-PAL RA; Yale PhD)

### **Mentoring outside MSU**

Venkataram Chebiyyam, IISER Pune, India, December 2021–present.  
Shuman Zhang, University of Minnesota, May 2021–present. (New York University master in 2021)  
Peiyi Jin, SWUFE, April 2019–Summer 2020 (National University of Singapore economics PhD in 2020).

Suo Shi, University of Wisconsin, Summer 2019 (Cambridge economics MPhil in 2019).  
Yue Li, Nankai University, Summer 2018–Spring 2019 (Oxford economics MPhil in 2019).  
Dongming Yu, University of Michigan, August 2017–August 2018 (MSU economics PhD in 2018).  
Eileen Fang, Peking University, Summer 2016 (USC economics PhD in 2017).

### **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, 09/2021–05/2022.  
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 for “Can Machine-Learning Interventions Enhance Team Performance?,” MSU Institute for Cyber-Enabled Research Advanced Computational Research Experience for Students (iCER ACRES), Summer 2022.  
Judge, MSU Alliances for Graduate Education and the Professoriate (AGEP) Conference, 11/2021.  
Mentor, MSU Summer Research Opportunities Program for underrepresented students, 05/2021–08/2021.  
Chair, Qualifying Exam Committee, Michigan State University, 05/2020, 08/2021.  
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.  
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**

“How Do People Form Teams?,” MSU Grandparents University for seniors, June 2022.  
“Can Machine Learning Help Team Performance?,” MSU Science Festival for K-12 students, April 2022.  
“How Do People Pair Up?,” MSU Science Festival for K-12 students, April 2021.  
“Team Performance and Team Formation,” MSU Honors College Fireside Chat for freshmen, September 2021.  
“Economics Grad School,” MSU Summer Research Opportunities Program for underrepresented students, Jul 2021.  
“Generating and Developing a Research Idea,” MSU Grad Student Professional 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.

### **Grants during PhD**

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.  
University of Chicago Division of the Social Sciences Summer Grant, 2014.  
Women and Leadership Archives Summer Research Grant, 2014.