# Nikhil Agarwal

MIT Department of Economics
The Morris and Sophie Chang Building
77 Massachusetts Ave, E52-440
Cambridge, MA 02139

Phone: (617) 324-6804 Fax: (617) 253-1330 agarwaln@mit.edu

economics.mit.edu/faculty/agarwaln

#### Education

Harvard University, Ph.D., Economics, 2013. Brandeis University, B.A., Economics and Mathematics, 2008.

#### **Academic Positions**

Massachusetts Institute of Technology, Department of Economics

Associate Professor of Economics (with tenure), 2019 – Present

Castle Krob Career Development Assistant Professor of Economics, 2016 – 2019

Assistant Professor of Economics, 2014 – 2016

National Bureau of Economic Research

Research Associate, 2019 – Present

Faculty Research Fellow, 2014 – 2019

Stanford Institute for Economic Policy Research, Visiting Assistant Professor, 2016-2017 Yale University, Cowles Foundation, Postdoctoral Associate, 2013-2014

# Working Papers

- 1. "Demand Analysis under Latent Choice Constraints: An Application to the US Dialysis Market" (with Paulo Somaini).
- "Choices and Outcomes in Assignment Mechanisms: The Allocation of Deceased Donor Kidneys" (with Charles Hodgson and Paulo Somaini).
   Revise and Resbumit, Econometrica

#### **Publications**

- 1. "Empirical Models of Non-Transferable Utility Matching" (with Paulo Somaini)

  Online and Matching-Based Market Design, book chapter, forthcoming.
- 2. "Market Design" (with Eric Budish)

  Handbook of Industrial Organization, volume 5, chapter 10, Dec 2021.

- 3. "Equilibrium Allocations Under Alternative Waitlist Designs: Evidence from Deceased Donor Kidneys" (with Itai Ashlagi, Michael Rees, Paulo Somaini and Daniel Waldinger) Econometrica, vol 89 (1), pp 37-76, Jan 2021. (subsumes "An Empirical Framework for Sequential Assignment: The Allocation of Deceased Donor Kidneys")
- 4. "Revealed Preference Analysis of School Choice Models" (with Paulo Somaini) Annual Review of Economics, vol 12, pp 471-501, Aug 2020.
- "Market Failure in Kidney Exchange" (with Eduardo Azevedo, Itai Ashlagi, Clayton Featherstone and Omer Karaduman)
   American Economic Review, vol. 109 (11), pp 4026-4070, Nov 2019.
- 6. "Dynamic Incentives in Waitlist Mechanisms" (with Itai Ashlagi, Paulo Somaini and Daniel Waldinger)
  American Economic Association, P&P, vol. 108, pp 341-347, May 2018.
- 7. "What Matters for the Productivity of Kidney Exchange?" (with Itai Ashlagi, Eduardo Azevedo, Clayton Featherstone and Omer Karaduman)

  American Economic Association, P&P, vol. 108, pp 334-340, May 2018.
- 8. "Demand Analysis using Strategic Reports: An application to a school choice mechanism." (with Paulo Somaini)

  Econometrica, vol. 86 (2), pp 391-444, Mar 2018. (lead article)
- 9. "The Welfare Effects of Coordinated School Assignment: Evidence from the NYC High School Match." (with Atila Abdulkadiroglu and Parag Pathak)

  American Economic Review, vol. 107 (12), pp 3635-89, Dec 2017. (lead article)
- 10. "Latent Indices in Assortative Matching Models" (with William Diamond)

  Quantitative Economics, vol. 8(3), pp 685-728, Nov 2017. (lead article, winner of QE best paper award)
- 11. "Policy Analysis in Matching Markets."

  American Economic Review, P&P, vol. 105(5), pp 246-50, May 2017.
- 12. "An Empirical Model of the Medical Match."

  American Economic Review, vol. 105 (7), pp 1939-78, Jul 2015. (lead article)
- 13. "Toxic Exposure in America: Estimating Fetal and Infant Health Outcomes from 14 Years of TRI Reporting." (with Linda Bui and Chanont Banternghansa)

  Journal of Health Economics, vol. 29 (4), pp 557-574, Jul, 2010.

14. "Skewed Bidding in Pay Per Action Auctions for Online Advertising." (with Susan Athey and David Yang)

American Economic Review, P&P, vol. 99(2), pp 441-447, May 2009.

## Other Papers

- 1. "The Trade-off Between Vaccine Prioritization and Speed Depends on Mitigation Measures" (with Andrew Komo, Chetan Patel, Parag Pathak and M Utku Unver).
- 2. "Universal Stochastic Dominance and Equilibrium Selection in Imitation Dynamics." (with Zhenyu Lai). Dormant. 2012.
- 3. "Superbridge and Bridge Indices for Knots." (with Colin Adams, Rachel Allen, Tirasan Khandawit, Alex Simon, Rebecca Winarski and Mary Wootters)

  Journal of Knot Theory and Its Ramifications, vol. 30 (2), Apr 2021.

### **Grants and Honors**

Sloan Research Grant, 2022-17182, 2022-2025

J-PAL North America Health Care Delivery Initiative Grant, 2022-2025

National Science Foundation Research Grant, SES-1948714, 2020-2023

Sloan Research Fellowship, 2019

National Institutes of Health Development Research Grant, R21-DK113626, 2018-2020

MIT Graduate Economics Association Best Advisor Award, 2017-2018

MIT SHASS Research Fund, 2018

Best Paper Award, Quantitative Economics, 2017

National Science Foundation Research Grant, SES-1729090, 2017-2021

Excellence in Refereeing Award, American Economic Review, 2016, 2017

National Institutes of Health, Pilot Grant, P30AG012810, 2016-2017

MISTI Global Seed Fund – Chile, 2015-2017

National Science Foundation Research Grant, SES-1427231, 2014-2018

Review of Economic Studies Tour, 2013

National Bureau of Economic Research Nonprofit Fellowship, 2011-2012

Phi Beta Kappa, 2008

Wien International Scholarship, 2004-2008

### **Invited Lectures**

International Industrial Organization Conference, Plenary Talk, 2021 15th European Matching-in-Practice Workshop, Keynote, 2018 29th Jerusalem Summer School, 2018 AEA Continuing Education Program, 2018 NBER Summer Institute Methods Lectures, 2016

# Teaching and Advising

Massachusetts Institute of Technology

Microeconomic Theory and Public Policy

Advanced Topics in Industrial Organization

Industrial Organization I

Market Design

Reading Group, Structural Empirical Methods

Reading Group, Market Design

Ph.D. student advising with initial placement (\* indicates co-principal advisor):

- 1. Jie Bai '16, Microsoft Post-doc, followed by Harvard Kennedy School
- 2. Yusuke Narita '16, Cowles foundation post-doc, followed by Yale University
- 3. Vivek Bhattacharya\* '17, Northwestern University
- 4. Alonso Bucarey\* '18, Amazon
- 5. David Liu\* '18, Brattle Group
- 6. Daniel Waldinger\* '18, New York University
- 7. Alan Olivi '19, University College London
- 8. Anca-Patrica Anghel\* '20, Charles River Associates
- 9. Mert Demirer\* '20, MSR post-doc, followed by MIT Sloan
- 10. Sam Grondahl\* '20, Mythical Games
- 11. Omer Karaduman\* '20, Stanford post-doc, followed by Stanford GSB OIT
- 12. Alex Olssen\* '20, Wharton
- 13. Anton Popov\* '20, Cornerstone Research
- 14. Will Rafey\* '20, Berkeley post-doc, followed by UCLA Econ
- 15. Allan Hsiao\* '21, BFI post-doc, followed by Princeton Econ
- 16. Clemence Idoux '22, Wharton

Undergraduate student and pre-doc placement:

1. David Zhang '16, Harvard Economics

2. Abigail Ostriker '18, MIT Economics

3. Spencer Pantoja '20, Stanford Economics

4. Lingjun Xia '20, Harvard Statistics, Berkeley Economics (declined)

5. Andrew Komo '22

Yale University, Graduate Industrial Organizations, 2013.

### **Professional Activities**

Co-director: MIT Blueprint Labs

Affiliate: J-PAL North America

Associate Editor: AEJ: Microeconomics

Referee: American Economic Review, AEJ: Applied Economics, AEJ: Microeconomics, Econometrica, Journal of Economic Theory, Journal of Industrial Economics, International Economic Review, Journal of Political Economy, Journal of Public Economics, Quarterly Journal of Economics, Review of Economic Studies.

Program Committee: EC'16, Econometric Society Meetings (2017, 2020), MATCH-UP (2017), NBER IO Summer Insitute Meetings (2019)

Reviewer: National Science Foundation

## SEMINARS AND CONFERENCES (includes planned)

2022: ASSA Meetings, Cornell University, Sciences Po, Stanford University

2021: CREST - Ecole polytechnique, INFORMS Auctions and Market Design, National Academy of Sciences Engineering and Medicine, Michigan State University, MIT/Stanford Organ Allocation Conference, Penn State University, Queens University, University of California at Berkeley, University of Pennsylvania

2020: Lund University, NBER Health Care Meetings, Stockholm University, University of Gothenberg

2019: Chicago Booth, INFORMS, Southern Economic Association Conference, University of British Columbia, University of Maryland

2018: ASSA Meetings, Carnegie Mellon University, Cowles Summer Conference, Conference

on Structural Dynamics (University of Copenhagen), Harvard University, NBER Health Care Meetings, Rice University, Toulouse School of Economics, University of Bologna

2017: ASSA Meetings, Brandeis University, CRATE Conference, EARIE Conference, Princeton University, Santa Clara University, Microsoft Research New England, New York University, Pennsylvania State University, Stanford University, University of California at Berkeley, University of California at Davis

2016: Arizona State University, ASSA Meetings, Stanford University, University of California at Los Angeles

2015: ASSA Meetings, Boston College, Dartmouth Winter Conference, Department of Justice, Harvard, Johns Hopkins University, MIT, NBER Industrial Organizations Meetings, Ohio State University, Pontifica Universidad Católica de Chile, University of Michigan, University of Maryland, University of Pennsylvania, University of Southern California, Universidad Diego Portales, CRES Microeconomics Conference

2014: Boston University, Cowles Summer Conference, Duke University, Harvard University, Microsoft Research, Northwestern University, University of Arizona, University of Calgary, University of Pennsylvania (Wharton), University of Texas at Austin, University of Toronto, University of Wisconsin (Madison), NBER Market Design Meetings, Yale University

2013: Brown University, Central European University, Chicago Booth, Columbia University, Geothe Universität, London School of Economics, Massachusetts Institute of Technology, Microsoft Research, NBER Market Design Meetings, Princeton University, Stanford Econ/GSB Applied Microeconomics, University of Chicago, University of Edinburgh, University of Illinois (Urbana-Champaign), University of Minnesota, Yale University