

Itai Ashlagi CV

Contact Information

Management Science and Engineering
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Positions

2022-present Professor of Management Science and Engineering, Stanford University.

2019-2022 Associate Professor of Management Science and Engineering, Stanford University.

2015-2019 Assistant Professor of Management Science and Engineering, Stanford University.

2010-2015 Assistant Professor of Operations Management at Sloan School of Management, MIT.

2008-2010 Postdoctoral fellow at Harvard Business School; advised by Alvin Roth.

2009-2010 Visiting researcher at Microsoft Research, New England.

Education

2005-2008 PhD in Operations Research, Technion - Israel Institute of Technology; advised by Dov Mondraker and Moshe Tennenholtz.

2003-2005 M.Sc. in Operations Research, Technion - Israel Institute of Technology (summa cum laude).

1996-1999 B.A. in Mathematics and Computer Science 1999, Haifa University (magna cum laude).

Research Interests

Marketplace operations, Mechanism and market design, Matching, Game theory, Organ allocation.

Grants and Awards

-Kidney Transplant Collaborative, 2022.

-Senior fellow the Institute of Stanford Economic Policy Research (SIEPR), 2022.

-MSOM Responsible Research Award for *Optimal Allocation Without Money: An Engineering*, 2020.

- MSOM Service Management SIG Best Paper Award for *Optimal Allocation Without Money; An Engineering Approach*, 2017 (best publication on service management in the last 3 years).

- Graduate Teaching Award, MS&E, Stanford, 2016.

-INFORMS Junior Faculty Interest Group best paper competition, Second place, 2014.

-Franz Edelman Laureate for *Kidneys and the Alliance for Paired Donation: Operations Research Changes the Way Kidneys are Transplanted*, 2014.

-Best Paper Award, Public Programs, Services & Needs (INFORMS), 2013.

-National Science Foundation CAREER Award *Novel Designs for Kidney Exchange and Other Markets, in the Intersection of OR, Econ and CS*, 2013.

- Terasaki Medical Innovation Award, 2012.
- National Science Foundation Grant for proposal *Collaborative Research on Kidney Exchange*, 2011-2016.
- Ferry Fund grant, 2011.
- Outstanding Paper Award in the ACM Conference on Economics and Computation (EC), 2009.
- Special Aaron and Miriam Gutwirth Memorial Scholarship for research excellence, 2007.

Theses

- PhD Thesis: Pre-Bayesian Games, Technion, Israel, 2008.
- M.Sc. Thesis: On the Value of Correlation, Technion, Israel, 2005.

Papers in Refereed Journals

- Ashlagi I., S. Kerimov, I. Gurvich, On the Optimality of Greedy Policies in Dynamic Matching, *Operations Research*, forthcoming.
- Ashlagi I., S. Kerimov, I. Gurvich Dynamic Matching: Characterizing and Achieving Constant Regret, *Management Science*, forthcoming.
- Optimal Dynamic Allocation: Simplicity through Information Design, with Faidra Monachou and Afshin Nikzad, *Review of Economic Studies*, forthcoming.
- Ashlagi I., C. Daskalakis, N. Haghpahanah, Sequential mechanisms with ex post individual rationality, *Operations Research* 2023. *Operations Research*.
- Ashlagi I., M. Burq, C. Dutta, P. Jaillet, A. Saberi, C. Sholley, Edge Weighted Online Windowed Matching, *Mathematics of Operations Research*, forthcoming.
- Ashlagi I., A.K. Krishnaswamy, R. Mahkikhani, D. Saban, K. Shiragur, Assortment planning for two-sided sequential matching markets, *Operations Research*, forthcoming.
- Allman M, Ashlagi I., Nikzad A., On Rank Dominance of Tie-Breaking Rules, *Theoretical Economics*, 2023.
- Ashlagi I., A. Nikzad, P. Strack, Matching in dynamic imbalanced markets, *Review of Economic Studies*, 2023.
- Li, W., I. Ashlagi, I. Lo, Simple and optimal contract design for payment for ecosystem services, *Management Science*, 2022.
- Agarwal N., I. Ashlagi, M.A. Rees, P. Somaini, D. Waldinger, Equilibrium allocations under alternative waitlist designs: Evidence from deceased donor kidneys, *Econometrica*, 89 (1), 37-76, 2021.
- Ashlagi I., A.E. Roth, Kidney exchange: an operations perspective, *Management science*, 67.9 (2021): 5455-5478, 2021.
- Rao, I., A. Shaham, A. Yavneh, D. Kahana, I. Ashlagi, M.L. Brandeau, D. Yamin, Predicting and improving patient-level antibiotic adherence *Health Care Management Science*, 23 (4), 507-519, 2020.
- Ashlagi I., A. Nikzad, What matters in tie-breaking rules? How competition guides design, *Journal of Economic Theory*, 190, 2020.

- Ashlagi I., A. Shameli, A. Saberi, Assignment mechanisms under distributional constraints, *Operations Research*, 68 (2), 467-479, 2020.
- Wapnir I., I. Lo, AE Roth, I. Ashlagi, M. Melcher, Benefits of an interview match for breast fellowship positions, *Annals of Surgical Oncology*, 26, 279-280, 2019.
- Agarwal N., I. Ashlagi, E. Azevedo, C. Featherstone, O. Karduman, Market failure in kidney exchange, *American Economic Review*, 109 (11), 4026-70, 2019.
- Ashlagi I., M. Burq, P. Jaillet, V. Manshadi, On matching and thickness in heterogeneous dynamic markets, *Operations Research*, 67 (4), 927-949, 2019.
- Melcher M.L., I. Ashlagi, I. Wapnir, May the interview be with you: signal your preferences, *Journal of graduate medical education* 11 (1), 39, 2019.
- Melcher M.L., I. Ashlagi, I. Wapnir, Reducing the Burden of Fellowship Interviews—Reply, *JAMA* 321 (11), 1107-1107, 2019.
- Ashlagi I., A. Nikzad, A. Romm, Assigning more students to their top choices: A tiebreaking rule comparison, *Games and Economic Behavior*, forthcoming.
- Melcher M.L., I. Ashlagi, I. Wapnir, Matching for fellowship interviews, *JAMA*, 2018.
- Ashlagi I., M. Braverman, Y. Kanoria, P. Shi, Clearing matching markets efficiently: informative signals and match recommendations, *Management Science*, 66.5 (2020): 2163-2193.
- Ashlagi I., Y. Gonczarowski, Stable matching mechanisms are not obviously strategy-proof, *Journal of Economic Theory*, 177, 405-425, 2018.
- Agarwal N., I. Ashlagi, E. Azevedo, C. Featherstone, O. Karduman, What matters for the productivity of kidney exchange?, *American Economic Association, Papers and Proceedings*, 108:334-340, 2018.
- Agarwal N., I. Ashlagi, P. Somaini, D. Waldinger, Dynamic incentives in wait list mechanisms, *American Economic Association, Papers and Proceedings*, 108:341-347, 2018.
- Ashlagi I., A. Bingaman, M. Burq, D. Gamarnik, V. Manshadi, C. Murphey, A.E. Roth, M.L. Melcher, M.A. Rees, The effect of match run frequencies on the number of transplants and waiting times in kidney exchange, *American Journal of Transplantation*, 18(5):1177-1186, 2018.
- Anderson R., Ashlagi I., D. Gamarnik, Y. Kanoria, Efficient dynamic barter exchange, *Operations Research*, 65.6, 1446-1459, 2017.
- Ashlagi I., J. Leshno, Y. Kanoria, Unbalanced matching markets: the stark effect of competition, *Journal of Political Economy*, 125(1), 69-98, 2017.
Second place in the INFORMS Junior Faculty Interest Group (JFIG) best paper competition, 2014.
- Ashlagi I., P. Shi, Optimal allocated design without money: an engineering approach, *Management Science*, 62(4), 1078-1097, 2015.
MSOM Service Management SIG Best Paper Award, 2017.

- Anderson R., I. Ashlagi, D. Gamarnik, A.E. Roth, Finding long chains in kidney exchange using the traveling salesman problem, *Proceedings of the National Academy of Sciences*, 112(3), 663-668, 2015.
First place in 2013 INFORMS Section on Public Programs, Services and Needs (SPPSN) best paper competition.
- Ashlagi I., P. Shi, Improving community cohesion in school choice via correlated-lottery implementation, *Operations Research*, 62(6), 1247-1264, 2014.
- Anderson R., I. Ashlagi, D. Gamarnik, M. Rees, A.E. Roth, T. Sonmez, M.U. Unver, Kidney exchange and the alliance for paired donation: operations research changes the way kidneys are transplanted, *Interfaces*, 45(1), 26-42, 2015 [Franz Edelman Finalist, 2014].
- Ashlagi I., M. Braverman, A. Hassidim, Stability in large matching markets with complementarities, *Operations Research*, 62(4), 713-732, 2014.
- Ashlagi I., A.E. Roth, Free riding and participation in large scale, multi-hospital kidney exchange, *Theoretical Economics*, 9, 817-863, 2014.
- Ashlagi I., F. Fischer, I. A. Kash, A. D. Procaccia, Mix and match, *Games and Economic Behavior*, available online May 31st, 2013.
- Ashlagi I., S. Dobzinski, R. Lavi, An optimal lower bound for anonymous scheduling mechanisms, *Mathematics of Operations Research*, 37(2), 244-258, 2012.
Outstanding Paper Award in the ACM conference of Electronic Commerce (EC), 2009.
- Ashlagi I., A.E. Roth, New challenges in multi-hospital kidney exchange, *American Economic Review, Papers and Proceedings*, May, 102(3), 354-359, 2012.
- Ashlagi I., F. Klijn, Manipulability in matching markets: conflict and coincidence of interests, *Social Choice and Welfare*, 39(1), 23-33, 2012.
- Ashlagi I., D.S. Gilchrist, A.E. Roth, M.A. Rees, NEAD chains in transplantation, *American Journal of Transplantation*, December, 11, 2780-2781, 2011.
- Ashlagi I., D.S. Gilchrist, A.E. Roth, M.A. Rees, Nonsimultaneous chains and dominos in kidney paired donation - revisited, *American Journal of Transplantation*, 11(5), 984-994, 2011.
- Ashlagi I., B. Klaus, E. Karagozoglu, A noncooperative support for equal division in estate division, *Mathematical Social Sciences*, 63, 228-233, 2012.
- Ashlagi I., D. Monderer, M. Tennenholtz, Simultaneous ad auctions, *Mathematics of Operations Research*, 36(1), 1-13, 2011.
- Ashlagi I., Shigehiro Serizawa, Characterizing Vickrey allocation rule by anonymity, *Social Choice and Welfare*, 28(3), 531-542, 2012.
- Ashlagi I., M. Braverman, A. Hassidim, Dov Monderer, Monotonicity and implementability, *Econometrica*, 78(5), 1749-1772, 2010.
- Ashlagi I., M. Braverman, A. Hassidim, R. Lavi, M. Tennenholtz, Position auctions with budgets: existence and uniqueness, *B.E. Journal of Theoretical Economics - Advances*, 10(1), 2010.

- Ashlagi I., D. Monderer, M. Tennenholtz, Mediators in position auctions, *Games and Economic Behavior*, 67(1), 2-21, 2009.
- Ashlagi I., D. Monderer, M. Tennenholtz, Two-terminal routing games with unknown active player, *Artificial Intelligence Journal*, 173(15), 1441-1455, 2009.
- Ashlagi I., D. Monderer, M. Tennenholtz, On the value of correlation, *Journal of Artificial Intelligence Research*, Vol 33, p. 575-613, 2008.

Papers in Refereed Conference Proceedings

- Ashlagi I., M. Braverman, G. Zhao, Welfare Distribution in Two-sided Random, EC 2023.
- Kerimov, S., I. Ashlagi, I. Gurvich, On the Optimality of Greedy Policies in Dynamic Matching, EC 2022.
- Kang J., F. Moanchou, M. Koren, I. Ashlagi, Counterbalancing Learning and Strategic Incentives in Allocation Markets, NeurIPS, 2021.
- Ashlagi I, F. Monachou, A. Nikzad, Optimal dynamic allocation: Simplicity through information design, EC 2021.
- Ban I, A. Cohen, S. Dobzinski, I. Ashlagi, Simple economies are almost optimal, EC 2021.
- Ashlagi I., M. Braverman, C. Thomas, G. Zhao, Tiered random matching markets: rank is proportional to popularity, ITCS 2021
- Ashlagi I., J. Leshno, P. Qian, A. Saberi, Queue Lengths as Constantly Adapting Prices: Allocative Efficiency Under Random Dynamics, EC 2020.
- Ashlagi I., S. Kerimov, Scrip Systems with Minimal Availability, WINE 2019.
- Ashlagi I., F. Moanchou, Discrimination in Online Markets: Effects of Social Bias on Learning from Reviews and Policy Design, NeurIPS 2019.
- Ashlagi I., M. Burq, C. Dutta, P. Jaillet, A. Saberi, C. Sholley, Edge Weighted Online Windowed Matching, EC 2019.
- Ashlagi I., A. Shameli, A. Saberi, Assignment mechanisms under distributional constraints, SODA 2019.
- Ashlagi I., Y. Azar, M. Charikar, A. Chplunkar, O. Geri, H. Kaplan, R. Makhijani, Y. Wang, R. Wattenhofer, Min-cost bipartite perfect matching with delays, APPROX 2017.
- Ashlagi I. M. Braverman, Y. Kanoria, P. Shi, Communication requirements and informative signaling in matching markets, EC 2017.
- Ashlagi I., C. Dasklakis, N. Haghpanah, Sequential mechanisms with ex-post participation guarantees, EC 2016.
- Ashlagi I., M. Burq, P. Jaillet, V. Manshadi, On matching and thickness in heterogeneous dynamic markets, EC 2016.
- Ashlagi I., A. Nikzad, What matters in tie-breaking rules? How competition guides design, EC 2016.

- Ashlagi I., A. Nikzad, A. Romm, Assigning more students to their top choices: A tie-breaking rule comparison, EC 2015.
- Anderson R., Ashlagi I., D. Gamarnik, Y. Kanoria, A dynamic model for barter exchange, SODA 2015.
- Ashlagi I., P. Shi, Optimal allocated design without money: an engineering approach, EC 2014.
- Ashlagi I., J. Leshno, Y. Kanoria, Unbalanced matching markets: the stark effect of competition, EC 2013.
- Ashlagi I., P. Jaillet, V. Manshadi, Kidney exchange in dynamic sparse heterogeneous pools, EC 2013.
- Ashlagi I., B. Lucier, M. Tennenholtz, Equilibria of online scheduling algorithms, AAAI 2013.
- Ashlagi I., M. Braverman, A. Hassidim, Stability in large matching markets with complementarities, EC 2011.
- Ashlagi I., A.E. Roth, Free riding and participation in large scale, multi-hospital kidney exchange, EC 2011.
- Ashlagi I., F. Fischer, I. A. Kash, A. D. Procaccia, Mix and match, EC 2010.
- Ashlagi I., S. Dobzinski, R. Lavi, An optimal lower bound for anonymous scheduling mechanisms, EC 2009.
- Ashlagi I., P. Krysta, M. Tennenholtz, Social context games, WINE 2008.
- Ashlagi I., A. Klinger, M. Tennenholtz, K-NCC: Stability against group deviations in non-cooperative computation, WINE 2007.
- Ashlagi I., D. Monderer, M. Tennenholtz, Learning equilibrium in congestion games, AAAI 2007.
- Ashlagi I., D. Monderer, M. Tennenholtz, Routing games with an unknown set of active players, AAMAS 2007.
- Ashlagi I., D. Monderer, M. Tennenholtz, Robust learning equilibrium, UAI 2006.
- Ashlagi I., D. Monderer, M. Tennenholtz, Resource selection games with unknown number of players, AAMAS 2006.
- Ashlagi I., D. Monderer, M. Tennenholtz, On the value of correlation, UAI 2005.

Book Chapters

- Ashlagi I., Kidney Exchange, Online Matching Online and Matching-Based Market Design, Cambridge University Press, forthcoming in 2022.
- Ashlagi, I., Market Design: Examples, forthcoming in *Handbook of Healthcare Analytics: Theoretical Minimum for Conducting 21st Century Research on Healthcare Operations*, T. Dai and S. Tayur (Eds). Hoboken, NJ: John Wiley & Sons, 31-50, 2018.

Students and postdoctorate supervision

- Faidra Monachou, 2022 MS&E (faculty in Yale SOM)
- Jamie Kang, MS&E, 2021 (Uber)
- Suleyman Kerimov, MS&E, 2022 (faculty in Rice University).
- Maxwell Allman, MS&E, 2023.
- Wanyi Li, MS&E, 2021.
- Qingyun Wu, Economics, 2020.
- Rahul Makhijani, MS&E, graduated 2019 (Meta).
- Maximillien Burq, OR center, MIT, PhD (Verily).
- Afshin Nikzad, MS&E and Economics, Stanford, 2018 (faculty at Economics USC).
- Peng Shi, OR center, MIT, PhD, 2016 (faculty at Marshall USC)
- Nima Haghpanah, Postdoctorate, (Faculty at Economics, Penn-State University).
- Ross Anderson, OR center, MIT, PhD, graduated in 2014 (Google).

Selected Professional service

- Committee member, A Fairer and More Equitable, Cost-Effective, and Transparent System of Donor Organ Procurement, Allocation, and Distribution, National Academy of Sciences, 2020-2022.
- Committee, Revenue Management best paper award, 2020.
- Editor, Revenue and Market Analytics Area, for *Management Science*, 2021-present.
- Associate Editor, Revenue and Market Analytics Area, for *Management Science*, 2018-2020.
- Associate Editor, Stochastic Models Area, *Operations Research*, 2017-present.
- Associate Editor, Game Theory Area, *Mathematics of Operations Research*, 2016-present.
- Co-organizer and lecturer, Summer Institute Methods Lectures on Matching, NBER, 2016.
- Member, Kidney Paired Donation working group, UNOS, 2014-2018.
- Member, Implementation group for Kidney Paired Donation, Consensus Conference on Kidney Paired Donation 2012-2014.
- Committee member, ACM EC best paper award, 2014.
- Chair, SPSSN INFORMS best paper award, 2014.
- Chair, Design, Optimization and Algorithms Committee for the kidney paired donation in the United Organ Sharing Network (UNOS), 2012-2014.
- Helped in policy design for the Alliance Paired Donation (APD) and the National Kidney Registry (NKR), 2012-2016.