

# Tomer Ezra, Ph.D.

✉ tomer@cmsa.fas.harvard.edu

🌐 <https://tomerezra.github.io/>



## Employment History

- 2024 – ···· 📌 **Postdoctoral Fellow**, Center of Mathematical Sciences and Applications at Harvard University.
- 2023 – 2023 📌 **Postdoctoral Fellow**, Simons Laufer Mathematical Sciences Institute.
- 2021 – 2023 📌 **Postdoc**, Sapienza University of Rome, hosted by Prof. Stefano Leonardi.
- 2020 – 2020 📌 **Research Intern**, Amazon, Alexa Shopping Science Team.

## Education

- 2022 📌 **Ph.D., Computer Science, Tel Aviv University** in Algorithmic Game Theory.  
Thesis title: *Simple Algorithms for Limited Information Settings*.
- 2016 📌 **M.Sc., Computer Science, Tel Aviv University** in Algorithmic Game Theory.  
Thesis title: *Pricing Public Goods for Simultaneous and Sequential Sales*.
- 2010 📌 **B.Sc., Computer Science, The Open University** (*Summa cum Laude*).

## Awards and Achievements

- 2023 📌 **Distinguished Postdoc supported by the Alfred P. Sloan Foundation**, Simons Laufer Mathematical Sciences Institute.
- 2021 📌 **The Deutsch Prize**, Tel Aviv University.
- 2010 📌 **Bronze medal**, SEEMOUS Olympiad for math.
- 2009 📌 **Participation in IOI**, Representing Israel in the International Olympiad in Informatics.  
📌 **Dean's list**, The Open University.
- 2008 📌 **Rector's list**, The Open University.
- 2007 📌 **Dean's list**, The Open University.
- 2006 📌 **Dean's list**, The Open University.

## Teaching

- 2022 📌 **Algorithm Design**. Sapienza University of Rome, Italy.
- 2016 📌 **Programming Languages**. Tel Aviv University, Israel.
- 2015 📌 **Complexity**. Tel Aviv University, Israel.

## Service

### Program Committee:

- 📌 ACM Conference of Economics and Computation (EC'21, EC'22, EC'23, EC'24)
- 📌 Conference on Web and Internet Economics (WINE'21, WINE'23)
- 📌 The Web Conference (WWW'23)
- 📌 The International Symposium on Algorithmic Game Theory (SAGT'23)

## Service (continued)

### Journal Reviews:





- ACM Transactions on Economics and Computation (TEAC), Mathematics of Operations Research (MOR), Operations Research (OR), Games and Economic Behavior (GEB), Mathematical Social Sciences (MSS), Theoretical Computer Science (TCS).

### Conference Reviews:







- FOCS, STOC, SODA, EC, WINE, SAGT, ESA, WWW, SOSA, ICALP, APPROX.













## Research Publications


### Journal Articles

- 1 M. Babaioff, T. Ezra, and U. Feige, “Fair-share allocations for agents with arbitrary entitlements,” *Mathematics of Operations Research*, vol. 0, no. 0, null, 0.  DOI: 10.1287/moor.2021.0199. eprint: <https://doi.org/10.1287/moor.2021.0199>.
- 2 T. Ezra, M. Feldman, N. Gravin, and Z. G. Tang, “Prophet matching with general arrivals,” *Math. Oper. Res.*, vol. 47, no. 2, pp. 878–898, 2022.  DOI: 10.1287/MOOR.2021.1152.
- 3 T. Ezra, M. Feldman, and O. Friedler, “A general framework for endowment effects in combinatorial markets,” *SIGecom Exch.*, vol. 18, no. 2, pp. 38–44, 2020.  DOI: 10.1145/3440968.3440973.
- 4 T. Ezra, M. Feldman, T. Roughgarden, and W. Suksompong, “Pricing multi-unit markets,” *ACM Trans. Economics and Comput.*, vol. 7, no. 4, 20:1–20:29, 2020.  DOI: 10.1145/3373715.



### Conference Proceedings

- 1 B. Berger, T. Ezra, M. Feldman, and F. Fusco, “Pandora’s problem with combinatorial cost,” in *Proceedings of the 24th ACM Conference on Economics and Computation, EC 2023, London, United Kingdom, July 9–12, 2023*, K. Leyton-Brown, J. D. Hartline, and L. Samuelson, Eds., ACM, 2023, pp. 273–292.  DOI: 10.1145/3580507.3597699.
- 2 P. Dütting, T. Ezra, M. Feldman, and T. Kesselheim, “Multi-agent contracts,” in *Proceedings of the 55th Annual ACM Symposium on Theory of Computing, STOC 2023, Orlando, FL, USA, June 20–23, 2023*, B. Saha and R. A. Servedio, Eds., ACM, 2023, pp. 1311–1324.  DOI: 10.1145/3564246.3585193.
- 3 T. Ezra, M. Feldman, N. Gravin, and Z. G. Tang, ““who is next in line?” on the significance of knowing the arrival order in bayesian online settings,” in *Proceedings of the 2023 ACM-SIAM Symposium on Discrete Algorithms, SODA 2023, Florence, Italy, January 22–25, 2023*, N. Bansal and V. Nagarajan, Eds., SIAM, 2023, pp. 3759–3776.  DOI: 10.1137/1.9781611977554.CH145.
- 4 T. Ezra and T. Garbuz, “The importance of knowing the arrival order in combinatorial bayesian settings,” in *Web and Internet Economics - 19th International Conference, WINE 2023, Shanghai, China, December 4–8, 2023, Proceedings*, J. Garg, M. Klimm, and Y. Kong, Eds., ser. Lecture Notes in Computer Science, vol. 14413, Springer, 2023, pp. 256–271.  DOI: 10.1007/978-3-031-48974-7\_15.
- 5 T. Ezra, S. Leonardi, R. Reiffenhäuser, M. Russo, and A. Tsigonias-Dimitriadis, “Prophet inequalities via the expected competitive ratio,” in *Web and Internet Economics - 19th International Conference, WINE 2023, Shanghai, China, December 4–8, 2023, Proceedings*, J. Garg, M. Klimm, and Y. Kong, Eds., ser. Lecture Notes in Computer Science, vol. 14413, Springer, 2023, pp. 272–289.  DOI: 10.1007/978-3-031-48974-7\_16.
- 6 M. Babaioff, T. Ezra, and U. Feige, “On best-of-both-worlds fair-share allocations,” in *Web and Internet Economics - 18th International Conference, WINE 2022, Troy, NY, USA, December 12–15, 2022, Proceedings*, K. A. Hansen, T. X. Liu, and A. Malekian, Eds., ser. Lecture Notes in Computer Science, vol. 13778, Springer, 2022, pp. 237–255.  DOI: 10.1007/978-3-031-22832-2\_14.

- 7 T. Ezra, M. Feldman, N. Gravin, and Z. G. Tang, “General graphs are easier than bipartite graphs: Tight bounds for secretary matching,” in *EC '22: The 23rd ACM Conference on Economics and Computation, Boulder, CO, USA, July 11 - 15, 2022*, D. M. Pennock, I. Segal, and S. Seuken, Eds., ACM, 2022, pp. 1148–1177.  DOI: 10.1145/3490486.3538290.
- 8 M. Babaioff, T. Ezra, and U. Feige, “Fair and truthful mechanisms for dichotomous valuations,” in *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021, Thirty-Third Conference on Innovative Applications of Artificial Intelligence, IAAI 2021, The Eleventh Symposium on Educational Advances in Artificial Intelligence, EAAI 2021, Virtual Event, February 2-9, 2021*, AAAI Press, 2021, pp. 5119–5126.  DOI: 10.1609/AAAI.V35I6.16647.
- 9 M. Babaioff, T. Ezra, and U. Feige, “Fair-share allocations for agents with arbitrary entitlements,” in *EC '21: The 22nd ACM Conference on Economics and Computation, Budapest, Hungary, July 18-23, 2021*, P. Biró, S. Chawla, and F. Echenique, Eds., ACM, 2021, p. 127.  DOI: 10.1145/3465456.3467559.
- 10 P. Dütting, T. Ezra, M. Feldman, and T. Kesselheim, “Combinatorial contracts,” in *62nd IEEE Annual Symposium on Foundations of Computer Science, FOCS 2021, Denver, CO, USA, February 7-10, 2022*, IEEE, 2021, pp. 815–826.  DOI: 10.1109/FOCS52979.2021.00084.
- 11 T. Ezra, M. Feldman, and R. Kupfer, “On a competitive secretary problem with deferred selections,” in *Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence, IJCAI 2021, Virtual Event / Montreal, Canada, 19-27 August 2021*, Z. Zhou, Ed., ijcai.org, 2021, pp. 175–181.  DOI: 10.24963/IJCAI.2021/25.
- 12 T. Ezra, M. Feldman, and R. Kupfer, “Prophet inequality with competing agents,” in *Algorithmic Game Theory - 14th International Symposium, SAGT 2021, Aarhus, Denmark, September 21-24, 2021, Proceedings*, I. Caragiannis and K. A. Hansen, Eds., ser. Lecture Notes in Computer Science, vol. 12885, Springer, 2021, pp. 112–123.  DOI: 10.1007/978-3-030-85947-3\_8.
- 13 T. Ezra, M. Feldman, and O. Friedler, “A general framework for endowment effects in combinatorial markets,” in *EC '20: The 21st ACM Conference on Economics and Computation, Virtual Event, Hungary, July 13-17, 2020*, P. Biró, J. D. Hartline, M. Ostrovsky, and A. D. Procaccia, Eds., ACM, 2020, pp. 499–500.  DOI: 10.1145/3391403.3399516.
- 14 T. Ezra, M. Feldman, N. Gravin, and Z. G. Tang, “Online stochastic max-weight matching: Prophet inequality for vertex and edge arrival models,” in *EC '20: The 21st ACM Conference on Economics and Computation, Virtual Event, Hungary, July 13-17, 2020*, P. Biró, J. D. Hartline, M. Ostrovsky, and A. D. Procaccia, Eds., ACM, 2020, pp. 769–787.  DOI: 10.1145/3391403.3399513.
- 15 T. Ezra, M. Feldman, E. Neyman, I. Talgam-Cohen, and S. M. Weinberg, “Settling the communication complexity of combinatorial auctions with two subadditive buyers,” in *60th IEEE Annual Symposium on Foundations of Computer Science, FOCS 2019, Baltimore, Maryland, USA, November 9-12, 2019*, D. Zuckerman, Ed., IEEE Computer Society, 2019, pp. 249–272.  DOI: 10.1109/FOCS.2019.00025.
- 16 T. Ezra, M. Feldman, and I. Nehama, “Prophets and secretaries with overbooking,” in *Proceedings of the 2018 ACM Conference on Economics and Computation, Ithaca, NY, USA, June 18-22, 2018*, É. Tardos, E. Elkind, and R. Vohra, Eds., ACM, 2018, pp. 319–320.  DOI: 10.1145/3219166.3219211.
- 17 T. Ezra, M. Feldman, T. Roughgarden, and W. Suksompong, “Pricing multi-unit markets,” in *Web and Internet Economics - 14th International Conference, WINE 2018, Oxford, UK, December 15-17, 2018, Proceedings*, G. Christodoulou and T. Harks, Eds., ser. Lecture Notes in Computer Science, vol. 11316, Springer, 2018, pp. 140–153.  DOI: 10.1007/978-3-030-04612-5\_10.
- 18 A. Eden, T. Ezra, and M. Feldman, “Pricing social goods,” in *25th Annual European Symposium on Algorithms, ESA 2017, September 4-6, 2017, Vienna, Austria*, K. Pruhs and C. Sohler, Eds., ser. LIPIcs, vol. 87, Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2017, 35:1–35:14.  DOI: 10.4230/LIPICS.ESA.2017.35.

- 19 A. Eden, T. Ezra, and M. Feldman, “Pricing social goods,” in *Proceedings of the 12th workshop on the Economics of Networks, Systems and Computation, NetEcon@EC 2017, Cambridge, MA, USA, June 26-30, 2017*, V. Conitzer and R. Guérin, Eds., ACM, 2017, 10:1.  DOI: 10.1145/3106723.3106733.

## Pre-prints

- 1 G. Birmpas, T. Ezra, S. Leonardi, and M. Russo, “Fair division with interdependent values,” 2023.  DOI: 10.48550/ARXIV.2305.14096. arXiv: 2305.14096.
- 2 T. Ezra, M. Feldman, and M. Schlesinger, “On the (in)approximability of combinatorial contracts,” 2023.  DOI: 10.48550/ARXIV.2311.18425. arXiv: 2311.18425.