

DANIEL HALPERN

300 Buchanan St, San Francisco, CA | +1 (607) 227-4045 | dhalpern@google.com | https://daniel-halpern.com

PROFESSIONAL APPOINTMENTS

Google Research
Research Scientist

Mountain View, CA
Jul. 2025–

EDUCATION

Harvard University
Ph.D. in Computer Science
• Advisor: Ariel D. Procaccia

Cambridge, MA
Aug. 2020–Jun. 2025

University of Toronto
B.Sc. in Computer Science with High Distinction

Toronto, ON
Sep. 2016–Jun. 2020

CONFERENCE PUBLICATIONS

(α): alphabetical author order, (r): random author order

- C23. Pairwise Calibrated Rewards for Pluralistic Alignment.
(α) D. Halpern, E. Micha, I. Shapira, and A. D. Procaccia.
In *Proceedings of the 39th Conference on Neural Information Processing Systems (NeurIPS)*, 2025.
- C22. Online Envy Minimization and Multicolor Discrepancy: Equivalences and Separations.
(α) D. Halpern, A. Psomas, P. Verma, and D. Xie.
In *Proceedings of the 26th ACM Conference on Economics and Computation (EC)*, 2025.
- C21. The Proportional Veto Principle for Approval Ballots.
(α) D. Halpern, A. D. Procaccia, and W. Suksompong.
In *Proceedings of the 34th International Joint Conference on Artificial Intelligence (IJCAI)*, 2025.
- C20. Federated Assemblies.
(α) D. Halpern, A. D. Procaccia, E. Shapiro, and N. Talmon.
In *Proceedings of the 39th AAAI Conference on Artificial Intelligence (AAAI)*, 2025.
★ Oral presentation (4.6% of submissions)
- C19. Axioms for AI Alignment from Human Feedback.
(α) L. Ge, D. Halpern, E. Micha, A. D. Procaccia, I. Shapira, Y. Vorobeychik, and J. Wu.
In *Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS)*, 2024.
★ Spotlight presentation (2.1% of submissions)
- C18. Computing Voting Rules with Elicited Incomplete Votes.
(α) D. Halpern, S. Hossain, and J. Tucker-Foltz.
In *Proceedings of the 25th ACM Conference on Economics and Computation (EC)*, 2024.
- C17. On the Existence of Envy-Free Allocations Beyond Additive Valuations.
(α) G. Benadè, D. Halpern, A. Psomas, and P. Verma.
In *Proceedings of the 25th ACM Conference on Economics and Computation (EC)*, 2024.
- C16. Metric Distortion with Elicited Pairwise Comparisons.
(α) S. Ebadian, D. Halpern, and E. Micha.
In *Proceedings of the 33rd International Joint Conference on Artificial Intelligence (IJCAI)*, 2024.
- C15. Optimal Engagement-Diversity Tradeoffs in Social Media.
(α) F. Baumann, D. Halpern, I. Rahwan, I. Shapira, A. D. Procaccia, and M. Wüthrich.
In *Proceedings of the 33rd ACM Web Conference (WWW)*, 2024.
- C14. Strategyproof Voting under Correlated Beliefs.
(α) D. Halpern, R. Li, and A. D. Procaccia.
In *Proceedings of the 37th Conference on Neural Information Processing Systems (NeurIPS)*, 2023.
- C13. Smoothed Analysis of Social Choice Revisited.
(α) B. Flanigan, D. Halpern, and A. Psomas.
In *Proceedings of the 19th Conference on Web and Internet Economics (WINE)*, 2023.
- C12. In Defense of Liquid Democracy.
(α) D. Halpern, J. Y. Halpern, A. Jadbabaie, E. Mossel, A. D. Procaccia, and M. Revel.
In *Proceedings of the 24th ACM Conference on Economics and Computation (EC)*, 2023.
- C11. Representation with Incomplete Votes.
(α) D. Halpern, G. Kehne, A. D. Procaccia, J. Tucker-Foltz, and M. Wüthrich.
In *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI)*, 2023.
- C10. Dynamic Fair Division with Partial Information.

- (α) G. Benadè, D. Halpern, and A. Psomas.
In *Proceedings of the 36th Conference on Neural Information Processing Systems (NeurIPS)*, 2022.
- C9. Liquid Democracy in Practice: An Empirical Analysis of its Epistemic Performance.
M. Revel, D. Halpern, A. Berinsky, and A. Jadbabaie.
In *Proceedings of the 2nd ACM conference on Equity and Access in Algorithms, Mechanisms, Optimization (EAAMO)*, 2022.
- C8. Distortion in Voting with Top-t Preferences.
(α) A. Borodin, D. Halpern, M. Latifian, and N. Shah.
In *Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI)*, 2022.
- C7. Can Buyers Reveal for a Better Deal?.
(α) D. Halpern, G. Kehne, and J. Tucker-Foltz.
In *Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI)*, 2022.
- C6. How Many Representatives Do We Need? The Optimal Size of an Epistemic Congress.
(r) M. Revel, T. Lin, and D. Halpern.
In *Proceedings of the 36th AAAI Conference on Artificial Intelligence (AAAI)*, 2022.
- C5. Fair and Efficient Resource Allocation with Partial Information.
(α) D. Halpern and N. Shah.
In *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI)*, 2021.
- C4. Aggregating Binary Judgments Ranked By Accuracy.
(α) D. Halpern, G. Kehne, D. Peters, A. D. Procaccia, N. Shah, and P. Skowron.
In *Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI)*, 2021.
- C3. Fair Division with Binary Valuations: One Rule to Rule Them All.
(α) D. Halpern, A. D. Procaccia, A. Psomas, and N. Shah.
In *Proceedings of the 16th Conference on Web and Internet Economics (WINE)*, 2020.
- C2. Resolving the Optimal Metric Distortion Conjecture.
(α) V. Gkatzelis, D. Halpern, and N. Shah.
In *Proceedings of the 61st Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, 2020.
★ Invited to the EC 2021 plenary session: Highlights Beyond EC
- C1. Fair Division with Subsidy.
(α) D. Halpern and N. Shah.
In *Proceedings of the 12th International Symposium on Algorithmic Game Theory (SAGT)*, 2019.

JOURNAL ARTICLES

(α): alphabetical author order

- J2. Dynamic Fair Division with Partial Information.
(α) G. Benadè, D. Halpern, and A. Psomas.
In *Operations Research (OR)*. Forthcoming.
- J1. Tracking Truth with Liquid Democracy.
(α) A. Berinsky, D. Halpern, J. Y. Halpern, A. Jadbabaie, E. Mossel, A. D. Procaccia, and M. Revel.
In *Management Science (MS)*. Forthcoming.

SELECTED HONORS AND AWARDS

• Siebel Scholarship	2024
• NSF Graduate Research Fellowship	2021
• University of Toronto Computer Science Undergraduate Research Award	2020
• Harold Willet Stewart Memorial Scholarship	2020
• Anna And Alex Beverly Memorial Fellowship	2020
• Samuel Beatty In Course Scholarship	2019
• C. L. Burton Scholarship For Mathematics and Physical Sciences	2019
• Dr. James A. & Connie P. Dickson Scholarship in Science & Mathematics	2018
• Alan Milne McCombie Scholarship	2017
• University of Toronto President's Scholars of Excellence Program	2016

TEACHING EXPERIENCE

GEC Academy

Teaching Fellow

- Mathematics for Economics

Harvard University

Online

Summer 2024

Cambridge, MA

Teaching Fellow

- Optimized Democracy (CS238)

University of Toronto

Undergraduate Teaching Assistant

- Data Structures and Analysis (CSC263)
- Algorithm Design, Analysis & Complexity (CSC373)

Spring 2022

Toronto, ON

Spring 2020

SERVICE

PC Member: AAAI ('23, '24, '25), IJCAI ('23, '24), SAGT ('23), NeurIPS ('24)

Journal Reviewer: ARTINT ('21, '22, '24, '25), JAAMAS ('21, '21, '21, '22), MOR ('22, '23), MSS ('21, '22, '23), TEAC ('25)

Subreviewer: AAMAS ('25), EAAMO ('22), SAGT ('21), SODA ('24), STOC ('25)

INVITED TALKS

Social Choice and Welfare Seminar

September, 2025

A Social Choice Perspective on AI Alignment

National University of Singapore Workshop on Algorithmics of Fair Division and Social Choice

December, 2024

Aggregating Preferences with Limited Queries

Cornell Theory Seminar

November, 2024

Aggregating Preferences with Limited Queries

FOCS Workshop on Distortion in Social Choice

October, 2024

Optimal Randomized Utilitarian Distortion

INFORMS Annual Meeting

October, 2024

Tracking Truth with Liquid Democracy

University of Chicago Computer Science Colloquium

October, 2024

Aggregating Preferences with Limited Queries

Carnegie Mellon Formal Epistemology Lecture Series

September, 2024

Aggregating Preferences with Limited Queries

Oxford Algorithmic Game Theory Seminar

June, 2024

Computing Voting Rules with Elicited Incomplete Votes

MSRI/SLMath Social Choice Seminar

November, 2023

Resolving the Optimal Metric Distortion Conjecture

INFORMS Annual Meeting

October, 2023

Representation with Incomplete Votes

HalpernFest at Cornell University

June, 2023

In Defense of Liquid Democracy

McGill Bellairs Workshop on Multi-Agent Systems

March, 2023

Representation with Incomplete Votes

COMSOC Video Seminar

February, 2023

Representation with Incomplete Votes

LAMSADE Mini-Workshop on Cooperative Games, Social Choice, and Fair Division

September, 2022

In Defense of Liquid Democracy

Highlights Beyond EC

July, 2021

Resolving the Optimal Metric Distortion Conjecture

Drexel Theory Seminar

May, 2021

Fair and Efficient Resource Allocation with Partial Information

Cornell Theory Seminar

November, 2020

Resolving the Optimal Metric Distortion Conjecture

Harvard EconCS Seminar

September, 2020

Resolving the Optimal Metric Distortion Conjecture