

Jeremy Vollen

Curriculum Vitae

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Education

- 2021-2025 **PhD in Computer Science**
Department of Computer Science, University of New South Wales
- 2019-2020 **Graduate-level Coursework**, *Economics and Computation; Advanced Topics in EC*
Department of Informatics, University of Zürich
- 2013-2016 **BA in Computational & Applied Mathematics (magna cum laude)**
Department of Computational Applied Mathematics & Operations Research, Rice University

Research Interests

computational social choice, algorithmic game theory, algorithmic fairness

Journal Publications

- 📄 2025 **Approximately Fair and Population Consistent Budget Division via Simple Payment Schemes**, Haris Aziz, Patrick Lederer, Xinhang Lu, Mashbat Suzuki, Jeremy Vollen, *Games and Economic Behavior*, 154:208-225
- 📄 2025 **Coordinating Monetary Contributions in Participatory Budgeting**, Haris Aziz, Sujit Gujar, Manisha Padala, Mashbat Suzuki, Jeremy Vollen, *Autonomous Agents and Multi-Agent Systems*, 39(34)

Conference Publications

- 📄 2025 **Neighborhood Stability in Assignments on Graphs**, Haris Aziz, Grzegorz Lisowski, Mashbat Suzuki, Jeremy Vollen, *WINE*
- 📄 2024 **Approximately Fair and Population Consistent Budget Division via Simple Payment Schemes**, Haris Aziz, Patrick Lederer, Xinhang Lu, Mashbat Suzuki, Jeremy Vollen, *EC*
- 📄 2024 **Proportionally Representative Clustering**, Haris Aziz, Barton E. Lee, Sean Morota Chu, Jeremy Vollen, *WINE*
- 📄 2024 **Maximum Flow is Fair: A Network Flow Approach to Committee Voting**, Mashbat Suzuki, Jeremy Vollen, *EC*
- 📄 2024 **Fair Lotteries for Participatory Budgeting**, Haris Aziz, Xinhang Lu, Mashbat Suzuki, Jeremy Vollen, Toby Walsh, *AAAI*
- 📄 2023 **Best-of-Both-Worlds Fairness in Committee Voting**, Haris Aziz, Xinhang Lu, Mashbat Suzuki, Jeremy Vollen, Toby Walsh, *WINE*
- 📄 2023 **Coordinating Monetary Contributions in Participatory Budgeting**, Haris Aziz, Sujit Gujar, Manisha Padala, Mashbat Suzuki, Jeremy Vollen, *SAGT*

Selected research talks

- 2022 **Multidisciplinary Workshop on Advances in Preference Handling Workshop**, “*Best-of-Both-Worlds Fairness in Committee Voting*”, Macau, China
- 2022 **Centre for Mathematical Social Sciences Summer Workshop**, “*Coordinating Monetary Contributions for Participatory Budgeting*”, University of Auckland
- 2022 **AI-OPT: Workshop on AI-based Optimisation**, “*A Novel Tractable Case for the Set-Union Knapsack Problem*”, University of Melbourne

Service

Editorial Board, *JAIR*

Program Committee, *AAMAS*, *EC*

Selected misc. research

- 📄 2020 **Family Life in Lockdown**, Pietro Biroli, Steven Bosworth, Marina Della Giusta, Amalia Di Girolamo, Sylvia Jaworska, *Frontiers in Psychology*
- 📄 2018 **The Economic Potential for Energy Storage in Nevada**, Ryan Hledik, Judy Chang, Roger Leuken, Johannes Pfeifenberger, John Imon Pedtke, Jeremy Vollen, prepared for Public Utilities Commission of Nevada and Nevada’s Governor’s Office of Energy

Teaching Experience

- 2026 **Preference Aggregation for AI Alignment**, Co-lecturer, Northwestern University
- 2023-2024 **Game Theory**, Teaching assistant, UNSW Sydney

Professional Experience

- 2025-Present **Postdoctoral Scholar**, Department of Computer Science, Northwestern University
Research focusing on AI applications of social choice, advising students, teaching.
- 2019-2021 **Pre-doctoral Research Fellow**, Department of Economics, University of Zürich
Survey design, data pipeline, econometrics, and causal inference in health economics.
- 2017-2019 **Research Analyst**, Brattle Group
Constrained optimization, power market simulation, project management.

Selected awards

- 2024 **Google Travel Grant**
- 2017 **BP Supply & Trading Scholarship**

Skills

- Statistical analysis Python, R
- Experimental design Experience with survey design and econometric analysis in economics research.
- L^AT_EX

References

- Dr. Edith Elkind**, Northwestern University, edith.elkind@northwestern.edu
- Dr. Haris Aziz**, University of New South Wales, haris.aziz@unsw.edu.au

Dr. Toby Walsh, University of New South Wales, t.walsh@unsw.edu.au