ELISABETH PAULSON

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elisabethpaulson.github.io

RESEARCH INTERESTS

Analytics for social good, public sector operations

ACADEMIC POSITIONS

Harvard Business School, Boston, MA
Technology and Operations Management Unit
2022 – Assistant Professor
2021 – 2022 Visiting Postdoctoral Fellow

Stanford University, Stanford, CA
2021 – 2022 Postdoctoral Fellow, Immigration Policy Lab

EDUCATION

2016 – 2021 **Massachusetts Institute of Technology**, Cambridge, MA
PhD in Operations Research
Advisors: Prof. Retsef Levi and Prof. Georgia Perakis
Thesis: *Healthy Food Access and Consumption: Informing Interventions Through Analytics*
Supported by the NSF Graduate Research Fellowship (2016-2019)

The Pennsylvania State University, Schreyer Honors College, University Park, PA
2013 – 2015 M.A. in Mathematics
2011 – 2015 B.A. in Mathematics
2011 – 2015 B.A. in Statistics

PRE-PRINT PAPERS

Heterogeneous Treatment Effects in Panel Data. R. Levi, E. Paulson, G. Perakis, and E. Zhang. Major revision at *M&SOM*.
◊ Accepted to the 2025 Sustainable Operations SIG-Day Conference

Dynamic Matching with Post-Allocation Service and its Application to Refugee Resettlement. K. Bansak, S. Lee, V. Manshadi, E.Paulson, and R. Niazadeh. Major revision at *Management Science*.
◊ Accepted to the *25th ACM Conference on Economics and Computation* (EC '24)
◊ Accepted to the *5th Annual Symposium on Foundations of Responsible Computing*} (FORC '24)
◊ Accepted for Presentation at *9th Marketplace Innovation Workshop* (MIW '24)

Group Fairness in Dynamic Refugee Assignment. D. Freund, T. Lykouris, E. Paulson, B. Sturt, and W. Weng. Submitted.
◊ Accepted to the *24th ACM Conference on Economics and Computation* (EC '23)

◊ Accepted to the *4th annual Symposium on Foundations of Responsible Computing* (FORC '23)

Designing Inclusive Offerings. R. Levi, E. Paulson, and G. Perakis. Minor revision in *Management Science*.

Enhancing the benefits of dual sourcing with reverse information sharing. A. Jagmohan, P. Harsha, R. Levi, E. Paulson, and G. Perakis. Major revision in *M&SOM*.

PUBLISHED PAPERS

Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations. R. Levi, E. Paulson, and G. Perakis. *Management Science* (2025, Accepted).

◊ Accepted for oral presentation, Workshop on Mechanism Design for Social Good (2020)

Public Attitudes on Performance for Algorithmic and Human Decision-Makers. K. Bansak and E. Paulson. *PNAS Nexus* (2024).

◊ Accepted to the *7th AAAI Conference on AI, Ethics, and Society* (AIES '24)

Learning Under Random Distributional Shifts. K. Bansak, E. Paulson, and D. Rothenhäusler. Proceedings of the *International Conference on Artificial Intelligence and Statistics* (2024) (AISTATS '24).

Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing. K. Bansak and E. Paulson. *Operations Research* (2024)

◊ Extended abstract appeared in the *23rd ACM Conference on Economics and Computation* (EC '22)

Public Health Risks Arising from Food Supply Chains: Challenges and Opportunities. L. Chen, D. Guttieres, R. Levi, E. Paulson, G. Perakis, N. Renegar, S. Springs. *Naval Research Logistics*, Special Issue on OR Models for Developmental Studies (2021).

Cooperation Can Emerge in Prisoner's Dilemma from a Multi-Species Predator Prey Replicator Dynamic. E. Paulson and C. Griffin. *Mathematical Biosciences* (2016), 178 p.56-62.

A Game Theoretic Model for Resource Allocation Among Countermeasures with Multiple Attributes. E. Paulson, I. Linkov, and J. Keisler. *European Journal of Operations Research* (2016), 252 p.610-622. DOI: 10.1016/j.ejor.2016.01.026.

Deriving and Optimally Deceptive Policy in Two-Player Iterated Games. E. Paulson and C. Griffin. Proceedings of the *American Control Conference* (2016).

Optimal Process Control of Symbolic Transfer Functions. C. Griffin and E. Paulson. Proceedings of *Feedback Computing* (2015).

Better Timing of Cyber Conflict. E. Paulson and C. Griffin. *Third ASE Conference on Cyber Security* (2014).

TEACHING MATERIALS

E. Paulson and T. Quinn. "Resilience Lab." Harvard Business School Case 625-078, March 2025.

E. Paulson, C. T. Ryan, and N. Zhang. "VOCEL(B): Powered by VOCEL." Harvard Business School Supplement 625-082, January 2025.

E. Paulson, C. T. Ryan, and N. Zhang. "VOCEL(A): Democratizing Brain Science for Early Childhood Education." Harvard Business School Case 625-081, January 2025. (Revised April 2025.)

E. Paulson and M. Toffel. "Market by Met Council: Revolutionizing Food Pantries in the Digital Age." Harvard Business School Case 624-060, May 2024.

TEACHING AT HBS

2022 – 2024	Technology and Operations Management (Core first-year MBA class)
2024 – present	Operations and Supply Chain Management, Harvard Business Analytics Program (Executive education course, 9 sessions/year)
2023, 2024	Harvard Business Analytics Program (1 session per year)
2023	Summer Venture in Management Program (2 sessions)

OTHER TEACHING

2023	Harvard University, SOCIOL 1186: Refugees in Global Perspective Guest lecture
2022	NYU Stern PhD Seminar Course Guest lecture
2020	MIT, 15.370 - Data, Models, and Decisions Teaching assistant for core Executive MBA class
2020	MIT, 15.S60 - Computing in Optimization and Statistics 3-hour session on machine learning in R for PhD students
2020	MIT, 15.S41 - Software Tools for Business Analytics 3-hour session on machine learning in R for MIT undergrads
2018	MIT, 15.734 - Intro to Operations Management Teaching assistant for core Executive MBA class
2018, 2019	MIT, Microsoft Excel Training for Executive MBA students Three 3-hour sessions each spring
2018	MIT, 15.731 - Risk Management Teaching assistant for Executive MBA elective, two full-day sessions

AWARDS & HONORS

2024 1st place, Finalist, MSOM Best Student Paper Prize, 2024, **Entrant: S. Lee**
1st place, Michael H. Rothkopf Junior Researcher Paper Prize (awarded by INFORMS Auctions and Market Design Section), 2024, **Entrant: S. Lee**

Dynamic Matching with Post-Allocation Service and its Application to Refugee Resettlement

2021 2nd place, POMS College of Supply Chain Management Best Student Paper Competition
Enhancing the Benefits of Dual Sourcing with Reverse Information Sharing

2021 Finalist, POMS College of Sustainable Operations Best Student Paper Competition
Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations

2019 Finalist, IBM Best Student Paper Award
Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations

2016 – 2019 NSF Graduate Fellowship

2011 – 2015 Gerard L. Bayles Memorial Scholarship

2014 Kermit C. Anderson Memorial Award in Mathematics

2013 Mary Lister McCammon Award in Mathematics

2012 Merit Scholarship, Mathematics Advanced Study Semester

PRESENTATIONS

Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing
2025 Invited seminar, University of Toronto Rotman seminar
2024 Invited talk, TTIC Workshop on Data-Driven Decision Processes
2024 Invited seminar, Wharton OID seminar
2024 Invited seminar, Microsoft Research New England
2024 Invited seminar, Northwestern Kellogg seminar
2024 Invited seminar, Harvard Applied Statistics workshop
2023 Invited seminar, Workshop on Migration and Forced Displacement
2023 2nd Workshop on AI & Analytics for Social Good
2023 Invited seminar, Northeastern, D'Amore-McKim School of Business
2023 Invited seminar, Harvard EconCS seminar
2022 EC '22
2022 MSOM '22
2021 Invited seminar, London Business School

Group Fairness in Dynamic Refugee Assignment
2022 INFORMS Annual Meeting '22

Short-term Outcomes for Long-term Goals in Dynamic Refugee Matching
2021 Invited seminar, Stanford Causal Science Conference

Healthy Food Consumption: Empirical Analysis and Optimization Models of Government Interventions
2021 Invited seminar, Penn State College of Medicine

Optimizing Group-level Food Policy Interventions
2021 Invited seminar, Stanford GSB

2021 Invited seminar, USC Marshall Business School
2021 Invited seminar, UCLA Anderson School of Business
2021 Invited seminar, Georgia Tech ISyE
2021 Invited seminar, Naval Postgraduate School
2021 Invited seminar, Harvard Business School
2021 Invited seminar, Columbia Business School
2020 Invited seminar, UBC Sauder School of Business
2020 Invited seminar, University of Minnesota ISyE
2020 Invited seminar, Boston College Carrol School of Management
2020 Invited seminar, UW Madison Wisconsin School of Business
2020 Invited seminar, UC Berkeley Haas School of Business
2020 Invited seminar, Dartmouth Tuck School of Business
2020 Invited seminar, MIT Sloan School of Management

Reverse Information Sharing: Reducing Waste and Costs in Supply Chains with Yield Uncertainty
2021 POMS '21
2020 INFORMS Annual Meeting '20

Fair Group-level Intervention Bundles
2021 INFORMS Annual Meeting '21
2020 INFORMS Annual Meeting '20

Optimal Interventions for Healthy Food Consumption Among Low Income Households
2021 POMS '21
2020 Kellogg-Wharton OM Workshop
2020 Workshop on Mechanism Design for Social Good '20
2019 INFORMS Annual Meeting '19
2019 Invited seminar, MIT Sloan Health Systems Innovation Seminar Series
2018 INFORMS Annual Meeting '18

Impact of Access and Value on Fresh Food Consumption: Policy Implications
2018 MSOM '18
2017 INFORMS '17

Choosing What to Protect, and How: Resource Allocation Among Countermeasures With Multiple Attributes
2014 INFORMS '14

INDUSTRY EXPERIENCE

2019 – 2019 **IBM Blockchain Solutions**, Yorktown Heights, NY
Research Intern

2015 – 2016 **Booz Allen Hamilton**, Annapolis Junction, MD
Data Scientist

Summer 2014 **Bates White**, Washington, D.C.
Summer consultant

Summer 2013	**U.S. Army Engineer Research and Development Center**, Concord, MA Research intern, DHS HS-STEM Summer Internship program

PROFESSIONAL SERVICE

	Ad-hoc Reviewer for *Management Science*, *M\&SOM*, *Operations Research*, *POM*
2024	Moderator for the 33rd Women in Business Conference at HBS
2024	Program Committee, ACM EC Conference
2022 – 2024	Area Chair, ACM EAAMO Conference
2023-2024	Session Chair, INFORMS Annual Conference
2023	Program Committee, AAAI/ACM AIES
2024	Judge for the POMS College of Sustainable Operations Student Paper Competition
2021, 2025	Program Committee, ACM EAAMO Conference
2021, 2024	Judge for the INFORMS Public Sector OR Best Paper Award