

Computing & Data Sciences
Boston University
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Kira Goldner

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APPOINTMENTS:

Shibulal Family Career Development Assistant Professor July 2021 – Present
Faculty of Computing & Data Sciences
Boston University, Boston, MA

Postdoctoral Research Fellow July 2019 – June 2021
NSF Division of Mathematical Sciences and Columbia Data Science Institute
Columbia University, New York, NY
Host: Tim Roughgarden

Research Fellow Aug. 2019 – Oct. 2019
Online and Matching-Based Market Design Program
The Simons Institute, Berkeley, CA

EDUCATION:

University of Washington, Seattle, WA 2014 – 2019
Ph.D. in Computer Science and Engineering
Dissertation: Mechanism Design for a Complex World: Rethinking Standard Assumptions
Advisor: Anna Karlin
Masters in Computer Science and Engineering 2016
Advisor: Anna Karlin

Oberlin College, Oberlin, OH 2010 – 2014
Bachelor of Arts: Mathematics Major, Computer Science Minor

Budapest Semesters in Mathematics, Budapest, Hungary Fall 2013
Honors, Study Abroad

RESEARCH INTERESTS:

My interests lie in algorithmic mechanism design and approximation, in particular, within (1) societal-focused foundations of mechanism design for social good, (2) the interdependent values model, (3) simple and robust mechanism design, and (4) foundational revenue maximization problems at the frontier of tractability.

AWARDS, SCHOLARSHIPS, AND DISTINCTIONS:

NSF CAREER Award 2025
ACM-EC “Highlights Beyond EC” 2024
100 Brilliant Women in AI Ethics 2023
Shibulal Family Career Development Professorship 2021-24 2021
ACM-EC Best Presentation by a Student or Postdoctoral Researcher 2020
NSF Mathematical Sciences Postdoctoral Research Fellowship 2019
Columbia Data Science Institute Postdoctoral Fellowship
ACM-EC Best Paper with a Student Leader Author
Simons Institute Research Fellowship for Online and Matching Based Market-Design
Microsoft Research PhD Fellowship 2017
Google Anita Borg Memorial Scholarship 2016

CONFERENCE PUBLICATIONS:

Bilateral Trade with Interdependent Values: Information vs. Approximation, with Shahar Dobzinski, Alon Eden, Ariel Shaulker, and Thodoris Tsilivis. In *Proceedings of the 26th ACM Conference on Economics and Computation* (EC 2025).

To Regulate or Not to Regulate: Using Revenue Maximization Tools to Maximize Consumer Utility, with Meryem Essaidi and S. Matthew Weinberg. In *Proceedings of the 17th International Symposium on Algorithmic Game Theory* (SAGT 2024).

Non-Adaptive Matroid Prophet Inequalities, with Shuchi Chawla, Anna R. Karlin, and J. Benjamin Miller. In *Proceedings of the 17th International Symposium on Algorithmic Game Theory* (SAGT 2024).

Constant Approximation for Private Interdependent Valuations, with Alon Eden, Michal Feldman, Simon Mauras, and Divyarthi Mohan. In *Proceedings of the 2023 IEEE 64th Annual Symposium on Foundations of Computer Science (FOCS 2023)*.

Invited Presentation at Highlights Beyond EC 2024.

Private Interdependent Valuations, with Alon Eden and Shuran Zheng. In *Proceedings of the 33rd ACM-SIAM Symposium on Discrete Algorithms* (SODA 2022).

On Multi-Dimensional Gains from Trade Maximization, with Yang Cai, Steven Ma, and Mingfei Zhao. In *Proceedings of the 32nd ACM-SIAM Symposium on Discrete Algorithms* (SODA 2021).

Optimal Mechanism Design for Single-Minded Agents, with Nikhil R. Devanur, Raghuvansh R. Saxena, Ariel Schwartzman, and S. Matthew Weinberg. In *Proceedings of the 21st ACM Conference on Economics and Computation* (EC 2020).

Best Presentation by a Student or Postdoctoral Researcher.

Reducing Inefficiency in Carbon Auctions with Imperfect Competition, with Nicole Immorlica and Brendan Lucier. In *Proceedings of the 11th Conference on Innovations in Theoretical Computer Science* (ITCS 2020).

Bulow-Klemperer-Style Results for Welfare-Maximization in Two-Sided Markets, with Moshe Babaioff and Yannai A. Gonczarowski. In *Proceedings of the 31st ACM-SIAM Symposium on Discrete Algorithms* (SODA 2020).

Combinatorial Auctions with Interdependent Valuations: SOS to the Rescue, with Alon Eden, Michal Feldman, Amos Fiat, and Anna R. Karlin. In *Proceedings of the 20th ACM Conference on Economics and Computation* (EC 2019).

Best Paper with a Student Lead Author.

Simple and Approximately Optimal Pricing for Proportional Complementarities, with Yang Cai, Nikhil R. Devanur, and R. Preston McAfee. In *Proceedings of the 20th ACM Conference on Economics and Computation* (EC 2019).

Interdependent Values without Single-Crossing, with Alon Eden, Michal Feldman, and Amos Fiat. In *Proceedings of the 19th ACM Conference on Economics and Computation* (EC 2018).

Revenue Maximization with an Uncertainty-Averse Buyer, with Shuchi Chawla, J. Benjamin Miller, and Emmanouil Pountourakis. In *Proceedings of the 29th ACM-SIAM Symposium on Discrete Algorithms* (SODA 2018).

A Prior-Independent Revenue-Maximizing Auction for Multiple Additive Bidders, with Anna Karlin. In *Proceedings of the 12th Conference on Web and Internet Economics* (WINE 2016).

The FedEx Problem, with Amos Fiat, Anna Karlin, and Elias Koutsoupias. In *Proceedings of the 17th ACM Conference on Economics and Computation* (EC 2016).

Minimal Partial Languages and Automata, with F. Blanchet-Sadri and Aidan Shackleton. In *Proceedings of the 19th International Conference on Implementation and Applications of Automata* (CIAA 2014).

JOURNAL PUBLICATIONS:

Combinatorial Auctions with Interdependent Valuations: SOS to the Rescue, with Alon Eden, Michal Feldman, Amos Fiat, and Anna R. Karlin. In *Mathematics of Operations Research*, 2023.

Minimal Partial Languages and Automata, with F. Blanchet-Sadri and Aidan Shackleton. In *RAIRO – Theoretical Informatics and Applications*, Volume 51, Number 1, 2017.

PREPRINTS, WORKSHOP PUBLICATIONS, AND BULLETINS:

Multidimensional Bayesian Utility Maximization: Tight Approximations to Welfare, with Taylor Lundy. *Preprint 2024, in submission.*

A Report on YoungEC ‘19. In *ACM SIGecom Exchanges*, 18.1, July 2020.

Mechanism Design for Social Good, with Rediet Abebe. In *ACM SIGAI AI Matters*, 4.3, October 2018.

A Report on the Workshop on Mechanism Design for Social Good, with Rediet Abebe. In *ACM SIGecom Exchanges*, 16.2, June 2018.

GRANTS:

NSF CAREER 01/2025-12/2029

Project Title: Multidimensional Utility Maximization when Ordeals are Payments

Role: PI

Amount: \$670,517

NSF Award #2228610 10/2022 – 3/2023

Project Title: Economic Resiliency through Mechanism Design and Secure Computing: MainStreetPulse: An Early Warning Platform for Monitoring and Supporting Main Street Businesses

Role: PI; joint with Mayank Varia (BU), Ziba Cranmer (BU), and Langdon White (BU)

Amount: \$50k

NSF Mathematical Sciences Postdoctoral Research Fellowship Award #1903037 7/2019 – 6/2021

Project Title: Mechanism Design for Social Good

Role: PI

Amount: \$150k

RESEARCH ADVISING:

Current PhD Students: Thodoris Tsilivis, Anh Phung

Current Postdocs: Divyarthi Mohan

Former Undergraduate Students: Michael Hyder (now PhD student, Rutgers CS)

Former Rotation Students: Freddy Reiber (2 years), Bhushan Suwal (1 year)

TEACHING:

Boston University DS 574: Algorithmic Mechanism Design

Ph.D. level course on Algorithmic Mechanism Design, new self-developed course

18 students Fall 2025

4 students, total score 4.75/5.0 Fall 2023

15 students, instructor rating 4.42/5.0 Fall 2022

Boston University DS 320: Algorithms for Data Science

Undergraduate course on algorithmic design and analysis with additional focus on techniques for big data, new self-developed course

117 students, total score 4.12/5.0 Spring 2025

72 students, total score 4.1/5.0 Spring 2024

30 students, instructor rating 4.31/5.0 Spring 2023

6 students, instructor rating 4.5/5.0 Spring 2022

RESEARCH INTERNSHIPS AND LONG-TERM VISITS:

Research Intern, Microsoft Research New England, hosted by Brendan Lucier Summer 2018

Research Intern, Microsoft Research Redmond, hosted by Nikhil Devanur Summer 2017

Visitor, The Simons Institute, hosted by the Algorithms & Uncertainty Semester Aug.–Sept. 2016

Visitor, The Simons Institute, hosted by the Economics & Computation Semester Fall 2015

INVITED TALKS:

Multidimensional Bayesian Utility Maximization

Workshop on Algorithms, Learning, and Games (ALGA 2025), Sardinia, Italy June 2025

To Regulate or Not to Regulate: Using Revenue Maximization Tools to Maximize Consumer Utility

Symposium on Algorithmic Game Theory, Amsterdam, Netherlands Sept. 2024

Non-Adaptive Matroid Prophet Inequalities

Symposium on Algorithmic Game Theory, Amsterdam, Netherlands Sept. 2024

A Recent History of Approximation for Interdependent Values

SLMath Math & CS of Market and Mechanism Design Introductory Workshop, Berkeley, CA Sept. 2023

A Constant Approximation for Private Interdependent Valuations

SLMath Math & CS of Market and Mechanism Design Connections Workshop, Berkeley, CA Sept. 2023

Workshop on Algorithms, Learning, and Games (ALGA 2023), Sicily, Italy June 2023

Mechanism Design: Toward a Positive Social Impact

ACM EC Gender Inclusion Workshop, London, UK July 2023

DIMACS Workshop on Algorithm and Mechanism Design for Achieving the UN SDGs, Rutgers, NJ May 2023

Private Interdependent Valuations

CIREQ Montreal Microeconomic Theory Conference, Montreal, CA Oct. 2022

Mechanism Design for Social Good

TCS+ Online Seminar, Virtual	May 2021
Toyota Technical Institute of Chicago Colloquium, Virtual	Mar. 2021
Boston University Faculty of CDS Colloquium, Virtual	Mar. 2021
Rutgers CS Department Colloquium, Virtual	Mar. 2021
University of Maryland CS Department Colloquium, Virtual	Feb. 2021
Ben Gurion University CS Department Colloquium, Virtual	Feb. 2021
Bar Ilan University CS Department Colloquium, Virtual	Jan. 2021
Georgia Tech School of CS Colloquium, Virtual	Jan. 2021
Northeastern School of CS Colloquium, Virtual	Jan. 2021
Cornell Operations Research and Industrial Engineering Colloquium, Virtual	Jan. 2021
Tel Aviv University Colloquium, Virtual	Jan. 2021
IDC Herzliya Colloquium, Virtual	Dec. 2020
Columbia Data Science Institute Data & Society Council, Virtual	Dec. 2020
NYU Tandon CS Department Seminar, Virtual	Oct. 2020
Worcester Polytechnic Institute CS Department Colloquia Series, Virtual	Sept. 2020
Data Science Institute and Data for Good Scholars Weekly Meetup Series, Columbia, Virtual	July 2020
Technion Game Theory Playtime Seminar, Haifa, Israel	Dec. 2019
Washington University CS Department Colloquia Series, St. Louis, MO	Nov. 2019
Workshop on Algorithms for Learning and Economics, Rhodes, Greece	July 2019
Data Science for Social Good Workshop, Georgia Tech, Atlanta, GA	Apr. 2019

Interdependent Valuations: Beyond Single-Crossing and Single-Item

1 st Annual SIGecom Winter Meeting, Virtual	Mar. 2021
MIT Algorithms and Complexity Seminar, Cambridge, MA	Oct. 2019
Stanford Theory Seminar, Palo Alto, CA	May 2019

Maximizing Gains From Trade in Two-Sided Markets

Online and Matching-Based Market Design Reunion, Simons Institute, Virtual	Mar. 2021
Weizmann Theory Seminar, Virtual	Jan. 2021
Israel Algorithmic Game Theory Seminar, Virtual	Dec. 2020
INFORMS Annual Meeting, Virtual	Nov. 2020
University of Maryland CATS Lecture Series, Virtual	Oct. 2020
Harvard TOC Seminar, Virtual	Sept. 2020

Optimal Mechanism Design for Single-Minded Agents

Conference on Web and Internet Economics, Virtual	Dec. 2020
ACM Conference on Economics and Computation, Virtual	June 2020
INFORMS Annual Meeting, Phoenix, AZ	Nov. 2018
Georgia Tech ACO Student Seminar, Atlanta, GA	Apr. 2018
UW Theory Seminar, Seattle, WA	Apr. 2018
Hebrew University of Jerusalem Computation and Economics Seminar, Jerusalem, Israel	Jan. 2018
Tel Aviv University Algorithms Seminar, Tel Aviv, Israel	Dec. 2017

Interdimensional Mechanism Design

STOC TCS Women Spotlight Workshop “Rising Star” Talk, Virtual	June 2020
Northwestern Quarterly Theory Workshop, Evanston, IL	Nov. 2018
UW Allen School Colloquium, Seattle, WA	Oct. 2018
AmosFest, Tel Aviv, Israel	Nov. 2017

Reducing Inefficiency in Carbon Auctions with Imperfect Competition

Innovations in Theoretical Computer Science, Seattle, WA	Jan. 2020
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Young Researcher Workshop on Economics and Computation, Tel Aviv University, Israel	Jan. 2020
Social Responsibility of Algorithms Interdisciplinary Workshop, Paris, France	Dec. 2019
Marketplace Innovation Workshop, Palo Alto, CA	June 2019
Plenary Talk, Data Science for Social Good Workshop, Atlanta, GA	Apr. 2019

Simple and Approximately Optimal Pricing for Proportional Complementarities

ACM Conference on Economics and Computation, Phoenix, AZ	June 2019
Minisymposium on Algorithmic Game Theory at CANADAM, Vancouver, BC, Canada	May 2019
Hebrew University of Jerusalem Computation and Economics Seminar, Jerusalem, Israel	Jan. 2019
INFORMS Annual Meeting, Phoenix, AZ	Nov. 2018

Interdependent Values without Single-Crossing

Bellairs Workshop on Algorithmic Game Theory, Barbados	Apr. 2018
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The FedEx Problem

Princeton Mechanism Design Reading Group, Princeton, NJ	Oct. 2017
Conference of the International Federation of Operational Research Societies, Quebec, Canada	July 2017
STOC Workshop on Bayesian Mechanism Design, Montreal, Canada	June 2017
Hebrew University of Jerusalem Lo Letzot Seminar, Jerusalem, Israel	Jan. 2017
Weizmann Institute Foundations of Computer Science Seminar, Rehovot, Israel	Jan. 2017
Young Researcher Workshop on Economics and Computation, Tel Aviv, Israel	Jan. 2017
UW-Madison Theory Seminar, Madison, WI	Nov. 2016
Microsoft Research Theory Seminar, Redmond, WA	Oct. 2016
UC Berkeley Theory Lunch, Berkeley, CA	Sept. 2016
Stanford University Theory Lunch, Palo Alto, CA	Sept. 2016
ACM Conference on Economics and Computation, Maastricht, Netherlands	July 2016
Google Scholar's Retreat, Mountain View, CA	June 2016
UW Theory Seminar, Seattle, WA	May 2016

Revenue Maximization with an Uncertainty-Averse Buyer

Microsoft Research Theory Lunch, Redmond, WA	Sept. 2017
UW Theory Lunch, Seattle, WA	May 2017

A Prior-Independent Revenue-Maximizing Auction for Multiple Additive Bidders

Conference on Web and Internet Economics, Montreal, Canada	Dec. 2016
UW Theory Seminar, Seattle, WA	Jan. 2016

Incentives and the Bitcoin Protocol

Heidelberg Laureate Forum: Workshop on Transactions and Blockchains, Heidelberg, Germany	Sept. 2017
UW CSE Women's Day, Seattle, WA	Jan. 2016
UW CSE Women's Day, Seattle, WA	May 2015
CRA-W Grad Cohort, San Francisco, CA	Apr. 2015

Minimal Partial Language and Automata

Conference on Implementation and Application of Automata, Germany	July 2014
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PROFESSIONAL SERVICE AND OUTREACH:

Initiatives

Founder and Director , BEACH: The Boston Economics and Computing Hub	2023-Present
<i>Uniting institutions and disciplines across Boston with a joint directory, calendar, and semesterly workshop.</i>	

Founder , Queer-in-TCS Email List	2023
Co-Organizer , Women-in-TCS Information, jointly with CATCS	2022
Co-Founder and Organizer , MD4SG: The Mechanism Design for Social Good Initiative	2016-2018
<i>A multi-institutional, interdisciplinary research initiative working to improve access to opportunity for historically undeserved and disadvantaged communities.</i>	
Workshop Organizer	
Co-Organizer , BEACH Day Spring '25: Behavioral Models in EconCS	April 2025
Co-Organizer , The 3rd Workshop on Algorithms for Learning and Economics (WALE '24)	June 2024
Co-Organizer , The 2nd Workshop on Algorithms for Learning and Economics (WALE '22)	June 2022
Social Chair , ACM Conference on Economics and Computation (EC '21)	July 2021
Steering Committee , The 4th Workshop on Mechanism Design for Social Good	Aug. 2020
Co-Organizer and PC Chair , The 2nd Workshop on Mechanism Design for Social Good	June 2018
Co-Organizer and PC Chair , The 1st Workshop on Mechanism Design for Social Good	June 2017
Executive Committee	
The ACM Conference on Equity in Algorithms, Mechanisms, and Optimization (EAAMO, by MD4SG)	2021-24
Tutorial Organizer and Presenter	
On the Menu Size of Precise and Approximate Revenue-Maximizing Auctions at EC, Ithaca, NY	June 2018
On Mechanism Design for Social Good, at WINE, Bangalore, India	Dec. 2017
Program Committees and Reviewing	
Senior Program Committee for EC '25, WINE '25	2025
External Reviewer for SODA, NSF CISE Panel	
Program Committee for CS&Law '25	2024
Senior Program Committee for EC '24	
Program Committee for SODA '24	2023
Area Chair of Program Committee for EC '23	
External Reviewer for FOCS, NSF CISE Panel	
Program Committee for SODA '23	2022
External Reviewer for ISF, Schmidt Futures	
Program Committee for ITCS '22, FORC '21, EC '21	2021
External Reviewer for STOC '22, FC '22, SAGT '21	
Program Committee for ITCS '21, EC '20, WINE '20, Tackling Climate Change with ML at ICLR 2020	2020
Ambassador for Global Challenges in Economics and Computation	
External Reviewer for GEB, SODA '21, FOCS '20	
Program Committee for AAI '20, EC '19, NetEcon '19, MD4SG '19 (Theory area chair)	2019
External Reviewer for JACM, JAIR, SODA '20, FOCS '19	
Program Committee for AIES '19	2018
External Reviewer for TEAC, STOC '19, ITCS '19, SODA '19, WINE '18, ESA '18	
External Reviewer for STOC '18, SODA '18, WINE '17, ESA '17, ICALP '17	2017
External Reviewer for IPCO '17, STACS '17, SODA '17, WINE '16, EC '16	2016

INTERNAL ACTIVITIES:

Boston University Faculty of Computing and Data Sciences

Member, Doctoral Oversight Committee 2024 – 2026

Established the infrastructure for a new PhD program for assessing student progress, including milestones, annual reviews, academic standing, fellowships, and research rotations.

Coordinator, PhD Visit Day 2025 2024 – 2025

Member, PhD Program Planning Committee Summer 2024

Member, Tenure-Track Hiring Committee 2023 – 2024

Member, Faculty Interview Committee 2022 – 2023

Member, PhD Admissions Committee

Member, PhD Admissions Committee 2021 – 2022

Member, Tenure-Track Hiring Committee

Columbia University Department of Computer Sciences

Member, Bits for Justice addressing Systemic Anti-Black Racism 2020

University of Washington School of Computer Science and Engineering

Member, PhD Admissions Committee 2017 – 2019

Co-Chair, Graduate Women's Organization 2015 – 2016

Co-Chair, Graduate Prospective Student Committee

Founder and Mentor, Mentoring Program for Undergraduate Women

Member, Graduate Prospective Student Committee 2014 – 2015