Charikleia (Chara) Podimata

Class of 1942 Career Development Professor
Assistant Professor of OR/Stat at MIT
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https://www.charapodimata.com

RESEARCH INTERESTS

trustworthy & human-aware ML, decision making under uncertainty, AI policy-making, algorithmic fairness, online learning, topics at the interface of CS, Economics & ML

EMPLOYMENT

Assistant Professor OR/Stat, MIT Sloan — Jun. 2023 - present
Lead Researcher, Archimedes/Athena RC — Jun. 2023 - present
Postdoctoral Fellow, UC Berkeley, CA — Aug. 2022 - Jul. 2023

EDUCATION

Harvard University, Cambridge, MA — Aug. 2016 - Nov. 2022
Ph.D in Computer Science
Dissertation: "Incentive-Aware Machine Learning for Decision Making"
Advisor: Yiling Chen

National Technical University of Athens, Greece — Sept. 2010 - Jan. 2016
Diploma in Electrical Engineering and Computer Science (5-year joint degree)
GPA: 9.47/10
Thesis:"Approximations of Liquid Welfare for Combinatorial Auctions"
Advisor: Dimitris Fotakis

SELECTED HONORS & AWARDS

x-grant from the MacArthur Foundation — 2024
Class of 1942 Career Development Professor — 2024-2027
Amazon Research Award — 2024
FODSI Postdoctoral Fellowship — 2022-2023
Siebel Scholarship — 2021-2022
MSR Dissertation Grant — 2021-2022
Rising Stars in EECS in Berkeley — 2020
Poster Honorary Mention 14**th Annual ML Symposium (NYAS)** — 2020
Finalist for 2020 Facebook PhD Fellowship (top 4%**)** — 2020
Spotlight 2**nd Place Prize,** 13**th Annual ML Symposium (NYAS)** — 2019
Finalist of the 2019 Microsoft Research PhD Fellowship — 2019
Certificate of Distinction in Teaching, Harvard University — 2017, 2018
Among 5 papers shortlisted for Best Paper Award, EC18

TUTORIALS

Incentive-Aware Machine Learning: A Tale of Robustness, Fairness, Improvement, and Performativity
NeurIPS 2022 — Dec. 2022
[https://charapodimata.com/NeurIPS22-tutorial.html]

Do we incentivize honest effort or gaming in incentive-aware learning?
"Optimizing the Efforts of Others" workshop at STOC22 (**invited**) — Jun. 2022
[https://www.charapodimata.com/files/presentations/STOC22-tutorial.pdf]

Algorithms for Incentive-Aware Learning
Full-day course in the University of Zurich summer school (**invited**) Jun. 2021

How to Achieve Both Transparency and Accuracy in Predictive Decision Making: an Introduction to Strategic Prediction, FAccT21 Mar. 2021
Co-taught with Benjamin Edelman and Yonadav Shavit
[https://www.benjaminedelman.com/tutorial.html]

Incentive-Compatible and Incentive-Aware Learning, EC20 Jun. 2020
Co-taught with Nika Haghtalab
[https://www.charapodimata.com/EC20-tutorial.html]

TEACHING

Instructor, MIT Sloan
Courses
Data, Models, and Decisions (MIT 15.060) Fall 2023, 2024
Common Experience (MIT 15.090) Summer 2024

Teaching Fellow, Harvard University Fall 2017, Fall 2018, Fall 2020
Course: Introduction to Optimization (AM121)
Instructor (2017, 2018): Yiling Chen
Instructor (2020): Yiling Chen & Margo Levine

Teaching Assistant, NTUA, Greece Fall 2015
Courses: Introduction to programming (PaZcal), Algorithms and Complexity
Instructor: Dimitris Fotakis

ADVISING

Valia Efthymiou 2024 - present
PhD student at MIT ORC

Nicolas Emmenegger 2024 - present
PhD student at MIT ORC

Ekaterina Fedorova 2023 - present
PhD student at UPenn visiting MIT

Zijie (Jerry) Zhou (co-advised with P. Jaillet) 2023 - present
PhD student at MIT ORC

Apostolis Tsorvantzis (co-advised with D. Fotakis, C. Caramanis) 2023 - present
PhD student at Archimedes AI/Athena RC

Chrysa Oikonomou (co-advised with K. Sotiraki) 2023 - present
PhD student at Archimedes AI/Athena RC

Madeline Celi Kitch 2024 - 2025
Predoctoral RA at MIT

PUBLICATIONS (Alphabetical Author Order)

Journals

Contextual Search in the Presence of Adversarial Corruptions
Akshay Krishnamurthy, Thodoris Lykouris, Chara Podimata, and Robert Schapire
Operations Research 2022 (**OR22**)
[https://arxiv.org/pdf/2002.11650.pdf]

Conferences

When Should you Offer an Upgrade: Online Upgrading Mechanisms for Resource Allocation
Patrick Jaillet, Chara Podimata, Andrew Vakhutinsky, and Zijie Zhou
In Proc. of the 20th Conference on Web and Internet Economics (**WINE24**)
Submitted to Operations Research
Finalist of 2024 INFORMS Service Science Best Student Paper Competition
[https://arxiv.org/abs/2402.08804]

Grace Period is All You Need: Individual Fairness without Revenue Loss in Revenue Management
Patrick Jaillet, Chara Podimata, and Zijie Zhou
In Proc. of the 20th Conference on Web and Internet Economics (**WINE24**)
Submitted to MSOM
[https://arxiv.org/abs/2402.08533]

Is Knowledge Power? On the (Im)possibility of Learning from Strategic Interactions
Nivasini Ananthakrishnan, Nika Haghtalab, Chara Podimata, and Kunhe Yang
In Proc. of the 38th Conf. of Neural Information Processing Systems (**NeurIPS24**)
[https://arxiv.org/pdf/2408.08272]

Preferences Evolve and So Should your Bandits: Bandits with Deterministically Evolving States
Khashayar Khosravi, Renato Paes Leme, Chara Podimata, and Apostolis Tsorvantzis
In Proc. of the 25th conference on Economics and Computation (**EC24**)
Submitted to Operations Research
[https://arxiv.org/pdf/2307.11655.pdf]

Can Probabilistic Feedback Drive User Impacts in Online Platforms?
Jessica Dai, Bailey Flanigan, Meena Jagadeesan, Nika Haghtalab, and Chara Podimata
In Proc. of the 27th International Conference on Artificial Intelligence and Statistics (**AISTATS24**) [https://arxiv.org/pdf/2401.05304]

Strategyproof Decision-Making in Panel Data Settings and Beyond
Keegan Harris, Anish Agarwal, Chara Podimata, and Steven Zhiwei Wu
In ACM SIGMETRICS Performance Evaluation Review 2024 (**SIGMETRICS24**)
In preparation for Operations Research
[http://arxiv.org/abs/2211.14236]

Calibrated Stackelberg Games: Learning Optimal Commitments Against Calibrated Agents
Nika Haghtalab, Chara Podimata, and Kunhe Yang

In Proc. of the 37th Conf. of Neural Information Processing Systems (**NeurIPS23**)
Spotlight
In preparation for Operations Research
[https://arxiv.org/pdf/2306.02704.pdf]

Strategic Apple Tasting
Keegan Harris, Chara Podimata, and Steven Zhiwei Wu
In Proc. of the 37th Conf. of Neural Information Processing Systems (**NeurIPS23**)
[https://arxiv.org/pdf/2306.06250.pdf]

Corruption-Robust Contextual Search through Density Updates
Renato Paes Leme, Chara Podimata, and Jon Schneider
In Proc. of the 35th Annual Conference on Learning Theory (**COLT22**)
Submitted to Operations Research
[https://arxiv.org/pdf/2206.07528.pdf]

Information Discrepancy in Strategic Learning
Yahav Bechavod, Chara Podimata, Zhiwei Steven Wu, and Juba Ziani
In Proc. of the 39th International Conference on Machine Learning (**ICML22**)
[https://arxiv.org/pdf/2103.01028.pdf]

Contextual Search in the Presence of Irrational Agents
Akshay Krishnamurthy, Thodoris Lykouris, Chara Podimata, and Robert Schapire
In the Proc. of the 53rd ACM Symposium on Theory of Computing (**STOC21**)
Operations Research 2022
[https://arxiv.org/pdf/2002.11650.pdf]

Adaptive Discretization for Adversarial Lipschitz Bandits
Chara Podimata and Aleksandrs Slivkins
In the Proc. of the 34th Annual Conference on Learning Theory (**COLT21**)
In preparation for Operations Research
[https://arxiv.org/pdf/2006.12367.pdf]

Learning Strategy-Aware Linear Classifiers
Yiling Chen, Yang Liu, and Chara Podimata
In Proc. of the 34th Conf. on Neural Information Processing Systems (**NeurIPS20**)
[https://arxiv.org/pdf/1911.04004.pdf]

No-Regret and Incentive-Compatible Online Learning
Rupert Freeman, David Pennock, Chara Podimata, and Jennifer Wortman Vaughan
In Proc. of the 37th International Conference on Machine Learning (**ICML20**)
Poster Presentation Honorary Mention 14th Annual ML Symposium (NYAS).
[https://arxiv.org/pdf/2002.08837.pdf]

Strategyproof Linear Regression in High Dimensions: An Overview
Yiling Chen, Chara Podimata, Ariel D. Procaccia, and Nisarg Shah
ACM SIGEcom Exchanges (Research Letter) **Invited**
[https://www.sigecom.org/exchanges/volume_17/1/CHEN.pdf]

A Bridge between Liquid and Social Welfare in Combinatorial Auctions with Submodular Bidders

Dimitris Fotakis, Kyriakos Lotidis, and Chara Podimata
In Proc. of the 33rd AAAI Conference on Artificial Intelligence (**AAAI19**)
[https://arxiv.org/pdf/1809.01803v1.pdf]

Learning to Bid Without Knowing your Value
Zhe Feng, Chara Podimata, and Vasilis Syrgkanis
In Proc. of the 19th ACM Conference on Economics and Computation (**EC18**)
Spotlight award 2nd place prize at the 13th Annual ML Symposium (NYAS).
[https://arxiv.org/abs/1711.01333]

Strategyproof Linear Regression in High Dimensions
Yiling Chen, Chara Podimata, Ariel D. Procaccia, and Nisarg Shah
In Proc. of the 19th ACM Conference on Economics and Computation (**EC18**)
Among the 5 shortlisted papers for the Best Paper Award
Submitted to JMLR
[https://arxiv.org/pdf/1805.10693.pdf]

Preprints

LLMs and Election Information: A Longitudinal Study on the US 2024 Presidential Election
Sarah H. Cen, Hedi Driss, Aspen Hopkins, Andrew Ilyas, Aleksander Madry, Charlotte Park, and Chara Podimata
In preparation for Science

Black-box Counterfactual Auditing with LLMs
Sarah H. Cen, Hedi Driss, Andrew Ilyas, and Chara Podimata
In preparation for Science

Collaborative Filtering and User Activism
Ekaterina Fedorova, Madeline Celi Kitch, and Chara Podimata
In preparation for Management Science

Characterizing Gaming vs Improvement in Causal Strategic Classification for Complete and Incomplete Information Settings
Valia Efthymiou, Chara Podimata, Diptangshu Sen, and Juba Ziani
In preparation for Management Science

Contextual Dynamic Pricing with Heterogeneous Buyers
Thodoris Lykouris, Sloan Nietert, Princewill Okoroafor, Chara Podimata, and Julian Zimmert
In preparation for Operations Research

LLM Inference with Exploding KV Cache Demands
Patrick Jaillet, Jiashuo Jiang, Chara Podimata, and Zijie Zhou
In preparation for Management Science

Recommending to Strategic Users
Andreas Haupt, Chara Podimata, and Dylan Hadfield-Menell
In preparation for Communications of the ACM

[https://arxiv.org/pdf/2302.06559.pdf]

SELECTED INVITED TALKS

Black-box Counterfactual Auditing Using LLMs
2024 INFORMS Annual Meeting, Seattle, WA — Oct. 2024

Calibrated Stackelberg Games: Learning Optimal Commitments Against Calibrated Agents
BU CDS ML Symposium — Nov. 2024
BIRS Workshop on "New Directions in ML" — Oct. 2024
MIT ORC seminar — Mar. 2024
CU Boulder theory seminar — Aug. 2024

The Disparate Effects of Recommending to Strategic Users
Recommendations Ecosystem Workshop (AAAI24) — Feb. 2024
Workshop on Fairness in Operations and AI (Columbia IEOR) — Nov. 2023
2023 INFORMS Annual Meeting, Phoenix, AZ — Oct. 2023
The Future of AI and Economics (Harvard Business School) — Sep. 2023
Stanford RAIN Seminar — May 2023
Morgan Stanley ML research seminar — Aug. 2023

Information Discrepancy in Strategic Learning
TOC4Fairness Online Seminar Series — Oct. 2022

Corruption-Robust Contextual Search
Simons institute workshop on "Quantifying Uncertainty" — Sep. 2022

Adaptive Discretization for Adversarial Lipschitz Bandits
2022 INFORMS Annual Meeting, Indianapolis, IN — Oct. 2022

Transparency and Accuracy in Predictive Decision Making: an Introduction to Strategic Prediction
Quant Seminar at the U.S. Securities and Exchange Commission — Apr. 2022

Incentive-Aware Machine Learning for Decision-Making
University of Michigan, IOE Department — Jan. 2022
MIT Sloan, OR/Stat Group — Jan. 2022
Cornell, ORIE Department — Jan. 2022
USC Marshall, OM Group — Jan. 2022
Stanford GSB, OIT Group — Jan. 2022
CMU Tepper, OR Group — Feb. 2022
TTIC — Feb. 2022
UChicago, Data Science + CS — Feb. 2022
Northeastern, CS Department — Feb. 2022
Cornell, Information Science Department — Feb. 2022
Columbia, IEOR Department — Feb. 2022
Yale, Stats and Data Science — Feb. 2022
UC Berkeley, Statistics Department — Mar. 2022
MIT EECS, AI + D — Mar. 2022
US General Services Administration Data Science Seminar — May 2022
CMU's 5th YinzOR Conference (**plenary talk**) — Aug. 2022

Contextual Search in the Presence of Irrational Agents

2021 INFORMS Annual Meeting, Anaheim, CA	Oct. 2021
Cornell Young ORIE Researchers Workshop	Oct. 2021
BU Algorithms and Theory Seminar	Oct. 2021
NEU Theory Lunch	Nov. 2021
Stanford Information Systems Laboratory Colloquium	Jan. 2022
Amazon Ads	Apr. 2022

Learning Strategy-Aware Linear Classifiers

2020 INFORMS Annual Meeting, Online.	Nov. 2020
Northeastern University Theory Seminar	Nov. 2019

Learning to Bid Without Knowing your Value

2018 INFORMS Annual Meeting, Phoenix, Arizona.	Nov. 2018
Google NYC, Algorithms Seminar.	Jul. 2018
Yahoo! Research NYC, Algorithms Seminar.	Jun. 2018

PROFESSIONAL SERVICE

Senior Area Chair: NeurIPS2024

Area Chair: NeurIPS2023

Senior PC: WWW2025, COLT2024

PC Member: EC2025, FORC2025, FORC2024, EC2024, ICML2024, FAccT2024, WINE2023, COLT 2020-2023, FORC23, EAAMO22-23, NeurIPS2022, ICML2022-2023, FAccT2022, WINE 2021, ICML2021 (Best Reviewers Award), NeurIPS 2020-2021 (Best Reviewers Award), IJCAI 2020, Emerging Track on AI for Social Impact (AAAI-20, AAAI-21)

Journal Refereeing: Annals of Statistics, Journal of American Statistical Association (JASA), Management Science (MS), Operations Research (OR), Review of Economics and Statistics, Artificial Intelligence Journal (AIJ), Transactions of Machine Learning Research (TMLR), Journal of Machine Learning Research (JMLR), IEEE Transactions on Control of Network Systems (TCNS), Theoretical Computer Science (TCS), Theory of Computing Systems (ToCS)

INTERNSHIPS

Research Intern, Google Research NYC	May - Aug., 2021
Research Intern, Microsoft Research NYC	Feb. - May, 2020
Research Intern, Microsoft Research NYC	May - Aug., 2019
Business Intern, Google Athens, Greece	Feb. - Aug. 2016

COMMUNITY SERVICE

LeT-All podcast creator, producer & host	2024-
EC Mentoring Workshop, *Presenter for "How-To" talk*	EC23
LeT-All, *Volunteer Panelist*	Oct. 2022
EC Mentoring Workshop, *Volunteer Panelist*	EC 2022
LeT-All, *Volunteer Teaching Assistant*	ALT 2022

TA at Nicole Immorlica's session on Peer Review

Google Serve, Athens, Greece, *Volunteer* June 2016

Project: Building a playground for refugee kids in the refugee camp (Elaionas, Greece)

Organizing 1st Girls Day event at Google, Greece Mar. 2016

As part of my participation at Women@Google

Instructor at Code it Like a Girl, Athens, Greece May 2015 - Sep. 2016
Code it Like a Girl is a volunteering start-up teaching coding to women of all ages.
Free tutoring for children of impoverished families, Athens, Greece 2012-2014