Marios Papachristou

Assistant Professor of Information Systems
W.P. Carey School of Business
Arizona State University

PERSONAL INFORMATION		
	E-mail	mpapachr@asu.edu
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	Office	400 E Lemon St, BAC 685, Tempe, AZ 85281
	Nationality	Greek, US Permanent Resident (Green Card Holder)

RESEARCH

Network Economics, Platforms, AI agents, Privacy, Computational Social Science

EMPLOYMENT

W.P. Carey School of Business, Arizona State University — 2025 –
Tenure-Track Assistant Professor, Department of Information Systems
- Affiliated Member, Center for AI and Data Analytics (AIDA)

Microsoft Research — *Summer 2023*
Office of Applied Research, *with Chin-Chia Hsu and Longqi Yang*

Twitter — *Summer 2022*
User Modeling Research Group, *with Rishab Goel, Frank Portman, Matt Miller*

EDUCATION

Cornell University — *2020 – 2025*
Ph.D. in Computer Science, Minor: *Applied Mathematics*
- *Doctoral Advisor:* Jon Kleinberg
- *Thesis Title:* From Contagion to Stability: Insights into Network Dynamics, Resilience and Stability

M.S. in Computer Science — *2020 – 2022*

National Technical University of Athens — *2015 – 2020*
Diploma in Electrical and Computer Engineering
- *Advisor:* Dimitris Fotakis

HONORS & AWARDS

- **ACM Doctoral Dissertation Award Nominee** — 2025
  Nominated to the ACM by Cornell's CS department as the best Ph.D. thesis in CS awarded in 2025.
- **ACM/AAAI SIGAI Doctoral Dissertation Award Nominee** — 2025
  Nominated to the ACM by Cornell's CS department as the best Ph.D. thesis in AI awarded in 2025.
- **Sigma Xi Elected Membership** — 2025
  Elected member based on scientific contributions.
- **Cornell ORIE Young Researchers Workshop** — 2024
- **Alexander A. Onassis Scholarship** — 2023
  Three-year fellowship for Greek Ph.D. students. Acceptance rate: 16%.
- **Bodossaki Foundation Fellowship** — 2023
  Runner-up.
- **LinkedIn Ph.D. Fellowship** — 2022
  One-year fully funded fellowship by LinkedIn. Acceptance rate 14%.
- **A.G. Leventis Scholarship** — 2022
  Award for graduate students of Greek origin. Acceptance rate 12.5%.

- **Gerondelis Scholarship**   *2022*
  One-time award for graduate students of Greek descent.
- **Chateaubriand Fellowship**   *2022*
  Fellowship granted by the French Embassy in the US for studies in France (declined for personal reasons). Acceptance rate 33%.
- **Cornell Fellowship**   *2020*
  One-year fully funded fellowship by the CS department based on "exceptional preparation and promise".
- **Thomaidion Award**   *2019*
  Awarded by NTUA for publication during undergraduate studies.
- **ESEC/FSE 2019 ACM Student Research Competition Finalist** *2019*
- **CanSat International Space Engineering Competition**   *2019*
  4th out of 93 teams. Organized by the American Astronautical Society (AAS).
- **2nd prize "be finnovative 2.0" Start-up Accelerator by National Bank of Greece**
  2018
  Cashierless payments start-up.
- **1st prize at "Crowdhackathon Fintech #2" by the National Bank of Greece**
  2017
  Cashierless payments start-up.
- **IEEEXtreme 11.0 Programming Competition**   *2017*
  Top 1% worldwide in IEEE's algorithms competition.
- **Touramanoglu Scholarship**   *2015*
  Highest University Entrance Exams score in the Imittos region.
- **"The Great Moment of Education" Scholarship by Eurobank SA** *2015*
  Highest University Entrance Exams score in the Imittos region.

Papers
Google Scholar Profile
$^{\alpha\beta}$ = alphabetical order
$*$ = equal contribution

Journal Papers

[J1] **Network Formation and Dynamics among Multi-LLMs**
Marios Papachristou, Yuan Yuan
PNAS Nexus (forthcoming), 2025
Preliminary version presented at the International Conference on Computational Social Science (IC2S2) and the NSF Conference in Network Science and Economics
Taught in courses at UIUC, Stanford, and UC Berkeley
[paper] [preprint] [code]

[J2] **Leveraging Large Language Models for Collective Decision-Making**
Marios Papachristou, Longqi Yang, Chin-Chia Hsu
PACM HCI Journal (presented at ACM CSCW '25), 2025
Invited talk at the LLMs as Research Tools Workshop at ACM CHI 2024
Selected as a featured article by the Association of Computing Machinery
[paper] [news]

[J3] **`volesti`: A C++ library for sampling and volume computation on convex bodies**
$^{\alpha\beta}$Apostolos Chalkis*, Vissarion Fisikopoulos*, *Marios Papachristou*, Elias Tsigaridas*
Journal of Open Source Software, 2025
[paper] [code]

[J4] **Differentially Private Distributed Estimation and Learning**
Marios Papachristou, Amin Rahimian
IISE Transactions, 2025
Featured at the July 2025 issue of the ISE Magazine (10% of published articles

at IISE Transactions during 2025) and the University of Pittsburgh Swanson School of Engineering
[paper] [code] [talk] [news] [news]

[J5] **Truncated Log-concave Sampling for Convex Bodies with Reflective Hamiltonian Monte Carlo**
$^{\alpha\beta}$Apostolos Chalkis, Vissarion Fisikopoulos, *Marios Papachristou*, Elias Tsigaridas
ACM Transactions on Mathematical Software (TOMS), 2023
[paper] [code]

Top-tier CS Conference Proceedings

[C1] **Dynamic Interventions for Networked Contagions**
Marios Papachristou, Sid Banerjee, Jon Kleinberg
WWW '23: ACM Web Conference (WWW), 2023
Acceptance rate: 17%
[paper] [code]

[C2] **Core-periphery Models for Hypergraphs**
Marios Papachristou, Jon Kleinberg
KDD '22: ACM Intl. Conf. on Knowledge Discovery and Data Mining (KDD), 2022
Acceptance rate: 15%
[paper] [code] [data]

[C3] **Allocating Stimulus Checks in Times of Crisis**
Marios Papachristou, Jon Kleinberg
WWW '22: ACM Web Conference (WWW), 2022
Acceptance rate: 17%
Featured by the Federal Reserve Bank of Minneapolis
Taught at UC Berkeley
[paper] [code] [talk] [slides] [news]

[C4] **Software Clusterings with Vector Semantics and the Call Graph**
Marios Papachristou
ESEC/FSE '19: ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), 2019
Acceptance rate: 21%
ESEC/FSE Student Research Competition Finalist Paper
[paper] [code] [data]

Revisions & Working Papers

[WP1] **Enabling Large-scale Experimentation accross Recommender System Platforms with Large Language Models**
Marios Papachristou, Nikhil Garg, Panos Adamopoulos
Work in progress, 2025
[preprint] [code]

[WP2] **Learning in Two-Sided Markets: LLM-Agent Simulations of Startup-Client Engagement**
Julian Lehmann*, *Marios Papachristou**
Work in progress, 2025
[preprint] [code]

[WP3] **The Paradox of Noise: Corrupted Pretraining Enables Denoised Large Language Models to Generalize Better**
Giannis Daras*, Alkis Kalavasis*, *Marios Papachristou**, Costis Daskalakis

Work in progress, 2025

[WP4] **Assessing the Human-Likeness of Large Language Models through the General Social Survey**
Rachith Aiyappa, Junsol Kim, *Marios Papachristou*, Yong-Yeol Ahn, Byungkyu Lee
Work in progress, 2025

[WP5] **The Power of Choice in Random Sampling**
Marios Papachristou, Jon Kleinberg
Under review, Operations Research, 2025

[WP6] **Echoes of Disagreement: Measuring Disparity in Social Consensus**
Marios Papachristou, Jon Kleinberg
Under review, INFORMS Journal of Computing, 2024
[preprint] [code]

[WP7] **The Price of Misreporting: Measuring the Effect of Adversarial Behavior in Online Platforms**
Marios Papachristou, Akhil Jalan
Conference version under review at ACM Web Conference (WWW),
Journal version under prepartion for submission to Information Systems Research, 2025
[preprint] [code]

[WP8] **Optimal Resource Allocation for Remediating Networked Contagions**
Marios Papachristou, Sid Banerjee, Jon Kleinberg
Under preparation for submission to Operations Research, 2024
[preprint] [slides]

[WP9] **Group Decision-Making among Privacy-aware Agents**
Marios Papachristou, Amin Rahimian
Under prepartion for submission to INFORMS Journal of Computing, 2024
Preliminary version presented at the Theory and Practice of Differential Privacy Workshop (TPDP)
[preprint] [talk]

[WP10] **Structural Measures of Resilience for Supply Chains**
Marios Papachristou, Amin Rahimian
Reject and resubmit, Management Science, 2024
[preprint] [code] [slides]

Refereed CS Workshops

[W1] **GLINKX: A Scalable Unified Framework for Homophilous and Heterophilous Graphs**
Marios Papachristou, Rishab Goel, Frank Portman, Matt Miller, Rong Jin
NeurIPS workshop on Graph Learning Frontiers (GLFrontiers), 2022
[paper] [poster]

Sᴏғᴛᴡᴀʀᴇ   **volesti**   github.com/GeomScale/volesti
Open-source C++ statistical software for sampling and volume approximation from convex bodies.

Oᴛʜᴇʀ   **GeomScale Open-source Organization**   *May 2020 − March 2020*
Exᴘᴇʀɪᴇɴᴄᴇ   Sampling from truncated log-concave densities, and convex optimization, working on

the `volesti` open-source package *with Dr. Apostolos Chalkis, Dr. Vissarion Fisikopoulos, and Dr. Elias Tsigaridas*

Cashierless Payments Start-up *2017 – 2018*
Part of National Bank of Greece's start-up accelerator

Athens University of Economics and Business *2018 – 2020*
Department of Management Science and Technology, *with Prof. Diomidis Spinellis*

Google Summer of Code 2020 (GeomScale) *June 2020 – August 2020*
Sampling from high-dimensional truncated log-concave densities, *with Dr. Apostolos Chalkis, Dr. Vissarion Fisikopoulos, and Dr. Elias Tsigaridas*
[code] [talk]

Google Summer of Code 2018 (GFOSS-OTA) *April 2018–September 2018*
Automated codification of Greek Legislation, *with Prof. Diomidis Spinellis*
[code] [data] [talk]

Researcher – P2P Lab *2013 – 2014*

TEACHING &
MENTORSHIP
EXPERIENCE

– The Structure of Information Networks (PhD-level, Cornell) *Spring & Fall 2023*
– Discrete Mathematics (NTUA) *Spring 2017*
– Programming Techniques (NTUA) *Spring 2016*
– Introduction to Computer Programming (NTUA) *Fall 2016, Fall 2017*

– Student-applicant Support Program at Cornell CIS *2022*
– Google Summer of Code Mentor *2019–2022*
– Volunteer lessons for the National Olympiad of Informatics (PDP) *2019*

– Student Mentees: Jasmine Li (Undergraduate Cornell CS), Ioannis Iakovidis (Google Summer of Code 2022; now Ph.D. student at Johns Hopkins), Zhang Zhuyan (Google Summer of Code 2022; now Technology analyst at Bank of America), Souraj Choubey (Google Summer of Code 2021

TALKS &
LECTURES
†= scheduled
⋆= presented by co-author

• *Resilience in Networks: Frameworks for Resource Allocation and Simulation*
  – Archimedes, Athena RC *April 2025*
  – TOC4Fairness Seminar, Simons Institute *March 2025*
  – Cornell University, Theory Seminar *December 2024*
  – Arizona State University, W.P. Carey School of Business *November 2024*
  – Purdue University, Daniels School of Business *November 2024*
  – MIT, Research Group Meeting *June 2024*
• *Network Formation and Dynamics among Multi-LLMs*
  – Arizona State University, School of Mathematical and Natural Sciences, AI Seminar *November 2025*
  – INFORMS Annual Meeting *October 2025*
  – Symposium on Statistical Challenges on Electronic Commerce Research (SCECR) *June 2025*
  – Arizona State University, Machine Learning Day *April 2025*
  – NSF Conference on Network Science and Economics *April 2025*
  – INFORMS Annual Meeting *October 2024*
  – IBM Research, Exploratory Math Sciences Council Seminar *April 2024*
  – UIUC, Guest Lecture at the Network Analysis Course *April 2024*
  – Cornell University, AIPP Group *March 2024*
  – Learning on Graphs (LoG) NYC Meetup *February 2024*

- *Information Aggregation and Distributed Learning in Privacy-critical Environments*
  - CMU, Tepper School of Business OM Seminar⋆   *September 2024*
  - TOC4Fairness Online Seminar Series⋆   *March 2024*
  - Information: Theory and Applications (ITA) Workshop⋆   *February 2024*
  - Rutgers University Business School, Seminar⋆   *November 2023*
- *Leveraging Large Language Models for Collective Decision-Making*
  - LLMs as Research Tools: Applications and Evaluations in HCI Data Work Workshop, ACM Conference on Human-Computer Interaction⋆ *May 2024*
  - Microsoft Research, Invited Applied Research Talks   *August 2023*
- *Structural Measures of Resilience for Supply Chains*
  - NSF Conference on Network Science and Economics   *April 2024*
  - Columbia University, Student Theory Seminar   *November 2023*
  - Cornell University, Theory Tea   *November 2023*
  - INFORMS Annual Meeting⋆   *October 2023*
  - Cornell University, LinkedIn Campus Visit   *May 2023*
- *Resource Allocation in a Financial Contagion Environment*
  - University of Chicago, Theory Seminar   *October 2023*
  - Indiana University, Center for Complex Networks and Systems Research *September 2023*
  - Cornell University, CS 6850 Guest Lecture   *April 2023*
  - Cornell University, Theory Seminar   *November 2022*
- *Dynamic Interventions for Networked Contagions*
  - INFORMS Annual Meeting   *October 2023*
  - ACM Web Conference   *April 2023*
  - ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization   *October 2022*
- *Core-periphery Models for Hypergraphs*
  - ACM Conference on Knowledge Discovery and Data Mining   *August 2022*
- *GLINKX: A Scalable Unified Framework for Homophilous and Heterophilous Graphs*
  - NeurIPS Workshop on Graph Learning Frontiers   *December 2022*
  - Twitter, Machine Learning Seminar   *August 2022*
- *Allocating Stimulus Checks in Times of Crisis*
  - ACM Web Conference   *April 2022*
  - ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization   *October 2021*
- *Sampling from Truncated High Dimensional Logconcave Densities*
  - PyData Global   *December 2020*
- *Software Clusterings with Vector Semantics and the Call Graph*
  - ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering   *August 2019*

DEPARTMENTAL & PROFESSIONAL SERVICE

Seminar Organizer

- Department of Information Systems Brown Bag Seminar Organizer

Program Commitee

- ACM Conference on Fairness Accountability and Transparency (FAccT)
- ACM Conference on Knowledge Discovery and Data Mining (KDD)

Reviewer

- Management Science
- Mathematics of Operation Research
- Journal of Artificial Intelligence Research
- Naval Research Logistics
- International Conference on Computational Social Science (IC2S2)
- ACM Web Conference (WWW)
- Innovations in Theoretical Computer Science (ITCS)
- ACM Conference on Human Factors in Computing (CHI)
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD)
- Machine Learning
- NeurIPS 2022 Workshop on Graph Learning Frontiers (GLFrontiers)
- NeurIPS 2021 Workshop on Human and Machine Decisions
- Journal of Open Source Software

Session Chair

– INFORMS Annual Meeting	*2025*
– NSF Confernce on Network Science and Economics	*2024*
– ACM Web Conference (WWW)	*2022*

REFERENCES

Jon Kleinberg (`kleinberg@cornell.edu`)
Dept. of Computer and Information Science, Cornell University

Siddhartha Banerjee (`sbanerjee@cornell.edu`)
School of Operations Research and Information Engineering, Cornell University

Amin Rahimian (`rahimian@pitt.edu`)
Deptartment of Industrial Engineering, University of Pittsburgh

Yuan Yuan (`yuyuan@ucdavis.edu`)
OpenAI and Graduate School of Management, UC Davis

Longqi Yang (`longqi.yang@microsoft.com`)
Office of Applied Research, Microsoft Research

Chin-Chia Hsu (`chinchia.k.hsu@gmail.com`)
Google DeepMind

Yong-Yeol Ahn (`yyahn@virginia.edu`)
School of Data Science, University of Virginia

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