Athina Markopoulou

Professor, Nhũ' Dept. of Electrical Engineering & Computer Science
Director, CALIT2, UCI Division
Director, E+ Society Institute on AI, Samueli School of Engineering
University of California, Irvine

Curriculum Vitae

Research Interests

- Privacy-enhancing technologies, AI safety and tech policy, in applications including social networks, web, mobile, virtual and augmented reality, voice assistants and AI agents.

Education

- **Stanford University** *Stanford, CA*
  Ph.D. in Electrical Engineering *Jan. 2003*
  Thesis: "Assessing the Quality of Multimedia Communications over Internet Backbones".
  Advisor: Fouad Tobagi.

- **Stanford University** *Stanford, CA*
  M.S. in Electrical Engineering *March 1998*

- **National Technical University of Athens** *Athens, Greece*
  Diploma in Electrical and Computer Engineering *June 1996*
  Entered and graduated in the top 1% (in a class of ∼250).

Professional Experience

- Academic Leadership

  Director of CalIT2, UCI Division *July 2025 – today*
  calit2.uci.edu

  Director of Engineering+Society Institute on AI, SSoE *July 2025 – today*
  properai.eng.uci.edu

  Director of ProperData (an NSF SaTC Frontiers Center) *Oct. 2020 – 2026*
  properdata.eng.uci.edu

  Associate Dean for Graduate and Professional Studies, SSoE *2022 – 2025*

  Chair of EECS Department & Alexopoulos Presidential Chair *2019 – 2022*

- Employment

  EECS Dept, Samueli School of Engineering, UC Irvine *Irvine, CA*
  Full Professor, EECS Dept *July 2019 – today*

Associate Professor, EECS Dept *July 2012 - June 2019*
Assistant Professor, EECS Dept *Jan. 2006 - June 2012*

Additional Affiliations at UC Irvine *Irvine, CA*
Joint Appointment in the CS Dept, Information & Computer Science (ICS) *throughout*
CalIT2, UC Irvine Division) *2008-2018, 2025+*
Networked Systems Program *throughout*

Shoelace Wireless, Inc. *Irvine, CA*
Co-Founder and Interim President *Nov. 2012 - Mar. 2016*

IT University of Copenhagen *Copenhagen, Denmark*
Visiting Associate Professor (on Sabbatical Leave) *Sept. 2012-June 2013*

Arista Networks *Palo Alto, CA*
Research Scientist, Member of the Technical Staff *July 2005 - Dec. 2005*

Stanford University, Electrical Engineering Dept. *Stanford, CA*
Postdoctoral Researcher. Advisors: N. Bambos, B. Prabhakar *Aug. 2003 - June 2005*

Sprint Advanced Technologies Lab, IP Group *Burlingame, CA*
Postdoctoral Member of Technical Staff *Jan. - July 2003*

- Internships

Cisco Systems *San Jose, CA, July - Sept. 2000*
Nokia Research Center *Mountain View, CA June-Sept 1999*
Aloha Networks Inc. *San Francisco, CA, June - Sept. 1998*
Institut National des Télécommunications Francaises (INT), *Evry, FR,* June-Aug. 1994

Honors and Distinctions

- Member of the NASEM Forum on Cyber Resilience, 2026-29.
- ACM Distinguished Speaker, 2026.
- **ACM Fellow**, 2025.
- HSSoE Senior Faculty "Excellence in Research" Award, UCI, 2023.
- N^2Women's Award: Stars in Computer Networking and Communications, 2022.
- **IEEE Fellow**, 2021.
- Chancellor's Fellow, UCI, 2019-2022.
- Nicolaos G. & Sue Curtis Alexopoulos Presidential Chair, EECS Dept, UCI, 2019-2022.
- Orange County Engineering Council – Educator Award, Feb. 2017.
- HSSoE Faculty Midcareer Award for Research, UCI, June 2014.
- NSF CAREER Award 2008.
- **Paper Awards:** ACM IMC 2024 Best Student Paper Award; Caspar-Bowden PET Runner-Up Award 2024; ACM IMC 2023 Best Paper Award; Andreas Pfitzmann Best Student Paper in PETS 2018; Best Demo Award Winner, Mobicom 2015 S3 Workshop.
- Finalist: Best Paper Nominee Award (top 5%), Ubicomp 2014; 2nd place in MobiCom App Competition, 2013; Best Paper Finalist in ACM MobiSys 2012; Best Student Paper Runner-up in IEEE ISIT 2010; Best Paper Finalist in IEEE INFOCOM 2002.

- Graduate studies: L. Voudouri Foundation fellowship, 2001-2002; I. Latsis Foundation fellowship, 1997-2000; Fulbright Scholarship awardee, 1996-1997; Departmental Assistantship, Dept. of Electrical Engineering, Stanford, 1996-1997.
- Undergraduate studies: 3^{rd} medal of excellence, National Technical University of Athens (in a class of ∼250), 1998; State Scholarship Foundation (IKY), 1992-1994; Technical Chamber of Greece (TEE), 1993; I.Latsis Foundation fellowship, 1992-1996.
- Hellenic Olympiads in Mathematics (nation-wide): 1^{st} prize, 1987; 3^{rd} prize, 1988; distinction, 1991.

Professional Service & Recognition

- Professional Organizations/Societies:
  - National Academies: Member of the **NASEM Forum on Cyber Resilience**, 2026-2029.
  - Societies: **ACM Fellow (2025), IEEE Fellow (2021)**. AAAS Member.
  - Elected Vice Chair of ACM SIGCOMM, 2025+. Also ex-officio EC liaison to the steering committee of ACM IMC.
  - Elected Member of the ACM SIGMETRICS Board of Directors 2023-25. Also SIGMETRICS Awards Coordinator 2023-25.
  - Committees: SIGCOMM Test of Time Award Committee, 2021; ECEDHA (ECE Department Heads Association) Awards Committee, 2022; ACM Heidelberg Laureate Forum Young Researcher Selection Committee, 2023-25.
- Editorial Work for Journals:
  - Editor-in-Chief for ACM POMACS 2020 (ex-officio as TPC Co-Chair of ACM SIGMETRICS 2020).
  - Associate Editor for ACM Computer Communication Review (CCR), Dec. 2016 - Sept. 2017.
  - Associate Editor for IEEE/ACM Trans. on Networking March 2013- March 2015.
  - Associate Editor, Elsevier Computer Networks, 2009-2011.
- Organizing Conferences:
  - **Founding Co-Chair:** Launched the Policy-Relevant Privacy Research (PR2) Workshop, colocated with the Privacy Enhancing Technologies Symposium (PETS): `https://pr2.technologypolicyworkshop.org/`. Served as Inaugural Co-Chair in 2025, and as Steering Committee Member in 2026.
  - **Steering Committee:** ACM SIGCOMM Executive Committee Liaison (and Ex-Officio Member) to ACM IMC Steering Committee 2025+.
  - **General Co-Chair:** ACM CoNext 2016, ACM Hotnets 2024.
  - **TPC Co-Chair** for: ACM SIGMETRICS 2020; Fog World Congress - Research Track 2017; NetCod 2012.
  - ACM SIGCOMM 2021 Posters: Co-Chair and SRC Judge.
  - Co-Chair of a ProperData Virtual Workshop on "Privacy Aspects of Contact Tracing", Oct. 2nd 2020.

- SIGMETRICS Conference Development Subcommittee Member, 2019-20.
- Local Arrangements Chair: SIGMETRICS 2018, IEEE WoWMoM 2008.
- Travel Grants Chair:IEEE INFOCOM 2010 and ACM SIGCOMM 2009.

▶ Technical Program Committees:

- 2027: PETS/PoPETS 2027, Usenix Security (SEC) 2027.
- 2026: PETS/PoPETS 2026, ACM IMC 2026, Usenix Security (SEC) 2026.
- 2025: PETS/PoPETS **TPC Vice Chair**; Usenix Security 2025; ACM IMC 2025; INFOCOM 2025 Advisory Board.
- 2024: IEEE INFOCOM 2024 - **TPC Area Chair**; ACM SIGCOMM 2024.
- 2023: USENIX Security 2023; IEEE INFOCOM 2023 - **TPC Area Chair**; ACM IMC 2023; Data Economics (DE) 2023 – colocated with SIGMOD; Consumer Protection (ConPro) 2023 – colocated with S&P.
- 2022: ACM Sigmetrics 2022; PETS 2022; IMC 2022; IEEE INFOCOM 2022
- 2021: ACM Sigmetrics 2021; PETS 2021; IEEE INFOCOM 2021; ACM SIGCOMM Posters 2021 (Co-Chair).
- 2020: ACM SIGMETRICS 2020 (also **TPC Co-Chair**); IEEE INFOCOM 2020
- 2019: IEEE INFOCOM 2019, SIGMETRICS 2019.
- 2018: ACM MobiHoc 2018.
- 2017: ACM CoNEXT 2017, ACM MobiHoc 2017, ITC 29, Edge Computing 2017.
- 2016: ACM MobiHoc 2016.
- 2015: IEEE INFOCOM 2015, DSN 2015; SIGMETRICS 2015; MobiHoc 2015; NetCod 2015; FOG Workshop.
- 2014: IEEE INFOCOM 2014.
- 2013: IEEE INFOCOM 2013, DSN 2013, NetCod 2013, ACM MobiHoc 2013, ACM CoNext 2013, IFIP Performance 2013, Packet Video 2013.
- 2012: NetCod 2012 (also **TPC Co-Chair**), IEEE INFOCOM 2012, IEEE NetSciCom 2012, ACM CoNext 2012, IEEE ISIT 2012.
- 2011: IEEE INFOCOM 2011, WiNMee 2011, MMSP 2011
- 2010: IEEE INFOCOM 2010, Usenix WOSN 2010, Packet Video PV 2010.
- 2008: ACM/USENIX IMC 2008, IEEE Global Internet 2008, IFIP Networking 2008.
- 2007: IEEE INFOCOM 2007, USENIX SRUTI. 2007, IFIP Networking 2007.
- 2006: IEEE Globecom 2006 (General Conference TPC, Committee for Best Paper Selection), IFIP Networking 2006, ACM SIGCOMM Posters 2006.
- 2005- : IFIP Networking 2004 - Grid Computing Workshop.

▶ Session Chair for Conferences:

PETS 2025 (privacy in federated learning); ISIT 2024 (session on privacy in coded computing); INFOCOM 2021 (privacy session); PETS 2021 (mobile privacy); WWW 2019 (Session on Event Forecasting and Ridesharing); ITA 2017; IEEE INFOCOM 2013, 2012, 2011, 2010; Asilomar 2011 (organized a session on network coding); NetCod 2010; IEEE WoWMoM08; Packet Video 2004, "Towards a Science of Networks Workshop" 2006.

- Reviewer for Journals:
  IEEE TMC (2021), ACM CCR (2018), IEEE Transactions on Network Science (2017), IEEE/ACM Transactions on Networking (2006-today), IEEE Trans. on Inf. Theory (2009-10), IEEE Journal of Selected Topics on Communications (2006-today), IEEE TPDS (2011), IEEE TMC (2011) WCM, ACM CCR (2017, 2008), IEEE Trans. on Multimedia (2007-09), ACM TOMCCAP (2007), IEEE Transactions on Audio, Speech and Language Processing (March 2006), IEEE Magazine (2010), IEEE Communications Letters (2006), Springer Telecommunications Systems Journal (March 2006), Elsevier Computer Networks (2009-10), Elsevier Computer Communications (2010), IEEE Network Magazine, Wireless Networks.

- External Reviewer for Conferences:
  NetCod 2010; WiNC 2010; IEEE ICIP 2008, IEEE ICC (2007, 2008, 2009), IEEE GLOBECOM 2006 (Spring 2006), IEEE INFOCOM, ACM SIGCOMM, ACM HotNets , IEEE IWQoS, IEEE WCNC, ACM/USENIX IMC, IEEE Hot Interconnects, ACM Multimedia, IFIP Networking, Packet Video Workshop, IEEE ICME.

- Service to Funding Agencies:

  - Participated to the UC Noyce Initiative Cybersecurity and AI Workshop, UC Davis, April 2025.
  - **NSF CISE Committee of Visitors (COV)** 2023: Co-Chair of the Subcommittee for the CNS Division, Sept. 2023.
  - Co-organized breakout session on "Privacy, Policy and People", NSF SATC PI Meeting, June 2022, Arlington, VA.
  - Co-organized breakout session on "Online Tracking and Advertising", NSF SATC PI Meeting, Oct. 2019, Alexandria, VA.
  - NSF panels: CISE: 1 panel in 2026; 1 panel in 2021; 3 panels in 2019, CISE 2017, 2014-2016, 2012, 2007-2010; CSR 2016; CyberTrust in 2008.
  - AFOSR reviewer: in 2010, 2011, 2012.
  - Participated in NSF Edge Workshop, Oct. 2016, Washington, DC.
  - Participated in NSF workshop on Wireless Infrastructure: Nov. 2014.

- **Review/Advisory Boards:**

  - Advisory Board Member for the ECE Dept at UCSC, 2026+.
  - External Evaluator for undergraduate and graduate programs at Cal State Long Beach (CSULB), Sept. 2022.
  - External Evaluation Committee for Institute of Informatics and Telecommunications (IIT) for Demokritos National Center for Scientific Research, in Athens, Greece, June 2022. Evaluation Committee Member of IIT Director, Jan. 2023. Advisory Committee Member 2022-26.
  - External Review Committee for ECE Dept at UCSC, April 2021.
  - Special Review Committee for Athena Research Center, IMSI, Greece, June 2021

- **Policy Outreach:**

  - Part of Computing Research Association (CRA) delegation, advocating for NSF budget to Congress. **CRA Congressional Visit Day**, Washington, DC, Sept. 2025.

- The ProperData Team provided public comments to FTC on Trade Regulation Rules on Commercial Surveillance and Data Security, Nov. 2022 https://www.regulations.gov/comment/FTC-2022-0053-1166.
- Invited to the workshop on "Privacy, Security and Future Internet Protocols", hosted by The Alan Turing Institute in partnership with the UK Gov., and convened by the Centre for Emerging Technology and Security (CETaS), May 2022.
- Organized Virtual Workshop on Privacy Aspects of Contact Tracing, https://properdata.eng.uci.edu/events/privacy-contact-tracing/, Oct. 2020.

▶ **Selected Service to UC Irvine:**

- **Academic Leadership:** Director of the California Institute for Telecommunications and Information Technology (CalIT2), UCI Division, (2025+); Associate Dean for Graduate and Professional Studies in SSoE (2022-2025); EECS Department Chair (2019-22); Inaugural Director on Samueli "Engineering+Society Institute on AI" (2025-2030); ProperData Director and Lead PI (2020 - 2026); Networked Systems Program Director and Co-Director (2011-17).
- **Campus Committees:** Search for Vice Provost and Graduate Dean (2025); Google Fellowships Review Committee (2024); Search for Executive Director of Applied Innovation (2021); Provost's Budget Working Group (2021-22); Graduate Funding Support Working Group (2022-24); Review of Seed Grants for the VCR Office; Google Fellowships Review Committee (2024).
- **School Committees:** UC Engineering Leadership Meeting at UCSC (April 2024); Search for SSoE Dean (2020); Search for several high-level staff positions in the school (2020-today); Taskforce for Studying Research Centers and Institutes in SSoE (2020-21); Strategic Planning (2022-23); Executive Committee and School Representative to the Senate; AD Support and Selection Committee for SSoE-LANL fellowships (2023-2025).
- **Department Committees** (2019-): routinely served in hiring committees, several merit and promotion committees cases, strategic planning/"projecting the future" committees, graduate admissions, prelim exams, TA allocation, proposals for hiring on behalf of EECS, including most recently on AI.
- **Local Industry Involvement** (through CALIT2, 2026+): On the leadership board of the Orange County Semiconductor Leadership Group (OC SLG: ocslg.org/). Also oversaw the MADO workforce development program (https://www.calit2.uci.edu/mado/) that places UCI students for training with local companies.

▶ **Selected Profiles in the News**

- Profile Featured in "People of the ACM", forthcoming 2026.
- The Science Coalition, Research Innovators, "Engineering Trust in the Digital Age", Dec. 2025.
- IEEE ComSoc TV, "Celebrating Women in Communications Engineering (WICE)," Interview https://www.youtube.com/watch?v=IlxZEsu4Doo, 2023.
- The Society of Women Engineers (SWE) Magazine, "Tech Stewards Expand the Scope of Responsible Engineering," https://magazine.swe.org/tech-stewards, Oct. 2023.
- UCI Engineering, Dean's Report 2021-22: "Privacy Warrior", https://engineering.uci.edu/2021-22-deans-report-difference-makers, pp.21-23.

– Women in Technology at UCI, Highlighting Women and Allies in Tech Across UCI, `https://womenintech.uci.edu/applause/2022-applause-recipients/`, Applause Program 2022.

FUNDING

(*F*=extramural research funding, *I*= intramural research (competitive process), *M*= misc/other.)

I5: 2026: DTEI IMPACT Award, S. Elmalaki and A. Markopoulou, $35K total, to develop "AI-Enhanced Assessment" for UCI courses.

I4: 2026: UCI-UCLA Collaboration Seed Fund, L. Izhikevich, A. Markopoulou, $90K total ($40K in UCI's share),"Towards 100x Visibility into LEO Satellite Networks."

F24: 2026-2027: UC Noyce Initiative Award, A. Markopoulou, Z. Shafiq, C. Crittenden, $400K total ($160K in UCI's share), "Children's Privacy in AI Chatbots: A Joint Technical and Policy Approach."

I3: 2025-2030: **Inaugural Director of "Engineering+Society on AI"**, funded through a competitive process by a Samueli gift to SSoE, $2.5M. `https://properai.eng.uci.edu`

I2: 2024: UCI-UCLA Collaboration Seed Fund, $10K, A. Markopoulou, Y. Duan, Z. Li, S. Diggavi, to organize joint UCI-UCLA workshops on privacy, e.g., `https://properdata.eng.uci.edu/2024/03/04/uci-ucla-privacy-workshop/`.

F21REU: 7/12024-: NSF REU Supplement (#2431485) to Main Award 1956393, $305K, A. Markopoulou, to support research o three undergraduate students.

F21S: 10/1/23-9/30/25: NSF SaTC Educational Supplement (#2335706) to Main Award 1956393, $345K, A. Markopoulou, S. Jordan, to train law professionals and K-12 students on tracking and privacy-enhancing technologies.

F23: 10/1/22-3/31/23: UC Noyce Initiative Award, $160K total ($80K in UCI's share), Z. Shafiq, A. Markopoulou, G.Tsudik, "Auditing Compliance of Data Privacy Laws in California".

F22: 10/25/20: Google explore CSR, unrestricted gift for Y1 $18K, to organize a Research Exploration Workshop on Privacy and IoT, A. Markopoulou and S. Artis at the Office of Access and Inclusion.

F21: 10/1/20-9/30/25: **Lead PI and Director of ProperData**, NSF Award 1956393, $10M total (approx. $5.6M in UCI's share), "SaTC: Frontiers: Collaborative: ProperData: Protecting Personal Data Flow on the Internet". `https://properdata.eng.uci.edu`

F20: 10/1/19-9/30/22: NSF Award 1900654, $550K (UCI's share), A. Markopoulou, K. Psounis, "CNS Core: Medium: Collaborative Research: Privacy-Preserving Mobile Crowdsourced Data".

F19: 9/1/19-8/31/20: NSF Award 1939237, $300K, A. Markopoulou, C.T. Butts, A. Chandramowlishwaran "EAGER: N-Body Algorithms for Mobile and Social Data".

I1: 2/25/19-2/24/21: UCI Office of Research, Seed Funding Grant, $150K, A. Markopoulou, G. Tsudik, C. Butts,"Security, Privacy and Data Analytics of Mobile and IoT Devices".

M1: 10/1/2018-9/30/21: GAANN Fellowship, 'Secure Cyber-physical Systems for Smart Manufacturing', award #P200A180052, PI Guann-Pyng Li + multiple co-PIs. GAANN supported two PhD students (minority and with financial need) so far.

F18: 10/1/18-9/30/21:NSF Award 1815666, $500K, A. Markopoulou, Z. Shafiq, "SaTC: CORE: Small: Collaborative: A Multi-Layer Learning Approach to Mobile Traffic Filtering."

F17: 11/1/2017-3/31/2017: $67K, A.Markopoulou, "AntMonitor for Mobile Data Transparency and Privacy", POP (Proof-of-Concept) Grant by UCI Innovation.

F16: 11/2016-10/2017: Data Transparency Lab (DTL) Gift, $55K, A. Markopoulou, "AntMonitor: On-Device Network Monitoring for Privacy".

F15: 10/2016-09/2019: NSF award 1649372, $300K, A. Markopoulou, "EAGER: A New Framework for Mobile Network Monitoring, Learning and Control".

F14: 09/2015-08/2019: NSF award 1526736, $500K, A. Markopoulou and C.T. Butts, "III: Small: Network Sampling and Construction Methods for Inference and Anonymization".

F13: 9/2012-06/2013: Marie Curie CIG Grant, EU project 321802, €100K awarded (∼€25K spent during one-year sabbatical at ITU, Copenhagen) A. Markopoulou, "SmartOSN: Smartphones meet Online Social Networks" .

F12: 10/2012-03/2014: NSF Award 1258866, $50K, A. Markopoulou "I-CORPS: Microcast: Cooperative Networking of Mobile Devices". (GeorgiaTech Cohort, Oct.-Nov. 2012.)

F11: 10/2012-9/2016: NSF Award 1228995, $800K, "TWC: Medium: Collaborative Proposal: Safety in Numbers: Crowdsourcing for Global Software Integrity", B.Demsky, A.Markopoulou, at UCI. Collaborative proposal with M.Tyler at UCSD.

F7b: 09/2011-08/2012: Supplemental Funding to MURI Subcontract, $50K, A. Markopoulou.

F10: 09/2010-09/2014: NSF Award CDI-1028394, $1,999,503, A.Markopoulou, C.T. Butts, N.Przulj, "Local Topology and Function of Computer, Social, & Biological Networks".

F9: 09/2010-08/2013: AFOSR FA9550-10-1-0310, $585K, A. Markopoulou, L. Swindlehurst, A. Anandkumar, "NetSense: Optimizing Network Configuration for Sensing".

F8: 06/2010-05/2011: Contract with DoCoMo USA Labs, $68,704, A.Markopoulou, "Online Social Networks: Measurements and System Design from a Provider's Perspective".

F7a: 05/2010-08/2010: Supplemental Funding to MURI Award, $18K, A.Markopoulou, supplement to support a collaboration with AT&T Research-Labs.

F7: 09/2009-08/2014: AFOSR FA9550-09-1-0643 (MURI Prime Award to Princeton, PI: Robert Calderbank), subcontract to UCI for $616,700, "Information Dynamics as Foundation for Network Management".

F6: 02/2010-01/2011: NSF CNS-1007615 $25K, A.Markopoulou, "IEEE INFOCOM 2010 Student Travel Grants".

F5: 08/2009-08/2010: NSF CNS-0936144, $25K, A.Markopoulou, "ACM SIGCOMM'09 Student Travel Grants".

F4: 02/2009-06/2009: Contract with DoCoMo USA Labs, $40K, A.Markopoulou, "Design of a new TCP-Friendly Media Transport".

F3 02/2008-01/2013: NSF CNS-0747110, $450K, A. Markopoulou, "CAREER: Network Coding Mechanisms for the Internet".

F2: 09/2008-08/2011: NSF CT-0831530, $400K, A. Markopoulou (UCI) and M. Faloutsos (UCR), "CT-ISG: I-BLOCK: Understanding & Filtering Malicious IP Traffic".

F1: 09/2006-05/2007: VURI gift from AT&T Research, $35K, for research on the topic of "Distributed Denial-of-Service Attacks Mitigation".

Educational Activities

▶ **Research Supervision** *Jan. 2006 - today*

Postdocs and Researchers:

1. Omer Nebil Yaveroglu, PhD from Imperial College, London: Jan. 2014-Sept 2015. Currently with Google, London.
2. Maciej Kurant, PhD from EPFL Lausanne: Mar.-July 2009, Sept.2010-Feb. 2012. Currently with Google, Zurich.
3. Rahmadi Trimananda: PhD from UCI (B.Demsky's group), Oct. 2020 - March 2024. Currently with Comcast Research.
4. Luca Baldesi, PhD from University of Trento, Aug. 2023-2025. Currently with Apple Inc.
5. Tu Le: PhD from University of Virginia, Sept. 2023-2025. Currently an Assistant Professor in CS at the University of Alabama.

Graduated Ph.D students:

1. Hulya Seferoglu, EECS: graduated in Fall 2010, thesis on "Cross-layer Optimization of Coded Wireless Networks", currently a Full Professor in EECS at UIC.
2. Minas Gjoka, Networked Systems: graduated in Fall 2010, thesis on "Measurements of Online Social Networks", currently with Google, Santa Monica.
3. Fabio Soldo, Networked Systems: graduated in Summer 2011, thesis on "Defense Mechanisms Against Internet Malicious Traffic: Data Analysis and Algorithms"; with Google Inc. Mountain View, CA.
4. Pegah Sattari, EECS, graduated in June 2012, thesis on "Network Tomography with Network Coding." Currently with Apple Inc.
5. Anh Le, Computer Science (ICS), graduated in June 2012, thesis on "Defense against Pollution Attacks in Network Coding". Co-Founder & CTO of Shoelace Wireless Inc.
6. Abinesh Ramakrishnan, EECS, graduated in March 2015, thesis on "Precoding-Based Techniques for Multiple Unicasts in Wired and Wireless Networks." Currently at Huawei R&D, Santa Clara.
7. Chun Meng, EECS, graduated in Sept. 2014, thesis on "Effects of Network Structure on Achievable Rates for Multiple Unicasts."
8. Blerim Cici, Networked Systems, graduated in June 2016, thesis on "Mobile Data Analysis for Smart City Applications". Currently with Apple, Cupertino.
9. Anastasia Shuba, EECS, graduated in June 2019, thesis on "Mobile Data Transparency and Control," currently with Broadcom, Culver City.
10. Balint Tillman, Networked Systems, graduated in Aug. 2019, thesis on "Graph Construction using the dK-Series Framework", currently with Google, Mountain View, CA.
11. Manos Alimpertis, Networked Systems, graduated in June 2020, thesis on "Mobile Coverage Map Prediction", currently with Apple, Cupertino, CA.

12. Evita Bakopoulou, Networked Systems, graduated in Dec. 2021, thesis on "Federated Learning for Mobile Data Privacy", now with Privacy Engineering, Google, Mountain View, CA.
13. Janus Varmarken, Networked Systems, graduated in June 2023, thesis on "Privacy Implications of SmartTVs," now with Juniper Networks.
14. Hieu Le, EECS, thesis on "Automated Filter Rule Generation for Adblocking," graduated in Sept. 2023, now senior technical staff at FTC Office of Technology.
15. Hao Cui, Networked Systems, thesis on "Automated Privacy Policy Analysis for Auditing Data Collection," graduated in Dec. 2024, now with Google.
16. Jad Araaj, EECS, graduated in June 2026, thesis on "IoT Transparency and Bystander Privacy in Smart Spaces," now with Google, Sunnyvale, CA
17. Olivia Figueira, Computer Science (co-advised with Scott Jordan), graduated in June 2026, thesis on "Auditing and Improving Children?s Online Privacy and Safety," now a postdoc at CITRIS, at UC Berkeley.

Current Ph.D. students:

1. Mengwei Yang, EECS.
2. Yu Duan, Networked Systems.
3. Ismat Jarin, Computer Science.
4. Ke Yang, EECS.
5. Brian Huang, Networked Systems.

M.S. Students Supervised (and Funded):

- Zixiao Zong, Networked Systems, co-advised with C. Butts.
- Ting Tse Chang, MCS student, paid summer internship in 2023, developed "AutoFR as a service".
- Jad Al Araaj, EECS, MS Thesis on "Mixed Reality Visualization of Tracking in IoT", June 2023
- Stelios Stavroulakis, EECS, co-advised with I. Panageas, MS thesis on "'Computing Nash Equilibria in Adversarial Stochastic Team Games", June 2022.
- Milad Asgari, Networked Systems, MS thesis on "A Recommendation Systems Approach for Detecting Privacy Leaks", May 2019.
- Nivedhita Sathyamurthy, MS thesis on "Visualization of Individual Mobile Data", Feb. 2017; currently with Facebook, Menlo Park.
- Yan Wang: MS thesis on "Visualization of Geo-Social Data", Spring 2012; currently with Microsoft (Development), Redmond.
- Karthik Raman: MS thesis on "Classification and Detection of Polymorphic Malware", Winter 2011.
- Giuseppe Valente: supported and advised Sept.2007 -Dec. 2008; M.S. thesis on "Using multiple paths to improve end-to-end performance"; currently with Arista Networks, Palo Alto, CA.

Visiting Students:

- Devris Isler, PhD student at IMDEA, Spain, visiting Sept-Dec. 2022.
- Tianyue Chu, PhD student at IMDEA, Spain, visiting Sept-Dec. 2022. Working on Private Pruned Federated Learning.

– Luca Baldesi, PhD student at University of Trento, Italy, visiting April-August 2016. Worked on Graph Construction using spectral methods.

– Janus Varmarken and Simon Langhoff: MS students at ITU, Copenhagen, Visiting Aug.- Jan. 2014. Implemented an android app for monitoring network traffic on a mobile devices.

– Balint Tillman: MS student at ITU, Copenhagen. Visiting Feb-June 2014. Studied algorithms for graph construction. Joined UCI later for Ph.D.

– Omer Nebil Yaveroglu: Ph.D. student at Imperial, London. Visited Aug.-Sept. 2011. Studied the structure of biological and social networks, co-advised by Profs. Przulj and Butts.

– Lorenzo Keller: Ph.D. student, visiting from EPFL, Lausanne, Switzerland. Visited in May 2011 and Oct. 2011. He worked on implementing network coding on smartphone devices.

– Francesco Malandrino: Ph.D. student, visiting from Politechnico di Torino, Italy. Visited during the period Sept. 2010 - Feb. 2011 and June 2011. Worked on "Online Social Networks from a Mobile Operator's Perspective".

– Alessandra Tripodi: visitor from Univ. of Padova, Italy; partially supported & co-advised (2009); thesis on "countering pollution attacks in network coding".

External Committees:

– External member of the Ph.D. thesis committee of Devris Isler, IMDEA Networks, Madrid, Spatin, Aug. 2025. (Advisor: N.Laoutaris).

– External member of the Ph.D. thesis committee of Siby Sandra Deepthy in EPFL, Lausanne, Aug. 2022 (Advisor: C. Troncoso).

– External member of the Ph.D. thesis committee of Lorenzo Keller in EPFL, Lausanne, July 2012 (Advisor: C.Fragouli).

– External member of the Ph.D. thesis committee of Christine Neuberg in EPFL, Lausanne, July 2011 (Advisor: R.Urbanke).

– External member of the Ph.D. thesis committee of Maciej Kurant in EPFL, Lausanne, 2009 (Advisor: P.Thiran).

– External member of the M.S. thesis committee of Ramya Srinivasan in EPFL, Lausanne, 2007 (Advisor: C.Fragouli).

Undergraduate Advising and Funding:

– Research supervision and funding: Koshik Kumaravel (summer 2026); Pranathi Chamarthi (2025-26), Honors (CHC) Thesis and NSF-REU; Alison Marie Iversen (2023-25) – NSF REU, Shraddha Hardikar (2023-25) – NSF REU; Justin Ley (2020-22), co-author in [J30]; Janice Ho (2020), co-author in [C63]; Yiyu Qian and Qingchuan Yang (2021).

– Funded for teaching in ProperData Summer Workshop: Alison Iversen (2023).

▶ **UCI's Division of Teaching Excellence and Innovation (DTEI)** *2024-today*

– Co-PI of a DTEI IMPACT grant (see Funding [I5]) on developing AI tools that automate and enhance student assessment, 2026.

– Faculty Mentor for DTEI Summer Graduate Scholar, Olivia Figueira who worked on AI tools for instruction of large CS classes, 2025.

– Faculty Mentor for DTEI Summer Graduate Scholar, Diana Romero on a python instructional module that was used in a highschool camp, 2024.

▶ **Engineering School, UC Irvine** *2022- 2025*

– As **Associate Dean** for Graduate and Professional Studies 2022-25: separated the professional master's from the state graduate programs and re-orged the staff; led the implementation of the UAW contracts 2023-24; revamped the graduate fellowships process; launched mentoring and career development programs listed next.

– Established, for the first time, **outstanding graduate student awards** in research and leadership, June 2025.

– Launched and ran the monthly seminar series "**Preparing Future Faculty**'", to prepare and place Ph.D. students for academic careers, in AY 2023-24 and 2024-25.

– Co-organized information sessions and writing clinics to prepare SSoE students to apply for **NSF GRFP** fellowships: Fall 2022-2024.

– Sponsored student-run academic development workshops and participated in panels: Graduate Student Association for EECS (GEECS), March 2023; joint GEECS & WiCys event, May 2023; STEM-GPS panel on women in engineering, Fall 2023.

▶ **Networked Systems Program, UC Irvine** *2011- 2017*

– Program Co-Director *2015-2017*

– Program Director *2013-2015*

– Program Co-Director *2011-2012*

▶ **ProperData Center, Educational Activities** *2020-2025*

– Launched monthly "ProperData Seminar Series: Privacy Frontiers", AY 2023-24 and AY 2024-25: `https://properdata.eng.uci.edu/events/properdata-seminar-series/`.

– Organized and led Privacy and IoT Research Exploration Workshops for undergraduate, community college, and high school students:

#1 `https://properdata.eng.uci.edu/2021/06/04/properdata-explorecsr-workshop-diversifying-cybersecurity-and-privacy-research/`, virtual, 3 Saturdays in May 2021. Focus on Tracking.

#2 `https://properdata.eng.uci.edu/events/privacyiot-workshop-2/`, in-person residential program, June 20-July 1st, 2022. Focus on Voice Assistants, Tracking and Advertising.

#3 `https://properdata.eng.uci.edu/events/privacyiot-workshop-3/`, in-person commuter program, June 20-30, 2023. Focus on Voice Assistants, Social Media Recommendations and Tracking.

#4: `https://properdata.eng.uci.edu/events/privacyiot-ai-4/`, in-person commuter program for **high school students**, June 23-28, 2024. Focus on Generative AI and Internet-of-Things. Hands-on project: build-your-own voice assistant from scratch.

▶ **Courses Taught at UC Irvine** *Jan. 2006 - today*

Undergraduate classes:

– *EECS148 (Intro to Computer Networks):* Spring 2011, Spring 2012, Fall 2013, Spring 2015, Fall 2016, Fall 2017 (2 sessions, ∼450 students), Spring 2019 (340 students), Spring 2020 (350 students), Spring 2026 (300 students).

– *EECS140 (Eng. Probability):* Spring 2006, Spring 2007, Spring 2008, Winter 2010.

Graduate classes:

– *EECS215(Design and Analysis of Algorithms):* Fall 2009, Fall 2010, Fall 2011, Fall 2014, Fall 2015, Winter 2017, Winter 2018, Fall 2018.

– *EECS248B/NetSys250 (Performance Analysis of Networks):* Winter '07, '08.

– *EECS246/NetSys256 (Network Coding):* Fall 2009, Winter 2011.

– *EECS298/EECS/221/NetSys270 (Advanced Topics):*

∗ Current: Data Privacy (Winter 2019, Spring 2022, Spring 2023); this evolved into a permanent EECS232 class on "Data Privacy".

∗ Past: Advanced Topics on Networking (Spring 2007, Spring 2008); Network Coding (Fall 2009, Winter 2011, Winter 2012); Topics on Network Science & Applications (Winter 2016, Spring 2017)

– *NetSys295 (Networked Systems/Distinguished Speakers):* Winter 2008, Spring 2009.

▶ **IT University of Copenhagen** *(on sabbatical) 2012-13*

– Taught one undergraduate course on *Algorithms and Data Structures*, Fall 2012.

– Advised two bachelor theses in software development: (i) "Cooperative web browsing on mobile devices" (J. Varnarken and S. Langhoff); (ii) "Peer-to-peer aided mobile game server" (J. Kristensen); June 2013.

– Advised a group project (4 MS/Ph.D. students) in advanced algorithms: "Methods for construction of graphs with a given joint degree distribution", June 2013.

– Co-advised MS Thesis"Towards 3K-Graph Construction" (B. Tilman), June 2014.

Broadening Participation

▶ ProperData **Summer Programs** on "Privacy and IoT Research Exploration": `https://properdata.eng.uci.edu/events/summer-programs`.

– 3 online workshops, 60 participants from community colleges, May 2021. Supported by Google's ExploreCSR [F22].

– 2-weeks in-person summer camp at UCI, 22 participants from undergraduate 4y and 2y colleges , June 2022.

– 2-weeks commuter summer camp at UCI, 18 participants from undergraduate 4y and 2y colleges, June 2023.

– 1-week commuter summer camp at UCI, 24 participants from high schools, June 2024, `https://properdata.eng.uci.edu/events/privacyiot-ai-4/`

▶ Grants:

– PI of Google ExploreCSR to host research-focused workshops for under-represented students 2020-21. See also [F22] funding and workshops listed above.

– Co-PI in a GAANN Fellowship, supported one student 2019-21. See [M1] funding.

▶ NASEM Outreach:

– Participated in NAE Meeting "Engineer Girl" -"Meet the Speakers" event at Beckman center; and visit at UCI, May 2022.

- Judge at NAE's Global Grand Challenges Student Competition Playoffs, Beckman Center, Irvine, CA, April 23, 2019.

▶ Involvement in Women Organizations:

- Panelist on WITHITS Panel and Alumni-in-Industry panel, at IEEE ISIT, Athens, Greece, July 2025.
- Society of Women Engineers (SWE) at UCI: talk at SWE Research Mixer, 2026; co-sponsored SWE OC PDC conference at UCI, May 2024; keynote speaker, Jan. 2016.
- Panelist for GPS-STEM's panel on Women Faculty in Engineering, Fall 2023.
- Women in Tech at UCI: 2022 Recipient of the"Women in Tech Applause", https://womenintech.uci.edu/applause/2022-applause-recipients, Feb. 2022.
- N2Women Star Award, 2022; N2Women Mentor in INFOCOM 2018.
- WiCys (Women in Cybersecurity): Founding faculty advisor for new WiCys chapter at UCI since 2018. The first and the current presidents were my PhD students. and most members are affiliated with ProperData. Sponsoring and participating in their academic development events. `https://sites.uci.edu/wicys/team/`.

▶ Other Activities:

- Invited talk and demos in UCI OAI's summer camp for AISS (Achievement Institute for STEM Scholars), UCI, July 2026.
- Leadership Training: UCWI Training: "UC Women's Initiative for Professional Development," Fall 2020; UCI Merage Women's Certificate in Leadership, July 2019.
- Keynote speaker at Athena Olympiad (STEM for middle school and high school girls), UC Irvine, April 2019.
- Faculty Participant in South Asia Pacific Workshop by Broadcom Foundation, May 2018, Pasadena, CA;
- Panelist: "Women in IoT Annual Workshop", Sept. 2021; "This is What a Scientist/Engineer Looks Like: Changing the Face of STEM", Spring 2014, UCI.

Publications

J: journal, *C:* conference, **C:* a conference with journal-style review process, *I:* invited, *TR:* technical report, *S:* short paper and/or poster.

▶ Journal Papers

J38 Rahmadi Trimananda, Athina Markopoulou, Scott Jordan, "Privacy Policies as an Interface between Systems and Laws", *accepted to Communications of the ACM (CACM),* July 2026.

J37 Jad Al Aaraj, Olivia Figueira, Tu Le, Isabela Figueira, Rahmadi Trimananda, Athina Markopoulou, ?VBIT: Towards Enhancing Privacy Control Over IoT Devices,? *in ACM Transactions on Internet of Things,* July 2026. `https://doi.org/10.1145/3833082.`

J36 Mengwei Yang, Baturalp Buyukates, Yanning Shen, Athina Markopoulou, ?DuoShapley: Adaptive and Scalable Shapley Value Approximation for Federated Learning,? *in Transactions in Machine Learning (TMLR)*, July 2026.

J34 Divya Anand Sinha, Yezi Liu, Ruijie Du, Athina Markopoulou, Yanning Shen, "Gradient Inversion Attack on Graph Neural Networks", *accepted to the Transactions in Machine Learning Research (TMLR)*, June 2025. Also at arxiv.org/abs/2411.19440.

J33 Tianyue Chu, Mengwei Yang, Nikolaos Laoutaris, Athina Markopoulou, "PriPrune: Quantifying and Preserving Privacy in Pruned Federated Learning," *in IEEE Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)*, Oct 2024. Also at arxiv:2310.19958.

J32 Hieu Le, Salma Elmalaki, Athina Markopoulou, Zubair Shafiq, ?AutoFR: Automated Filter Rule Generation for Adblocking?, *in ACM Transactions on Privacy and Security (TOPS)*, Issue 28:1, Dec. 2024.

J31 Evita Bakopoulou, Mengwei Yang, Jiang Zhang, Justin Ley, Konstantinos Psounis, Athina Markopoulou, "Location Leakage in Federated Signal Maps", *to appear in IEEE Transactions on Mobile Computing*, Oct. 2023, *doi: 10.1109/TMC.2023.3332034*.

J30 E. Alimpertis, A. Markopoulou, Carter T. Butts, E. Bakopoulou, K. Psounis, "A Unified Prediction Framework for Signal Maps: Not All Measurements are Created Equal," *in IEEE Transactions on Mobile Computing,* pp.1-18, Dec. 2022, *doi:10.1109 TMC.2022.3221773*.

J29 Evita Bakopoulou, Balint Tillman, Athina Markopoulou, "FedPacket: A Federated Learning Approach to Mobile Packet Classification", in IEEE Transactions on Mobile Computing, Feb. 2021, *doi: 10.1109/TMC.2021.3058627*.

J28 L. Baldesi, A. Markopoulou, C. T. Butts, "Spectral Graph Forge: A Framework for Generating Synthetic Graphs with a Target Modularity," *in IEEE/ACM Trans. on Networking*, Vol. 27(5), pp.2125-2136, Oct. 2019.

J27 B. Tillman, A. Markopoulou, M. Gjoka, C. T. Butts, "2K+ Graph Construction Framework: Targeting Joint Degree Matrix and Beyond," *in IEEE/ACM Trans. on Networking*, Vol. 27(2), pp. 591-606, April 2019.

J26 Anh Le, Arash Tehrani, Alex Dimakis, Athina Markopoulou, "Recovery of Packet Losses in Wireless Broadcast for Real-Time Applications, *in IEEE/ACM Transactions on Networking*, Vol. 25(2), pp. 676–689, April 2017.

J25 A. Le, L. Keller, H. Seferoglu, B. Cici, C.Fragouli, A. Markopoulou, "MicroCast: Cooperative Video Streaming using Cellular and Local Connections," *in IEEE/ACM Transactions on Networking*,Vol. 24 (5), pp. 2983 – 2999, Oct. 2016.

J24 A. Le A. Markopoulou, A. Dimakis, "Auditing for Distributed Storage System," *in IEEE/ACM Transactions on Networking*, Vol. 24 (4), Aug. 2016.

J23 F. Malandrino, M. Kurant, A. Markopoulou, C. Westphal, U. Kozat, "Minimizing Peak Load from Information Cascades: Social Networks Meet Cellular Networks," *in IEEE Trans. on Mobile Computing*, Vol. 15(4), April 2016.

J22 C. Meng, A. K. Das, A. Ramakrishnan, S.A. Jafar, A. Markopoulou and S. Vishwanath, "Precoding-Based Network Alignment For Three Unicast Sessions," *in IEEE Transactions on Information Theory*, Vol. 61(1), pp. 426 – 451, Jan. 2015.

J21 Omer Nebil Yaveroglu, Sean M. Fitzhugh, Maciej Kurant, Athina Markopoulou, Carter T. Butts, Natasa Przulj, "ergm.graphlets: a package for ERG modelling based on graphlet properties," *in Journal of Statistical Software*, Vol. 65, Issue 12, June 2015.

J20 P. Sattari, M. Kurant, A. AnandKumar, M. Rabbat, A. Markopoulou, "Active Learning of Multiple Source Multiple Destination Topologies," *in IEEE Transactions on Signal Processing*, Vol. 62 (8), pp. 1926-1937, April 2014.

J19 Hulya Seferoglu, Athina Markopoulou, "Network Coding-Aware Queue Management for TCP Flows over Coded Wireless networks", *in IEEE/ACM Trans. on Networking*, Vol. 22, Issue 4, Sept. 2013.

J18 P. Sattari, A. Markopoulou, C. Fragouli, M. Gjoka, "A Network Coding Approach to Loss Tomography," in *IEEE Transactions on Information Theory*, Vol. 59, Issue 3, pp. 1532 - 1562, March 2013.

J17 E. Magli, M.Wang, P.Frossard, A.Markopoulou, "Network Coding meets Multimedia: a Review", *in IEEE Trans. on Multimedia*, March 2013.

J16 P. Sattari, C. Fragouli, A. Markopoulou, "Active topology Inference using Network Coding," *in the Elsevier Physical Communication: Special Issue on "Network Coding and its Applications to Wireless Communications*, Vol. 6, pp. 142 - 163, March 2013.

J15 Anh Le, Athina Markopoulou, "Cooperative Defense against Pollution Attacks using SpaceMaC," *in IEEE JSAC on "Cooperative Networking Challenges and Applications"*, vol. 30 (2), pp. 442-449, Feb. 2012.

J14 F.Soldo, A.Argyraki, A.Markopoulou, "Optimal Filtering of Malicious IP Sources," *in IEEE/ACM Transactions on Networking*, vol. 20(2), pp. 381395, July 2011.

J13 M.Gjoka, M.Kurant, C.T. Butts, A. Markopoulou, "Practical Recommendations on Sampling Online Social Networks," *in IEEE JSAC on "Measurements of Internet Topologies"*, vol. 29(9), Oct. 2011.

J12 M.Gjoka, C.T. Butts, M.Kurant, A.Markopoulou, "Multigraph Sampling of Online Social Networks," *in IEEE JSAC on "Measurements of Internet Topologies"*, vol. 29 (9), Oct. 2011.

J11 M. Kurant, A. Markopoulou, P. Thiran, "Towards Unbiased BFS Sampling," *in IEEE JSAC on "Measurements of Internet Topologies"*, vol. 29 (9), Oct. 2011.

J10 F.Soldo, A.Le, A.Markopoulou, "BRS: a Blacklisting Recommendation System", *in IEEE JSAC on "Forensics for Communications and Networking,"* vol. 29 (7), pp. 1423 – 1438, Aug. 2011.

J9 H.Seferoglu, A.Markopoulou, U.Kozat, J.Kempf, R.Cinvalar, "Dynamic FEC Algorithms for TFRC Flows," *in IEEE Trans. on Multimedia*, vol. 12 (8), pp. 869–885, Dec. 2010.

J8 H.Seferoglu, A.Markopoulou, "Video-Aware Opportunistic Network Coding over Wireless Networks", *in IEEE JSAC, Special Issue on Network Coding over Wireless Communication Networks*, vol. 27 (5), pp. 713–728, June 2009.

J7 Y.Li, A. Markopoulou, J.Apostolopoulos, N.Bambos, "Content-Aware Playout and Packet Scheduling for Video Streaming over Wireless Links", *in IEEE Trans. on Multimedia*, vol. 10 (5), pp. 885 – 895, Aug. 2008.

J6 A. Markopoulou, G.Iannaccone, S.Bhattacharyya, C.N.Chuah, Y.Ganjali, C.Diot, "Characterization of Failures in an Operational IP Backbone Network," *in IEEE/ACM Trans. on Networking,* Vol. 16 (4), pp. 749 – 762, Aug. 2008.

J5 Y. Li, A. Markopoulou, N. Bambos, J. Apostolopoulos, "Joint power-playout control for media streaming over wireless links", *in IEEE Transactions in Multimedia*, vol.8 (4), pp. 830 – 843, Aug. 2006.

J4 A. Markopoulou, F. Tobagi, and M. Karam, "Loss and Delay Measurements of IP Backbone Networks," *in Elsevier Computer Communications Journal - Special Issue on Measurements and Monitoring of IP Networks)*, vol.29, pp. 1590–1604, June 2006.

J3 A. Markopoulou, F. Tobagi, and M. Karam, "Assessing the Quality of Voice Communications over Internet Backbones," in *IEEE/ACM Transactions on Networking*, vol.11 (5), pp.747-760, Oct. 2003.

J2 S. Guha and A. Markopoulou, "Hierarchical Reliable Multicast: Performance Analysis and Placement of Proxies," in *Elsevier Computer Communications Journal*, vol.26, pp. 2070–2081, Oct. 2003.

J1 A. Markopoulou and M. Anagnostou, "Optimal Grouping of Components in a Distributed System," in *Elsevier Computer Communications Journal*, vol.21, pp.1452–1461, 1998.

▶ Peer-Reviewed Conferences

C74 Ismat Jarin, Olivia Figueira, Yu Duan, Tu Le, Athina Markopoulou, "VR ProfiLens: User Profiling Risks in Consumer Virtual Reality Apps," in Proc. of the Symposium on Usable Security and Privacy (USEC) 2026, co-located with NDSS 2026, San Diego, CA, Feb. 2026.

C73 Tu Le, Luca Baldesi, Athina Markopoulou, Carter T. Butts, Zubair Shafiq, "From Voice to Ads: Auditing Commercial Smart Speakers for Targeted Advertising based on Voice Characteristics," *in Proc. of ACM Internet Measurement Conference (IMC) 2025,* Madison, Wisconsin, Nov. 2025.

*C72 Ismat Jarin, Yu Duan, Rahmadi Trimananda, Hao Cui, Salma Elmalaki, Athina Markopoulou, "BehaVR: User Identification Based on VR Sensor Data," in Proc. of 25th Privacy Enhancing Technologies Symposium (PETS 2025), Washington DC, July 2025.

*C71 Hao Cui, Rahmadi Trimananda, Athina Markopoulou, "Understanding Privacy Norms through Web Forms," in Proc. 25th Privacy Enhancing Technologies Symposium (PETS 2025), Washington DC, July 2025.

C70 Renascence Tarafder Prapty, Rahmadi Trimananda, Sashidhar Jakkamsetti, Gene Tsudik, Athina Markopoulou, "MADEA: A Malware Detection Architecture for IoT blending Network Monitoring and Device Attestation," in Proc. of IEEE ICC 2025, Montreal, Canada, June 2025.

C69 Olivia Figueira, Rahmadi Trimananda, Athina Markopoulou, Scott Jordan, "DiffAudit: Auditing Privacy Practices of Online Services for Children and Adolescents," in ACM Internet Measurement Conference (IMC) 2024; Madrid Spain, Nov. 2024.

- ACM IMC 2024, Best Student Paper Award.

C68 U. Iqbal,P. N. Bahrami,R. Trimananda,H. Cui,A. Gamero-Garrido,D. Dubois,D. Choffnes,A. Markopoulou,F. Roesner,Z. Shafiq,"Tracking, Profiling, and Ad Targeting in the Alexa Echo Smart Speaker Ecosystem," in Proc. of ACM Internet Measurement Conference (IMC) 2023, Montreal, Canada, Oct. 2023.

- ACM IMC 2023 Best Paper Award.
- Caspar Bowden PET Runner-Up Award for 2024.
- Media coverage: The Verge (April 2022), The Register (April 2022), Axios (June 2022), APNews, The Data Skeptic Podcast, Repubblica, Fox News (Aug. 2022), MuckRack TV report, LA Times (Aug. 2022), PCMag, Reddit, YCombinator News, Breitbart, ABP Live, News18, and many more.
- Invited for presentation ("Your Echos are Heard") to the 2022 PrivacyCon event of the Federal Trade Commission (FTC), Nov. 2022.
- More information: `properdata.eng.uci.edu/2023/10/24/smart-speaker-work-awarded-best-paper-at-imc-23/`.

- Also presented in the "Best of the Rest" session at ACM SIGMETRICS 2025, `https://www.sigmetrics.org/sigmetrics2025/best_of_the_rest.html`.

*C67 H. Cui, R. Trimananda, A. Markopoulou, and S. Jordan, "PoliGraph: Automated Privacy Policy Analysis using Knowledge Graphs," in Proc. of the 32nd USENIX Security Symposium (SEC) 2023, Anaheim, CA, Aug. 2023.

*C66 H. Le, S. Elmalaki, A. Markopoulou, Z. Shafiq, "AutoFR: Automated Filter Rule Generation for Adblocking," *to appear in Proceedings of the 32nd USENIX Security Symposium (SEC)* 2023, August 2023, Anaheim, CA.

- Invited presentation at the Ad Filtering Developer Summit (AFDS) 2022.

*C65 Z. Zong, M. Yang, J. Ley, C.T. Butts, A. Markopoulou, "Privacy by Projection: Federated Population Density Estimation by Projecting on Random Features," *in Proceedings of Privacy Enhancing Technologies (PoPETs)*, 2023(1), Lausanne, Switzerland, July 2023.

*C64 J. Varmarken, R. Trimananda, J. Araaj, A. Markopoulou, "FingerprinTV: Fingerprinting SmartTV Apps," *in Proceedings of Privacy Enhancing Technologies Symposium (PETS/PoPETs)*, Sydney, Australia, July 2022.

*C63 R. Trimananda, H. Le, H. Cui, J. T. Ho, A. Shuba, A. Markopoulou, "OVRSeen: Auditing Network Traffic and Privacy Policies in Oculus VR", *in Proc. of the 31st USENIX Conference on Security Symposium (SEC) 2022*, Aug.2022, Boston, USA.

- Invited for presentation at the Federal Trade Commission (FTC)' PrivacyCon 2022.
- Media coverage: Register (April 2022), README (Nov. 2022).

*C62 H. Le, Z Shafiq, A. Markopoulou, "CV-INSPECTOR: Towards Automating Detection of Adblock Circumvention," *in Proc. of Network and Distributed System Security Symposium (NDSS) 2021*, San Diego, CA Feb. 2021. *(acceptance rate 15.2%)*

*C61 J. Varmarken, H. Le, A. Shuba, A. Markopoulou, Z. Shafiq, "The TV is Smart and Full of Trackers: Measuring Smart TV Advertising & Tracking," *in Proceedings of Privacy Enhancing Technologies Symposium (PETS/PoPETS) 2020*, Issue 2, pp. 129-154, May 2020.

- Invited presentation at Federal Trade Commission (FTC)' PrivacyCon 2021.

*C60 A. Shuba, A. Markopoulou, "NoMoATS: Towards Automatic Detection of Mobile Tracking," *in Proc. of Privacy Enhancing Technologies Symposium (PETS/PoPETS) 2020*, Issue 2, pp. 45-66, May 2020.

*C59 R. Trimananda, J. Varmarken, A. Markopoulou, B. Demsky, "Packet-Level Signatures for Smart Home Devices," in Proc. of Network and Distributed System Security Symposium (NDSS) 2020. February 2020, San Diego, CA. (Acceptance rate 18%)

C58 E. Alimpertis, A. Markopoulou, K. Psounis, C.T. Butts, "City-Wide Signal Strength Maps: Prediction with Random Forests", In Proc. of The Web Conference (WWW) 2019, pp. 2536 – 2542, May 2019, San Fransisco, USA .

*C57 A. Shuba, A. Markopoulou, Z. Shafiq, "NoMoAds: Effective and Efficient Cross-App Mobile Ad-Blocking", in the Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs) 2018, Issue 4. July 2018, Barcelona, Spain.

- The Andreas Pfitzmann best student paper award,

C56 L. Baldesi, C.T Butts, A. Markopoulou, "Spectral Graph Forge: Graph Generation Targeting Modularity," *in Proc. of IEEE INFOCOM 2018 (acceptance rate 19.2%)*, Honolulu, HI, 2018. [Code contributed to NetworkX.]

C55 B. Tillman, A. Markopoulou, C.T Butts, M.Gjoka, "Construction of Directed 2K Graphs," *in Proc. of KDD 2017 and poster presentation (acceptance rate 17% among all submitted papers)*, Halifax, Canada, Aug. 2017.

C54 B. Cici, A. Markopoulou, N. Laoutaris, "ORS: A Scalable Online Ridesharing System, *in Proc. of 9th ACM SIGSPATIAL International Workshop on Computational Transportation Science (IWCS2016)*, San Francisco, CA, Oct. 2016.

C53 B.Cici, E. Alimpertis, A. Ihler, A. Markopoulou, "Cell-to-cell Activity Prediction for Smart Cities", *in Proc. of INFOCOM 2016 Workshop on Smart Cities and Urban Computing (SmartCity 2016)*, San Francisco, CA, April 2016.

C52 Abinesh Ramakrishnan, Cedric Westphal, Athina Markopoulou, An Efficient Delivery Scheme for Coded Caching, *in Proc. of ITC 27*, Ghent, Belgium, Sept. 2015.

C51 A. Le, J. Varmarken, S. Langhoff, A. Shuba, M. Gjoka, A. Markopoulou, AntMonitor: A System for Monitoring from Mobile Devices, *in Proc. of ACM SIGCOMM Workshop on Crowdsourcing and Crowdsharing of Big Internet Data (C2BID)*, London, UK, Aug. 17, 2015.

C50 B.Cici, M.Gjoka, A. Markopoulou, C.Butts, "On the decomposition of cell phone activity patterns and their connection with urban ecology," *in Proc of ACM MobiHoc*, Hangzhou, China, June 2015.

C49 M.Gjoka, B. Tillman, A. Markopoulou, "Construction of Simple Graphs with a Target Joint Degree Matrix and Beyond," *in Proc. of IEEE INFOCOM 2015*, Hong Kong, April 2015.

C48 B. Cici, N. Laoutaris, E. Frias-Martinez, A. Markopoulou, "Assessing the Potential of Ride-Sharing Using Mobile and Social Data – A Tale of Four Cities," *in Proc of Ubicomp 2014*, Seattle, Sept. 2014.

* Best Paper Nominee Award, top 5%.
* Media coverage: Mentioned in MIT Technology Review article "Google Could Reinvent Commuting," July 2015.

C47 C. Meng, A. Markopoulou, "On Routing-Optimal Networks for Multiple Unicasts," *in Proc. of IEEE ISIT 2014*, Honolulu, Hawai, July 2014.

C46 Chun Meng, Hulya Seferoglu, Athina Markopoulou, Kenneth W. Shum, Chung Chan,"MPC: Multicast Packing for Coding across Multiple Unicasts," *in Proc. of NetCod 2013*, Calgary, Canada, June 2013.

C45 Anh Le, Arash Saber Tehrani, Alex Dimakis, and Athina Markopoulou, "Instantly Decodable Network Codes for Real-Time Applications," *in Proc. of NetCod 2013*, Calgary, Canada, June 2013.

C44 Pegah Sattari, Maciej Kurant, Animashree Anandkumar, Athina Markopoulou, Michael Rabbat, "Active Learning of Multiple Source Multiple Destination Topologies," *in Proc. of CISS 2013*, John Hopkins, Baltimore, Maryland, March 2013.

C43 B. Cici, A. Markopoulou, E. Fras-Martnez, N. Laoutaris, Quantifying the Potential of Ride-Sharing using Call Description Records, *in Proc. of ACM HotMobile 2013*, Feb. 2013.

C42 M.Gjoka, M.Kurant, A.Markopoulou, "2.5K-Graphs: from Sampling to Generation, *in Proc. of IEEE INFOCOM 2013*, Turin, Italy, March 2013. *(acceptance rate 17.5%)*

C41 A. Le, L. Keller, C. Fragouli, and A. Markopoulou, "MicroPlay: a Networking Framework for Local Multiplayer Games, *in the 1st SIGCOMM Workshop on Mobile Gaming (MobiGames)*, Helsinki, August 2012.

C40 M.Kurant, M. Gjoka, Y. Wang, Z.Almquist, C.Butts, A. Markopoulou, "Coarse-Grained Topology Estimation via Graph Sampling", *in SIGCOMM Workshop on Online Social Networks (WOSN'12)*, Helsinki, Aug. 2012.

C39 C. Meng, A. Ramakrishnan, A. Markopoulou, S.Jafar, "On the Feasibility of Precoding-Based Network Alignment for Three Unicast Sessions," *in Proc. of IEEE ISIT 2012*, Boston, MA, July 2012.

C38 A. Le and A. Markopoulou, "NC-Audit: Auditing for Network Coding Storage", *in Proc. of the International Symposium on Network Coding (NetCod)*, Cambridge, MA, June 2012.

C37 L. Keller, A. Le, B. Cici, H. Seferoglu, C. Fragouli, A. Markopoulou, "MicroCast: Cooperative Video Streaming on Smartphones," *in Proc. of ACM MobiSys 2012*, Low Wood Bay, Lake District, United Kingdom, June 25-29, 2012. (acceptance rate 17.5 %)

- Runner up for best paper award in MobiSys 2012 (i.e, one of the best 5 papers in the conference).
- Demo won first place in AMASE 2012 (competition on mobile apps).
- 3rd place in the Wireless Innovation Open Mic, CTIA, Las Vegas, May 2013.
- 2nd place in Mobicom Mobile App Competition, Maiami, FL, Oct. 2013.

C36 A. Le and A. Markopoulou, "On Detecting Pollution Attacks in Inter-Session Network Coding," *in Proc. of IEEE INFOCOM 2012*, Orlando, Florida, March 2012. *(acceptance rate $\sim$ 18 %)*

C35 F. Malandrino, M.Kurant, A. Markopoulou, C.Westphal, U.Kozat, "Proactive Seeding for Information Cascades in Cellular Networks," *in Proc. of IEEE INFOCOM 2012*, Orlando, Florida, March 2012. *(acceptance rate $\sim$ 18 %)*

C34 M.Kokkodis, M.Faloutsos, A.Markopoulou, "Network-level characteristics of Spamming: An empirical analysis," *in Proc. of ICNP Workshop on Trust and Security in the Future Internet (FIST) 2011*, Vancouver, BC Canada, Oct. 2011.

C33 H. Seferoglu, A. Markopoulou, M. Medard, "NCAPQ: Network Coding-Aware Priority Queueing for UDP Flows over COPE," *in Proc. of NetCod 2011*, Beijing, China, July 2011.

C32 Anh Le, Athina Markopoulou, "TESLA-Based Defense Against Pollution Attacks in P2P Systems with Network Coding," *in Proc. of NetCod 2011*, Beijing, China, July 2011.

C31 P. Sattari, A. Markopoulou, C. Fragouli, "Maximum Likelihood Estimation for Multiple-Source Loss Tomography with Network Coding," *in Proc. of NetCod 2011*, Beijing, China, July 2011.

C30 M. Kurant, M. Gjoka, C.T. Butts, A. Markopoulou, "Walking on a Graph with a Magnifying Glass, " *in Proc. of ACM SIGMETRICS 2011*, pp: 281–292, San Jose, CA, June 2011. *(acceptance rate $\sim$ 15 %)*

C29 H. Seferoglu, A. Markopoulou, K. K. Ramakrishnan, "I2NC: Inter- and Intra- Session Network Coding," *in Proc. of IEEE INFOCOM 2011*, pp: 1035–1043, Shanghai, China, April 2011. *(acceptance rate 15.96%)*

- Media coverage: AT&T Labs-Research featured a story on our collaboration that led to that paper, Nov. 2010.

C28 A. Le, A. Markopoulou, M. Faloutsos, "PhishDef: URL Names Say It All," *in INFOCOM mini-conference*, pp:191–195, Shanghai, China, April 2011. *(acceptance rate 23.42%)*

C27 M.Kurant, A.Markopoulou, P.Thiran, "On the bias of Breadth First Search (BFS)," *in Proc. of ITC 22*, Amsterdam, The Netherlands, Sept.2010.

C26 A.Das, S. Vishwanath, S.Jafar, A.Markopoulou, "Network Coding for Multiple Unicasts: An Interference Alignment Approach," *in Proc. of IEEE ISIT 2010*, Austin, TX, June 2010.

* Nominated for Best Student Paper Award in ISIT 2010.

C25 A. Le, A. Markopoulou, "Locating Byzantine Attackers in Intra-Session Network Coding using SpaceMac," *in Proc. of NetCod 2010*, Toronto, Canada, June 2010. Longer version on *arXiv*.

C24 P.Sattari, M.Gjoka, A.Markopoulou, "A Network Coding Approach to IP Traceback," *in Proc. of NetCod 2010*, Toronto, Canada, June 2010.

C23 F. Soldo, A. Markopoulou, A. Lopez-Toledo, "A Simple Optimization Model for Wireless Opportunistic Routing with Intra-session Network Coding," *in Proc. of NetCod 2010*, Toronto, Canada, June 2010.

C22 H.Seferoglu, A.Markopoulou, "Network Coding-Aware Queue Management for Unicast Flows over Coded Wireless Networks," *in Proc. of NetCod 2010*, Toronto, Canada, June 2010.

C21 H.Seferoglu, A.Markopoulou, "Delay-Optimized Network Coding for Video Streaming over Wireless Networks", *in Proc. of IEEE ICC 2010*, South Africa, May 2010.

C20 F.Soldo, A.Le, A.Markopoulou, "Predictive Blacklisting as an Implicit Recommendation system," *in Proc. of IEEE INFOCOM 2010*, pp: 1640–1648, San Diego, April 2010. *(acceptance rate 17.5%)*

* Media coverage: MIT Technology Review, Slashdot, Dark Reading, ACM TechNews.

C19 M.Gjoka, M.Kurant, C.T. Butts, A.Markopoulou, "Walking in Facebook: a Case Study of Unbiased Sampling of Facebook," *in Proc. of IEEE INFOCOM 2010*, pp: 2498–2506, San Diego, April 2010. *(acceptance rate 17.5%)*

C18 P.Sattari, A.Markopoulou, C.Fragouli,"Multiple Source Multiple Destination Topology Inference using Network Coding," *in Proc. of NetCod 2009*, EPFL, Lausanne, June 2009.

C17 H.Seferoglu, A.Markopoulou, U.Kozat, "Network coding-aware rate control and scheduling in wireless networks," *in Proc. of ICME 2009*, Special Session on "Network Coding for Multimedia Streaming," pp: 1496–1499, New York, July 2009.

C16 H.Seferoglu, A.Markopoulou, "Distributed Rate Control for Video Streaming over Wireless Networks with Intersession Network Coding," *in Proc. of Packet Video 2009*, Seattle, May 2009.

C15 X. Yang, M. Gjoka, P. Chhabra, A. Markopoulou, P. Rodriguez, "Kangaroo: Video Seeking in P2P Systems," *in Proc. of USENIX IPTPS*, Boston, April 2009.

C14 F. Soldo, A. Markopoulou, K. Argyraki, "Optimal Filtering of Source Address Prefixes: Models and Algorithms," *in Proc. of IEEE INFOCOM 2009*, 2446–2454, Rio de Janeiro, Brazil, Apr. 2009. *(acceptance rate 19.7%)*

C13 M.Gjoka, M.Sirivianos, A.Markopoulou, X.Yang, "Poking Facebook: Characterization of OSN Applications," *in Proc. of ACM SIGCOMM Workshop on Online Social Networks (WOSN)*, Seattle, Aug. 2008.

C12 H.Seferoglu, A.Markopoulou, "Opportunistic Network Coding for Video Streaming over Wireless," *in Proc. of IEEE Packet Video*, Lausanne, Switzerland, Nov. 2007.

C11 M.Gjoka, C.Fragouli, P.Sattari, A.Markopoulou, "Loss Tomography in General Topologies with Network Coding," *in Proc. of IEEE GLOBECOM 2007*, pp: 381–386, Washington, DC, Nov. 2007.

C10 C. Fragouli, D. Katabi, S. Katti, A. Markopoulou, M. Medard, H. Rahul, "Wireless Network Coding: Opportunities & Challenges," *in Proc. of MILCOM*, Oct. 2007.

C9 K.El Defrawy, M.Gjoka, A.Markopoulou, "Bottorrent: Misusing BitTorrent to Launch DDoS Attacks," *in Proc. of USENIX SRUTI*, Santa Clara, June 2007.

∗ Media coverage: by the New Scientist and Slashdot.org.

C8 Y.Li, A.Markopoulou, J. Apostolopoulos, N.Bambos, "Packet Transmission and Content-Dependent Playout for Video Streaming over Wireless", *in Proc. IEEE MMSP'05 - special session on Content-Aware Video Coding and Communication*, Oct.30-Nov.2 2005, Shanghai, China.

C7 A. Markopoulou, Y. Li, C.Chan, and N. Bambos, "Power Management in Battery-Constrained Hand-held Devices," *in Proc. of IEEE 2nd Int. Conference on Broadband Networks - Wireless Symposium*, pp:441 - 450, Oct. 3-7, 2005, Boston, MA.

C6 Y. Li, A. Markopoulou, N. Bambos, and J. Apostolopoulos, "Joint Power/Playout Control Schemes for Media Streaming over Wireless Links," in Proc. of *IEEE* 14^{th} *Packet Video Workshop*, Irvine, Dec. 2004, CA, USA.

C5 A. Markopoulou, G. Iannaccone, S. Bhattacharyya, C.N. Chuah, and C. Diot, "Characterization of Failures in an IP Backbone Network," in Proc. of *IEEE INFOCOM 2004*, March 2004, Hong Kong. *(Acceptance rate 18.4%).*

C4 A. Markopoulou, E. Setton, M. Kalman, and J. Apostolopoulos, "WiSE Video: Improving rate-controlled video streaming over wireless links, using in-band wireless loss notification," *in Proc. of IEEE Int'l Conference on Multimedia and Expo (ICME'04)*, July 2004, Taipei, Taiwan. *(Acceptance rate 24.8%).*

C3 A. Markopoulou, F. Tobagi, and M. Karam, "Assessment of VoIP quality over Internet backbones," in Proc. of *IEEE INFOCOM 2002*, June 2002, New York, USA. *(Acceptance rate 20.5%).*

∗ *One of the 8 best papers in the conference*

C2 A. Markopoulou and B. Subbiah, "Dynamic traffic conditioning for a DiffServ domain using feedback and topology techniques," *in Proc. of IC 2000*, Arizona, USA, 2000.

C1 A. Markopoulou and F. Tobagi, "Performance analysis of Hierarchical Reliable Multicast," in the Proc. of *ACM 2nd Int'l Workshop on Network Group Communications (NGC 2000)*, Nov. 2000, Stanford, CA. *(Acceptance rate 24.5%)*

▶ **INVITED PAPERS (with proceedings)**

I12 W. Hartzog, Z. Shafiq, and A. Markopoulou, "The Hypocrisy of Data Governance," presented at the Symposium on "Governing Data", Yale Law School, March 2024; Journal paper in *Yale Journal of Law and Technology (YJoLT)* 393, Vol. 28, 2026.

I11 D. Choffnes, W. Hartzog, S. Jordan, A. Markopoulou, and Z. Shafiq, "A Scientific Approach to Tech Accountability," presented at the Symposium on "Beyond the FTC: the Future of Privacy Enforcement", Harvard Law School, Boston, March 2023; *journal paper invited to Harvard Journal of Law and Technology (JoLT), 2024.*

I10 B.Cici, L.Keller, A.Le, A.Markopoulou, C.Fragouli, H.Seferoglu, (in alphabetical order)"Cooperative smartphones with network coding," *in Allerton Conference*, Sept. 2011, Monticello, IL.

I9 A. Ramakrishnan, A. Das, H. Maleki, A. Markopoulou, S. Jafar, S. Vishwanath, "Network Coding for Three Unicast Sessions: Interference Alignment Approaches," *in Allerton Conference 2010*, Sept. 2010, Monticello, IL.

I8 F.Soldo, K. El Defrawy, A. Markopoulou, B.Krishnamurthy, K. van der Merwe, "Filtering algorithms for unwanted traffic," *in Proc. of ITA Workshop '08*, UCSD, Jan. 2008.

I7 K. El Defrawy, A. Markopoulou, K.Argyraki, "Optimal allocation of Filters against DDoS Attacks," *in Proc. of ITA Workshop '07*, UCSD, Jan. 2007.

I6 C.Fragouli, A.Markopoulou, R.Srivanasan, S.Diggavi, "Network Monitoring: It Depends on your Points of View," *in Proc. of ITA Workshop'07*, UCSD, Jan. 2007.

I5 C. Fragouli, A. Markopoulou, S.Diggavi, "Topology Inference using Network Coding", *in Proc. of the* 44^{th} *Allerton Conference on Communication, Control, and Computing*, Monticello, IL, Sept. 2006.

I4 C.Fragouli, A.Markopoulou, "A Network-Coding Approach to Overlay Network Monitoring", *in Proc. of the Allerton Conference 2005*, Sept. 2005.

I3 A. Abbas and A. Markopoulou, "A Bayesian - Maximum Entropy Approach to Subjective Voice Quality Testing," in Proc. of *AIP* 23^{rd} *International WorkShop on Maximum Entropy and Bayesian Inference*, Jackson Hole, WY, USA, Aug. 2003.

I2 F. Tobagi, A. Markopoulou, and M. Karam, "Is the Internet ready for VoIP?," in Proc. of *2002 Tyrrhenian International Workshop on Digital Communications (IWDC 2002)*, Capri, Italy, pp.49-57, Sept. 2002, Capri, Italy.

I1 F. Tobagi, W. Noureddine, B. Chen, A. Markopoulou, M. Karam, C. Fraleigh, J.M. Pulido and J. Kimura, "Service Differentiation in the Internet to support multimedia traffic," in Proc. of *2001 Tyrrhenian Int'l Workshop on Digital Communications (IWDC 2001)*, and printed by *Springer Verlag LNCS*, Vol. 2170, p.381, 2001.

▶ **TECHNICAL REPORTS** (only listing those without overlap with published papers)

TR11 Olivia Figueira, Pranathi Chamarthi, Tu Le, and Athina Markopoulou, "Actions Speak Louder Than Chats: Investigating AI Chatbot Age Gating," under review, `https://arxiv.org/abs/2602.10251` 2026.

TR10 Olivia Figueira, Pranathi Chamarthi, Tu Le, and Athina Markopoulou, "When Kids Mode Isn't For Kids: Investigating TikTok's "Under 13 Experience, " under review, `https://arxiv.org/abs/2507.00299`, 2026.

TR9 Hieu Le, Salma Elmalaki, Zubair Shafiq, Athina Markopoulou, "AutoLike: Auditing Social Media Recommendations through User Interactions," `https://arxiv.org/abs/2502.08933`, Feb. 2025.

- Media coverage: Featured in an episode of the Data Skeptic Podcast, `https://dataskeptic.com/blog/episodes/2026/autolike`, June 2026.

TR8 Evita Bakopoulou, Anastasia Shuba, Athina Markopoulou, "Exposures Exposed: A Measurement and User Study to Assess Mobile Data Privacy in Context," *arxiv.org/abs/2008.08973* , Aug.2020.

TR7 Evita Bakopoulou, Balint Tillman, Athina Markopoulou,"A Federated Learning Approach for Mobile Packet Classification", *in arxiv.org/abs/1907.13113*, July 2019.

TR6 Rahmadi Trimananda, Janus Varmarken, Athina Markopoulou, Brian Demsky, "Ping-Pong: Packet- Level Signatures for SmartHome Device events", *in arxiv.org/abs/1907.11797*, July 2019.

TR5 Anastasia Shuba, Evita Bakopoulou, Milad Asgari Mehrabadi, Hieu Le, David Choffnes, Athina Markopoulou, "AntShield: On-Device Detection of Personal Information Exposure," *in arxiv.org/abs/1803.01261*, March 2018.

TR4 A. Shuba, A. Le, M. Gjoka, E. Alimpertis, A. Markopoulou, "AntMonitor: A System for On-Device Mobile Network Monitoring and its Applications," in *arxiv.org/abs/1611.04268v2*, April 2017.

TR1 A. Markopoulou, D. Cheriton, "The Case for Redundant Arrays of Internet Links (RAIL)," Technical Report ArXiV:cs.NI/0701133, *arXiv.org*, Jan. 2007.

▶ **SHORT PAPERS** and **POSTERS**

S19 Tianyue Chu, Mengwei Yang, Nikolaos Laoutaris, Athina Markopoulou, "Information-Theoretical Bounds on Privacy Leakage in Pruned Federated Learning," poster and presentation, ISIT workshop on "Informational Theoretic methods for Trustworthy ML" (IT-TML), July 7th 2024, Athens, Greece

S18 Mengwei Yang, Ismat Jarin, Baturalp Buyukates, Salman Avestimehr, Athina Markopoulou, "Maverick-Aware Shapley Valuation for Client Selection in Federated Learning," poster in ISIT workshop on "Informational Theoretic methods for Trustworthy ML" (IT-TML), July 7th 2024, Athens, Greece. [arXiv:2405.12590]

S17 A. Markopoulou, "Technical perspective: Traffic classification in the era of deep learning", *in Communications of the ACM (CACM)*, Vol. 65, Issue 10, Oct. 2022, pp. 74, *https://doi.org/10.1145/3556640*.

S16 A. Markopoulou, R. Trimananda, H. Cui, "A CI-based Auditing Framework for Data Collection Practices," position paper, *4th Annual Symposium on Applications of Contextual Integrity (PrivaCI),* New York, Sept. 2022

S15 A. Shuba, E. Bakopoulou, A. Markopoulou, "Privacy Leak Classification from Mobile Devices," *in Proc. of SPAWC (19th IEEE Int'l Workshop in Signal Processing Advances in Wireless Communications)*, Kalamata, Greece, June 2018.

S14 A. Shuba, A. Markopoulou, "Demo: AntWall - A System for Mobile Adblocking and Privacy Exposure Prevention," MobiHoC Demo, UCLA, June 2018.

S13 B. Tillman, A. Markopoulou, "On the Number of Connected Components of Joint Degree Matrix Realizations," Network Science (NetSci) Workshop, Paris, France, June 2018.

S12 E. Alimpertis and A. Markopoulou, "A System for Crowdsourcing Passive Mobile Network Measurements", *NSDI Poster*, Boston, March 2017.

S11 L. Baldesi, C. Butts, A. Markopoulou, Graph Generation Targeting Modularity, *ACM CoNEXT 2016 Student Workshop Poster*, Irvine, CA, Dec. 2016.

S10 B. Cici, A. Markopoulou, N. Laoutaris "Short Paper: Designing an On-Line Ride-Sharing System," *in Proc. of 23rd ACM SIGSPATIAL*, Seattle, Washington, USA, Nov. 2015.

S9 A. Shuba, A. Le, M. Gjoka, J. Varmarken, S. Langhoff, A. Markopoulou, "Demo: AntMonitor - Network Traffic Monitoring and Real-Time Prevention of Privacy Leaks in Mobile Devices," *in ACM MobiCom S3 Workshop*, Paris, France, July 2015. Best Demo Award Winner.

S8 A. Shuba, A. Le, M. Gjoka, J. Varmarken, S. Langhoff, A. Markopoulou, "AntMonitor: A System for Mobile Traffic Monitoring and Real-Time Prevention of Privacy Leaks,' *in ACM Mobicom Demos*, Paris, France, Sep 7-10, 2015.

S7 M.Gjoka, B.Tillman, R.Pagh, A.Markopoulou, "Construction of 2K Graphs", *Poster in NetSci 2014*, Berkeley, June 2014.

S6 L. Keller, A, Le, B.Cici, H.Seferoglu, C. Fragouli, A. Markopoulou, "MicroCast: Video Streaming on Smartphones," demo/poster presented in:

(a) *ITA Workshop*, Feb. 2012, San Diego, CA

(b) ACM/SIGMOBILE HotMobile 2012, Feb. 2012, San Diego, CA.

S5 P. Sattari, A. Markopoulou, "Algebraic Traceback Meets Network Coding," *in Proc. of NetCod 2011 (Poster Session)*, Beijing, China, July 2011.

S4 B. Cici, F. Malandrino, M. Gjoka, M. Kurant, A. Markopoulou, "Online Social Networks meet Smartphones," *poster at the Calit2 anniversary*, UC Irvine, Fall 2010.

S3 A.Markopoulou, H.Seferoglu, "Network Coding Meets Multimedia: Opportunities and Challenges," *invited letter, IEEE MMTC E-Letter*, Vol.4, No.1, pp.12-15, Feb.2009.

S2 C.Fragouli, A. Markopoulou, "Network Coding Techniques for Network Monitoring: A Brief Introduction", *in IEEE Int'l Zurich Seminar (IZS) on Communications*, pp.82-83, ETH, Zurich, Switzerland, Feb. 2006.

S1 A. Markopoulou, N.Bambos "Optimizing Timeout-Based Sleep Algorithms," *poster appeared in the WIP session of IEEE/ACM IPSN 2005.*

▶ **PATENTS**

P3 H.Seferoglu, A.Markopoulou, K.K. Ramakrishnan, "Methods and Apparatus to utilize network coding in a wireless network", US 20130051377 A1, granted in Feb. 2013.

P2 A.Markopoulou, F.Soldo, A.Le, Predictive Blacklisting using Implicit Recommendation," US 8,572,746 B2, granted on Oct.29, 2013.

P1 Jacobus Van der Merwe, Balachander Krishnamurthy, Karim M. El Defrawy, Athina Markopoulou, Fabio Soldo, System and Method for Filtering Unwanted Internet Protocol Traffic Based on Blacklists, US Pat. No. 8,539,576. Filed in Nov. 2008 and Issued 9/17/2013.

INVITED TALKS and PANELS

T32 Talks related to Children's Online Privacy and Safety:

– Invited speaker at the Knight-Georgetown Institute (KGI) "Age Assurance Forum," University of Chicago, July 30th, 2026.

T31 Talks and Panels related to AI:

i: Discussion Moderator for Panel on "Measurement and Evaluation Frameworks and Infrastructure", Workshop on Securing AI Agents organized by the **NASEM** Cyber Resilience Forum, Washington, DC, April 2026.

h: Panelist at OCTANE's TIF panel on "AI, Policy, and Ethics," Irvine, CA, April 2026.

g: Panelist at UC Noyce Initiative Research Symposium on "Cybersecurity and AI", UC Davis, Feb. 2026.

f: Panelist at UCR Logos Opening Day, on "Online Speech: Freedom, Hate, and censorship in Modern Era", UC Riverside, Feb. 2026.

e: Invited Presentation at the UCI CEO RoundTable, Beall Applied Innovation, Irvine, CA, Nov. 2025.

d: Invited to Trust In Digital Life (TDL) Online Panel and Webinar on "AI Data Governance", October 2025.

c: Panelist at WECEDHA meeting, on "AI in Engineering Education", UCLA, Sept. 2025

b: Invited talk at the UCI-TAU Engineering+Society Meeting, Irvine, CA, Sept. 2025.

a: Panelist at OCTANE's TIF event on "AI and Cyber," May 2025, `https://www.octane-oc.org/event/TIF/agenda`.

T30 Invited participant to Dagstuhl Seminar 25042 on "Online Privacy: Transparency, Advertising, and Dark Patterns", `https://www.dagstuhl.de/seminars/seminar-calendar/seminar-details/25042`, Jan 19-22 2025.

T29 Talks related to Privacy and ProperData:

c: NSF SaTC PI meeting, presentation ("ProperData Overview") and panel on SaTC Frontier Projects, CMU, Aug. 2025.

b: Invited Presentation to Inter-Agency Group (**PETs subIPC**), "ProperData Overview: A Tech-Policy Approach to Data Transparency", April 2024.

a: **Keynote** at the 2nd Annual Symposium of the USC-Amazon Center, April 2023.

T28 "Location Leakage in Federated Signal Maps":

c: WiOpt WMLC Workshop, Sept 19, 2022.

b: ITA Workshop, San Diego, CA, May 2022.

a: Google's Federated Learning Workshop, Nov. 2021.

T28 "Auditing Network Traffic for Data Collection Practices", **Keynote Speaker**, in WiOpt, Oct. 2021.

T26 "Federated Packet Classification", ITA Workshop, San Diego, CA, Feb. 2020.

T25 Panelist on "IoT Privacy Regulation" Panel, IoT Security & Privacy Conference and Research Symposium, CPRI, UCI, May 2019.

T24 "Mobile Data Privacy":

c: NSF SpecEES PI Meeting, Irvine, CA, Jan. 2020.

b: Google Networking Faculty Summit, Sunnyvale, March 2019; and at Google Cellular Infrastructure Group, April 2019.

a: Intelligence 2025, Tel Aviv University, Tel Aviv, Israel, Nov. 2018

T23 "Construction Algorithms for Directed 2K-Graphs", ITA, UCSD, Feb. 2017.

T22 On the `antmonitor.calit2.uci.edu` project:

b: "AntMonitor: Mobile Network Monitoring for Privacy", DTL Conference and AT&T Research Seminar, New York, NY, Nov. 2016.

a: "AntMonitor: A System for Mobile Network Monitoring, Learning and Control", ITA Workshop, Feb. 2016.

T21 "Measurements and Analysis of Mobile and Social Networks":

e: Invited Seminar at Verizon Digital Media Services, Los Angeles, CA, Aug. 2018.

d: Invited Seminar at Symantec Research, Los Angeles, CA, March 2018

c: Invited Seminar at ECE dept, USC, April 2017

b: CS Colloquium, UC Riverside, Nov. 2015.

a: Henry Samueli School of Engineering Distinguished Speaker Series (for mid-career research award), May 2015.

T20 "Construction of Graphs with a target Joint Degree Distribution, and beyond":'

c: Data Science Workshop, UCI, March 2015.

b: ACM MobiHoc TPC Workshop, Columbia University, Feb. 2015.

a: ITA invited talk, UCSD, Feb. 2014.

T19 "Cooperative Schemes for Content Delivery to Mobile Devices":

c: Joint HHSoE and DBH Alumni event at Sony Pictures, April 2014.

b: UCSD Communications and Coding Seminar, March 2014.

a: EECS Seminar, University of Michigan, Ann Arbor, Feb. 2014.

T18 "Microcast: Network Coding on Android Phones", ITA, UCSD 2012.

T17 "Sampling Online Social Networks", presented at:

g: Technicolor Research, Palo Alto, CA, Apr. 2012.

f: Computational Social Sciences Initiative (CSSI) Seminar Series, UMASS Amherst, Massachusetts, Feb. 16, 2012.

e: UCSD, Oct. 14, 2011.

d: Advanced Networks Colloqium, University of Maryland, College Park, Sept. 23, 2011.

c: Keynote at the *Network Measurement and Mapping Conference (NMMC)*, May 16-17, 2011, in Madison, Wisconsin.

b: EE Colloqium at UCLA, April 2011.

a: IMBS Workshop on "Behavior in and on Networks," UC Irvine, Jan. 2011.

T16 "I2NC: Inter- and Intra- Session Network Coding," Invited talk at ITA, UC San Diego, Feb. 2011.

T15 "Predictive Blacklisting as a Recommendation System", presented at:

a: *Netseminar*, Stanford University, May 2010.

b: *Systems Seminar*, EECS, University of Michigan, Ann Arbor, April 2010.

c: *ITA 2010*, UC San Diego, Feb. 2010.

T14 "Highly Predictive Blacklisting", *invited talk in SuRI (Summer Research Institute)*, Special Session: "Rediscovering Favorites", EPFL, Lausanne, June 2009.

T13 "Filtering Malicious Sources: Models and Algorithms," *invited talk at the IPAM Workshop II: Applications of Internet MRA to Cyber-Security*, UCLA, Oct.2008.

T12 "Dealing with Malicious Traffic", panel organizer and speaker *in IEEE CCW'08 Workshop*, Colorado (Oct. 2008).

T11 "(Some) Novel Applications of Network Coding," presented at:

- *DocomoLabs, Palo Alto, CA*, March 2008.

- *GeorgiaTech, Network Seminar*, Nov. 2007.

T10 "Optimal Filter Allocation against DDoS Attacks", presented at:

- *CAIDA, San Diego Supercomputer Center*, Feb. 2007
- *AT&T Research*, New Jersey, Feb. 2007

T9 "Improving Network Inference using Network Coding Techniques", presented at:

- *University of Southern California*, March 2007.
- *CS Colloquium, UC Riverside*, Nov. 2006

T8 "Control Mechanisms for Multimedia Streaming over Wireless", presented at:

- *Networked Systems Seminar, UC Irvine*, May 2006
- *Summer Research Institute at EPFL*, Lausanne, Switzerland, July 2006.
- *IDIAP Research Institute*, Martigny, Switzerland, July 2006.
- *EECS Dept, UC Irvine*, CA, March 2005
- *Google Inc.*, Mountain View, CA, June 2005

T7 "Rate-control for real-time multimedia applications", Guest lecture in EEC273 graduate class on Computer Networks, UC Davis, CA Jan. 2005.

T6 "Improving the Dependability of the Internet," Stanford Networking Seminar (NetSeminar), *Stanford University*, Jan. 2005

T5 "Improving Video Streaming over Wireless Links," presented at:

- *Microsoft Research*, Cambridge, UK, Dec. 2004
- *National Technical University of Athens*, Greece, Jan. 2005.

T4 "The Good, the Bad and the WISE: Three Problems in Designing a Ubiquitous Packet Network," *Sprint ATL*, Burlingame, CA, USA, March 2004

T3 "Failures and Availability in IP Backbone Networks," presented at:

- *AT&T Labs* at Florham Park, NJ, USA, June 2004
- *National Technical University of Athens*, Athens, Greece, Dec. 2003
- *Athens University of Economics and Business*, Athens, Greece, Dec. 2003
- *EECS Dept. Seminar, UC Berkeley*, Berkeley, CA, USA, Aug. 2003
- *Sprint Retreat*, Miami Beach, FL, USA, May 2003

T2 "Is the Internet ready for VoIP?," presented, from Aug. to Nov. 2002:

- *AT&T Labs*, Menlo Park, CA & at Florham Park, NJ, USA
- *Lucent-Bell Labs*, Holmdel & Murray Hill, NJ, USA
- *Nokia Research Center*, Mountain View, CA, USA
- *CAIDA*, San Diego, CA, USA

T1 "Differentiated Services for Voice and Video", *University of Crete, Computer Science Dept.*, Heraklion, Greece, July 2000