

Ashia Wilson

Electrical Engineering & Computer Science Department
Massachusetts Institute of Technology
www.ashiawilson.com

Employment

- 2021– **Assistant Professor**, Massachusetts Institute of Technology
- 2018–2020 **Postdoctoral Researcher**, Microsoft Research, New England
- 2017 **Summer Intern**, Google AI
- 2011–2012 **Research Assistant**, Massachusetts Institute of Technology & Harvard University

Education

- 2018 **PhD, Statistics**, University of California, Berkeley
Advisors: Michael I. Jordan and Benjamin Recht
Thesis: Lyapunov Arguments in Optimization
- 2007–2011 **BA, Applied Mathematics & Philosophy**, with honors, Harvard University

Awards

- 2017 NeurIPS spotlight paper, The Marginal Value of Adaptive Methods in Machine Learning
- 2017 Rising stars in EECS, Carnegie Mellon University
- 2014–2017 Graduate Research Fellowship, National Science Foundation
- 2012–2014 Chancellors Fellowship, University of California, Berkeley
- 2010 Fung Fellowship, Harvard University

Selected Publications

Wilson, A. C., Recht, B. and Jordan, M. I., “A Lyapunov analysis of momentum methods in optimization,” in the Journal of Machine Learning Research, 2021.

Wilson, A. C., Kasy, M, and Mackey, L., “Approximate cross-validation: guarantees for model assessment and model selection,” in the International Conference on Artificial Intelligence and Statistics, 2020.

Liu, L. T., Wilson, A. C., Haghtalab, N., Kalai, A. T., Borgs, C., and Chayes, J. “The disparate equilibria of algorithmic decision making when individuals invest rationally,” in the ACM conference on Fairness, Accountability and Transparency, 2020.

Wilson, A. C., Mackey, L., and Wibisono, A. “Accelerating rescaled gradient descent: fast minimization of smooth functions,” in the Advances in Neural Information Processing Systems, 2019

Broderick, T., Wilson, A. C., and Jordan, M. I. “Posteriors, conjugacy, and exponential families for completely random measures,” Bernoulli, 2018.

Wilson, A. C., Roelofs, R., Stern, M., Srebro, N. and Recht, B. “The marginal value of adaptive methods in machine learning,” in the Advances in Neural Information Processing Systems, 2017.

Tu S., Venkataraman, S., Wilson, A. C., Jordan, M.I. and Recht, B. “Breaking locality accelerates block Gauss-Seidel,” in the International Conference of Machine Learning, 2017.

Wibisono, A., Wilson, A. C., and Jordan, M. I. “A variational perspective on accelerated methods of optimization,” in the Proceedings of the National Academy of Science, 2016.

Broderick, T., Boyd, N., Wibisono, A., Wilson, A. C., and Jordan, M. I. “Streaming variational Bayes,” in the Advances in Neural Information Processing Systems, 2013.

Invited Talks

- 2021 Simons Workshop on Geometric Methods in Optimization and Sampling, Optimization Bootcamp Tutorial.
- 2020 Johns Hopkins University, Mathematical Institute for Data Science Seminar
- 2020 Rice University, Computational and Applied Mathematics Seminar
- 2020 University of Maryland, Department of Computer Science Seminar Series
- 2020 Cornell, Department of Operations Research and Information Engineering Seminar Series
- 2020 Yale University, Department of Computer Science Seminar Series
- 2020 Brown University, Department of Computer Science Seminar Series
- 2020 New York University, Department of Computer Science Seminar Series
- 2020 University of Chicago, Department of Computer Science Seminar Series
- 2020 Carnegie Mellon University, Department of Computer Science Seminar Series
- 2020 Georgia Tech, Department of Computer Science Seminar Series
- 2020 Stanford, Department of Computer Science Seminar Series
- 2020 Stanford, Department of Management Science & Engineering Seminar Series
- 2019 University of Massachusetts Amherst, Department of Computer Science Seminar Series
- 2019 MIT, Operations Research Seminar Series
- 2019 ETH, Zurich Statistics Seminar Series
- 2018 MIT, Lab for Information and Decision Systems Seminar Series
- 2017 Toyota Technical Institute at Chicago, Young Researcher Seminar Series
- 2017 Caltech Computing and Mathematical Sciences Colloquium

2017 Cornell Young Research Workshop

Workshop and Conference Seminars

- 2020 Information Theory and Applications Workshop
- 2019 Optimization and Statistical Learning Workshop, Les Houches
- 2019 IEEE Conference on Decision and Control
- 2019 SIAM Conference on Optimization
- 2017 Information Theory and Applications Workshop

Service and Activities

- 2022 **Senior Program Committee**, Conference on Learning Theory
- 2022 **Program Committee**, Foundations on Responsible Computing
- 2021 **Organizer**, Simons Workshop on Geometric Methods in Optimization and Sampling
- 2021 **Area Chair**, Neural Information Processing Systems
- 2021 **Area Chair**, ACM Conference on Fairness, Accountability and Transparency
- 2021 **Invited Speaker**, Black in AI Research Speaker Series
- 2021 **Instructor**, Harvard Summer School: New Horizons in Theoretical Computer Science
- 2021 **Organizer**, Rising Stars in Computer Science at MIT
- 2021 **Organizer**, AMS Session on Social Change Through Mathematics
- 2020 **Organizer**, NeurIPS Workshop on Consequential Decisions in Dynamic Environments
- 2016-2017 **Co-president**, Berkeley Statistics Graduate Student Association

Reviewing

Neural Information Processing Systems, ACM Conference on Fairness, Accountability and Transparency, International Conference on Machine Learning, Journal of Machine Learning Research