ACM Conference on Fairness, Accountability, and Transparency (FAT*)

Atlanta, Georgia Jan 29 – 31, 2019



FAT* 2019
Atlanta, GA

January 29-31,2019

Welcome from General Chairs

Welcome to ACM FAT* 2019 in Atlanta! While FAT* is only in its second year, it has quickly gained attention and regard as the natural home for the highest quality research on fairness, accountability, and transparency. We are particularly delighted to host this event in Atlanta, a city with a rich history of civil rights progress and social justice reform, a technological powerhouse, and the home of numerous top-tier colleges and universities.

The Program Chairs, Alexandra Chouldechova and Fernando Diaz, have an excellent technical program lined up for you. We thank them and their extensive Program Committee for doing the heavy lifting on this front. We hope that you enjoy the talks and have many stimulating discussions during your three days at the conference.

Given the substance of our work and the commitments of our community, we've worked hard to develop new ways to make this conference inclusive. Thanks to the generosity of our sponsors and many of our attendees, we've been able to offer scholarships to those with limited means, provide subsidized childcare, and livestream the conference for those unable to travel. Still, there is so much more that we can and must do to increase the inclusiveness of this conference. We are indebted to the many members of our community who have pushed us to do more. We also hope that all of you will take the importance of inclusiveness seriously and find innovative ways to embrace people you don't know and expand the circle of FAT* as wide as you can within your own world.

Many people helped make this conference a success. We would like to thank the FAT* Steering Committee for its indispensable guidance in making critical decisions. Their collective knowledge provides an endless source of wisdom on every aspect of conference organizing. Our many thanks to our numerous external supporters. Their commitments to this event and the FAT* conference series are appreciated as they help keep our student registration fees low and allow many students to attend the conference. The ACM was very helpful in every part of the planning process. Last but far from least, we would like to give our infinite gratitude to Melanie Penagos, for guiding us all to do our jobs, communicate with each other effectively, and ensure the entire conference organizational process went smoothly.

Thank you all for attending ACM FAT* 2019. Enjoy the conference, the hotel, the food, and the (hopefully relatively) warm weather in the fantastic city of Atlanta!

danah boyd and Jamie Morgenstern, General co-Chairs





Technical Program Tuesday, January 29

9:00-12:00PM	Doctoral Consortium
	Room: Georgia 6
12:00-1:00PM	Lunch (Doctoral Consortium participants only)
1:00-2:30PM	Tutorials 1
	Room: Georgia Hall 2, 3 Session Chair: Emily Denton Translation Tutorial: A History of Quantitative Fairness in Testing Ben Hutchinson, Margaret Mitchell, Shira Mitchell
	Room: Georgia Hall 4, 5
	Session Chair: Joshua Kroll Implications Tutorial: Building Community Governance of Risk
	Assessment Hannah Sassaman, Reuben Jones, David Robinson
	Room: Georgia Hall 7, 8 Session Chair: Ben Fish Hands-on Tutorial: pip install fairness: a fairness-aware classification toolkit
	Sorelle Friedler, Carlos Scheidegger, Suresh Venkatasubramanian
	Room: Georgia Hall 9 Session Chair: Michael Ekstrand Translation Tutorial: Values, Reflection and Engagement in Automated Decision-Making Roel Dobbe, Morgan Ames
2:30-3:00PM	Coffee Break
10:50–11:20AM	Tutorials 2
	Room: Georgia Hall 2, 3 Session Chair: Bo Cowgill (3:00PM-3:45PM) Invited Tutorial: A New Era of Hate Keegan Hankes, Swathi Shanmugasundaram Southern Poverty Law Center (SPLC)



Room: Georgia Hall 2, 3

Session Chair: Bo Cowgill

(3:45PM-4:30PM)

Implications Tutorial: Parole denied: One Man's Fight Against a COMPAS

Risk Assessment

Cynthia Conti-Cook, Glenn Rodriguez

Room: Georgia Hall 4, 5

Session Chair: Luke Stark

(3:00PM-3:45PM)

Translation Tutorial: Toward a Theory of Race for Fairness in Machine

Learning Emanuel Moss

Room: Georgia Hall 4, 5

(3:45PM-4:30PM)

Session Chair: Luke Stark

Translation Tutorial: Engineering for Fairness: How a Firm Conceptual Distinction between Unfairness and Bias Makes it Easier to Address

Un/Fairness

Jacob Metcalf

Room: Georgia Hall 7, 8

Session Chair: Aylin Caliskan

Hands-on Tutorial: Al Fairness 360 (part 1)

Rachel K. E. Bellamy, Kuntal Dey, Michael Hind, Samuel Hoffman, Stephanie Houde, Kalapriya Kannan, Pranay Lohia, Jacquelyn Martino, Sameep Mehta, Aleksandra Mojsilović, Seema Nagar, Karthikeyan Natesan Ramamurthy, John T. Richards, Diptikalyan Saha, Prasanna Sattigeri, Moninder Singh, Kush Varshney, Dakuo Wang, Yunfeng Zhang

Room: Georgia Hall 9

Session Chair: Tolga Bolukbasi

Hands-on Tutorial: Measuring Unintended Bias in Text Classification

Models with Real Data

Daniel Borkan, Lucas Dixon, Jeffrey Sorensen, Nithum Thain, Lucy

Vasserman

4:30-5:00PM Coffee Break

5:00-6:30PM Tutorials 3

Room: Georgia Hall 2, 3 Session Chair: Swati Gupta

Translation Tutorial: Challenges of incorporating algorithmic fairness into

industry practice

Henriette Cramer, Kenneth Holstein, Jennifer Wortman Vaughan, Hal Daumé III, Miroslav Dudík, Hanna Wallach, Sravana Reddy, Jean Garcia-

Gathright



Room: Georgia Hall 4, 5 Session Chair: Joshua Kroll

Implications Tutorial: Reasoning About (Subtle) Biases in Data to Improve

the Reliability of Decision Support Tools Suchi Saria, Adarsh Subbaswamy

Room: Georgia Hall 7, 8 Session Chair: Aylin Caliskan

Hands-on Tutorial: AI Fairness 360(part 2)

Rachel K. E. Bellamy, Kuntal Dey, Michael Hind, Samuel Hoffman, Stephanie Houde, Kalapriya Kannan, Pranay Lohia, Jacquelyn Martino, Sameep Mehta, Aleksandra Mojsilović, Seema Nagar, Karthikeyan Natesan Ramamurthy, John T. Richards, Diptikalyan Saha, Prasanna Sattigeri, Moninder Singh, Kush Varshney, Dakuo Wang, Yunfeng Zhang

Room: Georgia Hall 9 Session Chair: Bo Cowgill (5:00PM-5:45PM)

Translation Tutorial: What technologists need to know about Al for

international development Craig Jolley, Aubra Anthony

Wednesday, January 30

Unless otherwise noted, all General Session events will take place in the Capitol Ballroom.

8:00-8:45AM	a In It .
0.00 0.10,	Continental Breakfast
	Room: Capitol Prefunction
3:45–9:00AM	Opening Remarks
9:00–10:00AM	Keynote 1: Jon Kleinberg (Cornell University)
	Presentation: Fairness, Rankings, and Behavioral Biases Discussant: Jennifer Wortman Vaughan
10:00-10:50AM	Session 1: Framing and Abstraction
	Session Chair: Hanna Wallach
	Problem Formulation and Fairness
	Samir Passi, Solon Barocas
	50 Years of Test (Un)fairness: Lessons for Machine Learning
	Ben Hutchinson, Margaret Mitchell
	Fairness and Abstraction in Sociotechnical Systems
	Andrew D. Selbst, danah boyd, Sorelle A. Friedler, Suresh
	Venkatasubramanian, Janet Vertesi



10:50-11:20AM	Break
11:20-12:10PM	Session 2: Systems and Measurement
	Session Chair: Suresh Venkatasubramanian
	Who's the Guinea Pig? Investigating Online A/B/n Tests in-the-Wild Shan Jiang, John Martin, Christo Wilson
	Beyond Open vs. Closed: Balancing Individual Privacy and Public Accountability in Data Sharing Meg Young, Luke Rodriguez, Emily Keller, Feiyang Sun, Boyang Sa, Jan Whittington, Bill Howe
	Fairness-Aware Programming Aws Albarghouthi, Samuel Vinitsky
	Model Cards for Reporting Model Performance Margaret Mitchell, Simone Wu, Andrew Zaldivar, Parker Barnes, Ben Hutchinson, Elena Spitzer, Lucy Vasserman, Inioluwa Deborah Raji, Timnit Gebru
12:10-1:10PM	Lunch (Garden Courtyard)
1:10-2:00PM	Session 3: Profiling and Representation
	Session Chair: Carlos Castillo
	Bias in Bios: A Case Study of Semantic Representation Bias in a High-Stakes Setting Maria De-Arteaga, Alexey Romanov, Hanna Wallach, Jennifer Chayes, Christian Borgs, Alexandra Chouldechova, Sahin Geyik, Krishnaram Kenthapadi, Adam Tauman Kalai
	Equality of Voice: Towards Fair Representation in Crowdsourced Top-K
	Recommendations Abhijnan Chakraborty, Gourab K Patro, Niloy Ganguly, Krishna P. Gummadi, Patrick Loiseau
	The Profiling Potential of Computer Vision and the Challenge of Computational Empiricism Jake Goldenfein
	An Empirical Study of Rich Subgroup Fairness for Machine Learning Michael J. Kearns, Seth V. Neel, Aaron L. Roth, Zhiwei Steven Wu
2:00-2:50PM	Session 4: Fairness methods



	Fairness through Causal Awareness: Learning Causal Latent-Variable Models for Biased Data David Madras, Elliot Creager, Toni Pitassi, Richard Zemel
	From Soft Classifiers to Hard Decisions: How fair can we be? Ran Canetti, Aloni Cohen, Nishanth Dikkala, Govind Ramnarayan, Sarah Scheffler, Adam Smith
	Deep Weighted Averaging Classifiers Dallas Card, Michael Zhang, Noah A. Smith
2:50-3:20PM	Break
3:20-4:10PM	Session 5: Content Distribution
	Session Chair: Robin Burke
	On Microtargeting Socially Divisive Ads: A Case Study of Russia-Linked Ad Campaigns on Facebook Filipe Ribeiro, Koustuv Saha, Mahmoudreza Babaei, Lucas Henrique, Johnnatan Messias, Fabricio Benevenuto, Oana Goga, Krishna P. Gummadi, Elissa M. Redmiles
	Analyzing Biases in Perception of Truth in News Stories and their Implications for Fact Checking Mahmoudreza Babaei, Abhijnan Chakraborty, Juhi Kulshrestha, Elissa M. Redmiles, Meeyoung Cha, Krishna P. Gummadi
Best Technical Paper	Controlling Polarization in Personalization: An Algorithmic Framework L. Elisa Celis, Sayash Kapoor, Farnood Salehi, Nisheeth Vishnoi
	SIREN: A Simulation Framework for Understanding the Effects of Recommender Systems in Online News Environments Dimitrios Bountouridis, Jaron Harambam, Mykola Makhortykh, Monica Marrero, Nava Tintarev, Claudia Hauff
4:10-5:00PM	Session 6: Law and Policy
	Session Chair: Andrew Selbst
	Robot Eyes Wide Shut: Understanding Dishonest Anthropomorphism Brenda Leong, Evan Selinger
	Explaining Explanations in Al Brent Mittelstadt, Chris Russell, Sandra Wachter
	Racial categories in machine learning Sebastian Benthall, Bruce D. Haynes

 ²⁰¹⁹ ACM FAT* Best Paper Awardee

	Measuring the Biases that Matter: The Ethical and Causal Foundations for
	Measures of Fairness in Algorithms
	Bruce Glymour, Jonathan Herington
5:30-7:00PM	Reception (Garden Courtyard)

Thursday, January 31

Unless otherwise noted, all General Session events will take place in the Capitol Ballroom.

8:00-8:45AM	Continental Breakfast
	Room: Capitol Prefunction
8:45–9:00AM	Opening Remarks
9:00-10:00AM	Keynote 2: Deirdre Mulligan (University of California, Berkeley)
	Presentation: Beyond algorithmic scapegoating: fostering cultures of algorithmic responsibility through administrative law and design Discussant: Lilian Edwards
10:00-10:50AM	Session 7: Explainability
	Session Chair: Giles Hooker
	Actionable Recourse in Linear Classification Berk Ustun, Alexander Spangher, Yang Liu
	Model Reconstruction from Model Explanations Smitha Milli, Ludwig Schmidt, Anca D. Dragan, Moritz Hardt
	Efficient Search for Diverse Coherent Explanations Chris Russell
	On Human Predictions with Explanations and Predictions of Machine Learning Models: A Case Study on Deception Detection Vivian Lai, Chenhao Tan
10:50–11:20AM	Break
11:20–12:10PM	Session 8: Economic Models I
	Session Chair: Nathan Srebro
	A Moral Framework for Understanding Fair ML through Economic Models of Equality of Opportunity Hoda Heidari, Michele Loi, Krishna Gummadi, Andreas Krause
	Access to Population-Level Signaling as a Source of Inequality Nicole Immorlica, Katrina Ligett, Juba Ziani



	Fair Allocation through Competitive Equilibrium from Generic Incomes Moshe Babaioff, Noam Nisan, Inbal Talgam-Cohen Fair Algorithms for Learning in Allocation Problems Hadi Elzayn, Shahin Jabbari, Christopher Jung, Michael Kearns, Seth Neel, Aaron Roth, Zachary Schutzman
12:10–1:10PM	Lunch (Garden Courtyard)
1:10-2:00PM	Town Hall
2:00-2:50PM	Session 9: Learning Algorithms Session Chair: Nicole Immorlica Fairness under unawareness: assessing disparity when protected class is unobserved Jiahao Chen, Nathan Kallus, Xiaojie Mao, Geoffry Svacha, Madeleine Udell Classification with Fairness Constraints: A Meta-Algorithm with Provable Guarantees L. Elisa Celis, Lingxiao Huang, Vijay Keswani, Nisheeth K. Vishnoi A comparative study of fairness-enhancing interventions in machine learning Sorelle A. Friedler, Carlos Scheidegger, Suresh Venkatasubramanian, Sonam Choudhary, Evan P. Hamilton, Derek Roth
2:50-3:20PM	Break
3:20-4:10PM	Session 10: Empirical Studies Session Chair: Karen Levy
Best Technical + Interdisciplinary Paper	Disparate Interactions: An Algorithm-in-the-Loop Analysis of Fairness in Risk Assessments Ben Green, Yiling Chen
Best Non-Archival Submission	Dissecting Racial Bias in an Algorithm that Guides Health Decisions for 70 million people Ziad Obermeyer, Sendhil Mullainathan
	A Taxonomy of Ethical Tensions in Inferring Mental Health States from Social Media Stevie Chancellor, Michael Birnbaum, Eric Caine, Vincent Silenzio, Munmun De Choudhury
	Clear Sanctions, Vague Rewards: How China's Social Credit System Defines "Good" and "Bad" Behavior Severin Engelmann, Mo Chen, Felix Fischer, Ching-yu Kao, Jens Grossklags



4:10-5:00PM	Session 11: Economic Models II
	Session Chair: Inbal Talgam-Cohen The Disparate Effects of Strategic Manipulation Lily Hu, Nicole Immorlica, Jennifer Wortman Vaughan
	The Social Cost of Strategic Classification Smitha Milli, John Miller, Anca Dragan, Moritz Hardt
	From Fair Decision Making To Social Equality Hussein Mouzannar, Mesrob I. Ohannessian, Nathan Srebro
	Downstream Effects of Affirmative Action Sampath Kannan, Aaron Roth, Juba Ziani
5:00-5:15PM	Closing Remarks

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Website: fatconference.org

Child care program: Conference room 121 (Level 1)

Prayer room: Georgia 14 (Level 1) Networking room: Georgia 2 - 6 (Level 1) Nursing room: Hospitality Suite (Level 2)

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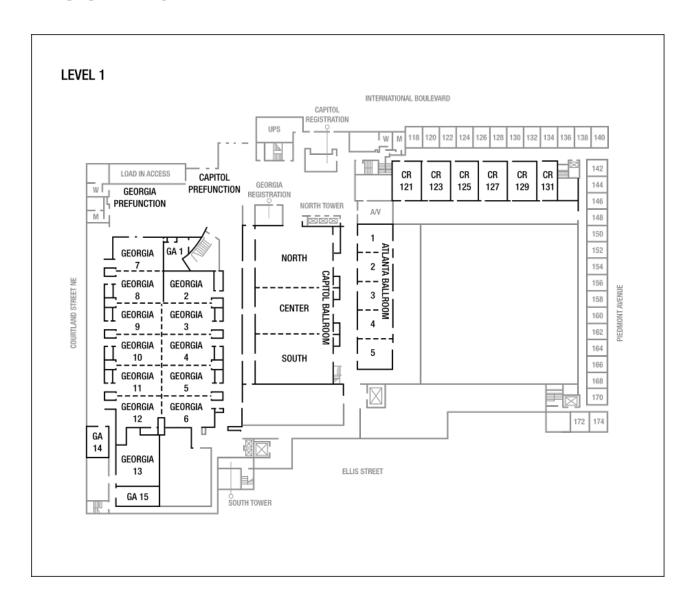


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Floor Plan





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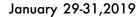














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