



ISAT/DARPA What If: Machine Learning for Causal Inference Workshop

Harvard Center for Government and International Studies
Knafel 1737 Cambridge Street Cambridge, MA 02138

<http://cgis.fas.harvard.edu/icb/icb.do>

<http://isites.harvard.edu/fs/docs/icb.topic1237072.files/Harvard%20CGIS%20map%20and%20locations.pdf>

Thursday, February 11, 2016

1:00 - 1:20	Kickoff by Workshop Co-Chairs - Cynthia Rudin (MIT) - Dustin Tingley (Harvard University)	CGIS South - S030 - Lee Gathering Room http://imsroombook.fas.harvard.edu/room.php?rm=rm0309
1:20-2:40	Opinion and Research Talks (10 mins + 5 mins Q&A) <i>Opinion Talks</i> - Hanna Wallach – Computational Social Science - Tyler VanderWeele – Effect Heterogeneity, Personalized Medicine, and Machine Learning: Choosing the Right Question <i>Research Talks</i> - Brandon Stewart - Matching Methods for High-Dimensional Data with Applications to Text - Alex Volfovsky – Causal Inference with Treatment Entanglement - Marc Ratkovic and Dustin Tingley - Sparse Estimation and Uncertainty with Application to Subgroup Analysis	CGIS South - S030 - Lee Gathering Room
2:40 - 3:30	Research Reflection Panel: “Is Machine Learning Useful for Causal Inference?”(up to 10 mins each Panelist + 5 mins discussion) - David Jensen - Susan Athey - Cynthia Rudin	CGIS South - S030 - Lee Gathering Room
3:30 - 4:00	Break and move to new room and the café area outside of CGIS Knafel (North) K354	CGIS Knafel (North) K354 http://imsroombook.fas.harvard.edu/room.php?rm=rm0302
4:00–5:00	Opinion Talks (10 mins + 5 mins Q&A) - Michael Littman – The Importance of Causal Models in Reinforcement Learning - Brendan O'Connor - Natural Language Processing as Social Measurement - Jas Sekhon – Causal Inference in The Age of Big Data - Tyler McCormick - Quantifying Uncertainty in Network Regressions	CGIS Knafel (North) K354
5:00-6:15	Interactive Poster and Whiteboard Session - Brandon Stewart - Marc Ratkovic - Alex Volfovsky - David Parkes - Susan Athey - Hanna Wallach	CGIS Knafel (North) K354
6:15 –	Working Dinner	CGIS Knafel (North) K354

“Please note that the workshop materials are not to be distributed outside of the ISAT workshop without prior DARPA approval.”

Tuesday, February 09, 2016: 10:01 PM



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MIT Endicott House
80 Haven Street Dedham, MA 02026

<http://www.mitendicotthouse.org>
<http://www.mitendicotthouse.org/index.cfm/directions.html>

Friday, February 12, 2016		
8:30	Breakfast	
9:15–10:05	Eytan Bakshy - Industrial Causal Inference	Living Room
10:05-10:20	Break	
10:20-11:05	Research Talks (10 mins + 5 mins Q&A) • Thomas Richardson - TBA • Jamie Robins – TBA • David Parkes – Causal Inference in Systems with Multiple Actors and Incentives	Living Room
11:05-12:15	Poster/Whiteboard Session – Cool Stuff: A Team Building Exercise – Sour-to-Sweet • Luke Miratrix • Michael Littman • David Jensen • Jas Sekhon • Jamie Robins (whiteboard) • Teppei Yamamoto • Cynthia Rudin	Living Room
12:15-1:30	Lunch	
1:30-2:15	Breakouts - Interactive Whiteboard on Open Problems • Groups will brainstorm about DARPA hard problems (generated from the night before - need to form groups)	Living Room Killian Suite Endicott Parlor Gun Room
2:15 -2:40	Group Share Back of Open Problems/Breakouts 1-2 representatives from each group	Living Room
2:40 - 3:25	Research Talks (10 mins + 5 mins Q&A) • Susan Athey - Economic Approaches to Causal Inference • David Jensen - Beyond Linear Models and Bayesian Networks: Learning Causal Models in Highly Expressive Representations • Kosuke Imai - High Dimensional Causal Inference	Living Room
3:25-3:40	Break	
3:40-5:00	Closing Reflections • Chris Winship (15 mins + 5 mins Q&A) • Sendhil Mullainathan (40 mins + 5 mins Q&A)	Living Room

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