DAE WOONG HAM

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Ph.D. Candidate in Department of Statistics, Harvard

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BIOSKETCH

My research interest is in solving complex causal inference problems motivated by real-world scenarios. I am currently being advised by Kosuke Imai and Lucas Janson in the Statistics Department at Harvard as a fifth year Ph.D. candidate on the job market. I have additionally worked with Luke Miratrix and Iavor Bojinov throughout my Ph.D.

EDUCATION

Harvard University **2019 - Current**
Ph.D. in Statistics

University of California Berkeley **2015 - 2019**
Bachelor of Arts in Applied Mathematics and Statistics

PAPERS

1) **D. Ham**, L. Janson, K. Imai. Using Machine Learning to Test Hypothesis in Conjoint Analysis, *Political Analysis* 2023
https://arxiv.org/abs/2201.08343

2) **D. Ham**, L. Miratrix. Benefits and costs of matching prior to a Difference in Difference analysis when parallel trends does not hold, *Annals of Applied Statistics* 2024
https://arxiv.org/abs/2205.08644

3) **D. Ham**, J. Qie. Hypothesis Testing in Sequentially Sampled Data: ART to Maximize Power Beyond iid Sampling, TEST 2023
https://link.springer.com/article/10.1007/s11749-023-00861-2

4) **D. Ham,** I. Bojinov, M. Lindon, M. Tingley. Design-Based Confidence Sequence for Anytime-Valid Inference. 2022
https://arxiv.org/abs/2210.08639

5) M. Lindon, **D. Ham**, M. Tingley, I. Bojinov. Anytime-Valid F-Tests for Faster Sequential Experimentation Through Covariate Adjustment, 2022
https://arxiv.org/abs/2210.08589

6) **D. Ham,** I. Bojinov, M. Lindon, M. Tingley Design-Based Inference for Multi-arm Bandits. 2023
https://arxiv.org/abs/2302.14136

7) **D. Ham,** I. Bojinov, M. Lindon, M. Tingley. Anytime-valid Causal Inference for Randomized Experiments in Panel and Longitudinal Settings. 2023

AFFILIATIONS/INTERNSHIPS

Netflix Research + Internship **2022 - Current**
- Collaboration with Netflix experimentation team since 2022 May. Internship at 2023 summer. Research currently utilized daily on Netflix's experimentation platform

Harvard Statistics Consulting Group **2020 - 2022**
- Helps Harvard undergrad/grad across all discipline on their applied statistics problems

Harvard Causal Inference Reading Group **2019 - Current**
- Organized by Kouske Imai, Luke Miratrix, Jose Zubizarreta, and myself

Luke Miratrix's C.A.R.E.S. Lab Group **2019 - Current**
- https://cares.gse.harvard.edu

Kosuke Imai's Political Science Lab Group **2021 - Current**

INVITED CONFERENCE

American Causal Inference Conference (UC Berkeley) **2022 May**
- D. Ham, L. Miratrix. Quantifying the benefits and costs of matching prior to a Difference in Difference analysis when the parallel trend assumption does not hold

Society for Political Methodology (University of Washington Saint Louis) **2022 July**
- D. Ham, L. Janson, K. Imai. Using Machine Learning to Test Hypothesis in Conjoint Analysis (2022)

American Political Science Association (Montreal) **2022 September**
- D. Ham, L. Janson, K. Imai. Using Machine Learning to Test Hypothesis in Conjoint Analysis (2022)

Conference on Digital Experimentation (MIT) **2022 October**
- D. Ham, I. Bojinov, M. Lindon, M. Tingley. Design-Based Confidence Sequence for Anytime-Valid Inference (2022)

American Causal Inference Conference (UT Austin) **2023 May**
- D. Ham, I. Bojinov, M. Lindon, M. Tingley. Design-Based Confidence Sequence for Anytime-Valid Inference (2022)

Society for Political Methodology (Stanford University) **2023 June**
- D. Ham, I. Bojinov, M. Lindon, M. Tingley. Design-Based Confidence Sequence for Anytime-Valid Inference (2022)

TEACHING

Stat 186 (Harvard Undergraduate Class): Causal Inference, Spring 2022
Stat 286 (Harvard Graduate Class): Causal Inference with Applications, Spring 2021
Stat 139 (Harvard Undergraduate Class): Linear Modeling, Fall 2020

SOFTWARE

Proficient in R and Python
Author of CRTConjoint package in the Comprehensive R Archive Network and Github (2022)
CRAN link: https://cran.r-project.org/web/packages/CRTConjoint/index.html
Github link: https://github.com/daewoongham97/CRTConjoint
Note: All code, including errors, are written and maintained by me

Visa Status) I am currently a permanent residence holder in the United States