David Puelz

Academic Experience

The University of Chicago 2018 - present

Booth School of Business, Econometrics and Statistics

Principal Researcher

Interests: causal inference, randomizations, networks, machine learning, applications of statistics

The University of Texas at Austin 2013 - 2018

McCombs School of Business, Statistics Group

Graduate Research Assistant

Wesleyan University 2009 - 2011

Mathematics and Physics Departments

Teaching Assistant

The University of California, Los Angeles Summer 2010

Institute for Pure and Applied Math

Researcher

Max Planck Institute, Göttingen, Germany Summer 2009

Dynamics and Self-organization

Researcher

Education

The University of Texas at Austin 2018

McCombs School of Business, Statistics Group

Ph.D., Statistics

Topics: causal inference, Bayesian modeling, applications of statistics

The University of Texas at Austin

McCombs School of Business, Statistics Group

M.S., Statistics

Wesleyan University 2011

Honors in Mathematics, Phi Beta Kappa

B.A., Mathematics and Physics

Publications

Fisher meets BART: Integrating Causal Machine Learning and Randomization Tests
David Puelz and Panos Toulis

In preparation (2020)

Estimating Displacement Effects of a Hot Spot Policing Intervention in Medellín, Colombia Guillaume Basse, Avi Feller, Donald Green, David Puelz, and Panos Toulis In preparation (2020)

2015

A Symmetric Prior for Multinomial Probit Models Lane Burgette, David Puelz, and P. Richard Hahn Bayesian Analysis (to appear) [arXiv:1912.10334]

Monotonic Effects of Characteristics on Returns Jared Fisher, David Puelz, and Carlos Carvalho Annals of Applied Statistics (to appear) [SSRN:3212934]

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference David Puelz, Panos Toulis, Guillaume Basse, and Avi Feller In revision at the Journal of the Royal Statistical Society, Series B (2020) [arXiv:1910.10862]

Financial Literacy and Economic Outcomes
David Puelz and Robert Puelz
Submitted (2020)
[SSRN:3302978]

Portfolio Selection for Individual Passive Investing
David Puelz, P. Richard Hahn, and Carlos Carvalho
Applied Stochastic Models in Business and Industry (2020)
[SSRN:2995484]

Regularization and Confounding in Linear Regression for Treatment Effect Estimation P. Richard Hahn, Carlos Carvalho, David Puelz, and Jingyu He Bayesian Analysis 13 (2018). No 1 [link to journal]

Variable Selection in Seemingly Unrelated Regressions with Random Predictors David Puelz, P. Richard Hahn, and Carlos M. Carvalho Bayesian Analysis 12 (2017). No 4 [link to journal]

Optimal ETF Selection for Passive Investing
David Puelz, P. Richard Hahn, and Carlos Carvalho
Working paper
[arXiv:1510.03385]

Presentations

Randomization Tests of Causal Effects Under General Interference Arizona State University Virtual — November 2020

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference Design and Analysis of Experiments — University of Tennessee, Knoxville Knoxville, TN — October 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference Advances with Field Experiments — University of Chicago Chicago, IL — September 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference (Poster) *Best Poster prize winner

Society for Political Methodology Annual Meeting — MIT

Cambridge, MA — July 2019

Monotonic Effects of Characteristics on Returns Eastern Asia ISBA Conference — Kobe University

Kobe, JP — July 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference Economics Workshop — Keio University

Tokyo, JP — July 2019

Monotonic Effects of Characteristics on Returns

Seminar on Bayesian Inference in Econometrics and Statistics — Brown University

Providence, RI — May 2019

Randomization Tests of Causal Effects Under General Interference

Atlantic Causal Inference Conference — McGill University

Montreal, CA — May 2019

Randomization Tests of Causal Effects Under General Interference

international conference on design of experiments — University of Memphis

Memphis, TN — May 2019

Randomization Tests of Causal Effects Under General Interference

Chicago Booth Econometrics and Statistics Seminar

Chicago, IL — February 2019

Monotonic Effects of Characteristics on Returns

Chicago Booth Research Workshop

Chicago, IL — December 2018

Utility-based Feature Selection for Econometrics

International Society for Bayesian Analysis World Meeting

Edinburgh, UK — June 2018

Posterior Summarization

University of Notre Dame Mendoza School of Business

South Bend, IN — November 2017

Utility-based Feature Selection for Finance and Econometrics

IROM PhD Seminar. University of Texas.

Austin, TX — November 2017

Regret-based Selection

Informs Annual Meeting

Houston, TX — October 2017

Sparse Dynamic Portfolio Selection

Joint Statistical Meetings

Baltimore, MD — August 2017

Sparse Dynamic Portfolio Selection Informs Advances in Decision Analysis Austin, TX — June 2017

Regret-based Selection

Seminar on Bayesian Inference in Econometrics and Statistics — Washington University St. Louis, MO — May 2017

Penalized Utility Estimators in Finance IROM Department Symposium. University of Texas Austin, TX — February 2017

Posterior Summarization in Finance IROM PhD Seminar. University of Texas Austin, TX — November 2016

Sparse Mean-Variance Portfolios Joint Statistical Meetings Chicago, IL — August 2016

Penalized Utility Estimators in Finance International Society for Bayesian Analysis World Meeting Sardinia, Italy — June 2016

Penalized Utility Estimators in Finance Seminar on Bayesian Inference in Econometrics and Statistics — University of Pennsylvania Philadelphia, PA — April 2016

Sparse ETF Investing IROM PhD Seminar. University of Texas Austin, TX — March 2016

Penalized Utility Estimators in Finance Goldman Sachs & Co New York City, NY — February 2016

The ETF Tangency Portfolio Seminar on Bayesian Inference in Econometrics and Statistics — Washington University St. Louis, MO — May 2015

Honors

Graduate Continuing Fellowship University of Texas Graduate School — 2017 - 2018

Professional Development Award University of Texas McCombs School of Business — 2015 - 2016

Dean's Fellowship University of Texas McCombs School of Business — 2013 - 2018

Bonham Fellowship University of Texas McCombs School of Business — 2014 Jastrow Fellowship University of Texas McCombs School of Business — 2013

Rae Shortt Prize (excellence in mathematics)

Wesleyan University — 2010

Robertson Prize (outstanding sophomore in mathematics)

Wesleyan University — 2009

Service

Referee For: Annals of Applied Statistics, Journal of Business and Economic Statistics, Neural Computing and Applications.

Chicago Booth Research Staff Advisory Group, 2020 - present.

Employment

i-360, LLC 2018 - present

Data Science Team

Part-time Econometric Consulting

Goldman Sachs & Co. 2011 - 2012

Investment Management Division

Analyst

(updated December 2020)