# 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

2013 - 2018 The University of Texas at Austin

McCombs School of Business, Statistics Group

Graduate Research Assistant

2009 - 2011 Wesleyan University

Mathematics and Physics Departments

Teaching Assistant

Summer 2010 The University of California, Los Angeles

Institute for Pure and Applied Math

Researcher

Max Planck Institute, Göttingen, Germany Summer 2009

Dynamics and Self-organization

Researcher

### Education

#### 2018 The University of Texas at Austin

McCombs School of Business, Statistics Group

Ph.D., Statistics

Topics: causal inference, Bayesian modeling, applications of statistics

### The University of Texas at Austin

2015

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)

A Symmetric Prior for Multinomial Probit Models Lane Burgette, David Puelz, and P. Richard Hahn Submitted (2020) [arXiv:1912.10334]

Monotonic Effects of Characteristics on Returns Jared Fisher, David Puelz, and Carlos Carvalho Revision (2020) [SSRN:3212934]

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference David Puelz, Panos Toulis, Guillaume Basse, and Avi Feller Submitted (2019) [arXiv:1910.10862]

Financial Literacy and Economic Outcomes
David Puelz and Robert Puelz
Submitted (2019)
[SSRN:3302978]

Portfolio Selection for Individual Passive Investing
David Puelz, P. Richard Hahn, and Carlos Carvalho
Applied Stochastic Models in Business and Industry (2019)
[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

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.

## **Employment**

i-360, LLC 2018 - present

Data Science Team

Part-time Econometric Consulting

Goldman Sachs & Co. 2011 - 2012

Investment Management Division

Analyst

(updated March 19, 2020)