## Simon Freyaldenhoven

https://simonfreyaldenhoven.github.io/

Contact Research Department

Information FRB Philadelphia

10 Independence Mall

Philadelphia, PA 19106, USA

PROFESSIONAL Federal Reserve Bank of Philadelphia, Philadelphia, PA, USA

Positions Senior Machine Learning Economist, 2022 - present

Machine Learning Economist, 2018 - 2021 Brown University, Providence, RI, USA

Visiting Assistant Professor, Spring 2018

EDUCATION Brown University, Providence, RI, USA

Ph.D., Economics, January 2018

Thesis Title: Essays on Factor Models and Latent Variables in Economics

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M.A., Economics, May 2013

Maastricht University, Maastricht, The Netherlands

M.Sc., Econometrics and Operations Research, August 2012 B.Sc., Econometrics and Operations Research, August 2011

**PUBLICATIONS** 

xtevent: Estimation and Visualization in the Linear Panel Event-Study Design (with Chris Hansen, Jorge Pérez Pérez, Jesse Shapiro, and Constantino Carreto), *Stata Journal*, forthcoming.

Visualization, Identification, and Estimation in the Linear Panel Event Study Design (with Chris Hansen, Jorge Pérez Pérez, and Jesse Shapiro), Advances in Economics and Econometrics: Twelfth World Congress, forthcoming. DOI

Factor Models with Local Factors - Determining the Number of Relevant Factors, Journal of Econometrics, May 2022. DOI

• Winner of the Dennis Aigner prize for the best empirical paper published in 2021-22 in the Journal of Econometrics

**Pre-event Trends in the Panel Event-study Design** (with Chris Hansen and Jesse Shapiro), *American Economic Review*, September 2019. **DOI** 

WORKING PAPERS Identification through Sparsity in Factor Models: The  $\ell_1$ -rotation criterion. DOI

On the Testability of the Anchor-words Assumption in Topic Models (with Shikun Ke, Dingyi Li, and Pepe Montiel Olea)

Measuring Fairness in the US Mortgage Market (with Hadi Elzayn, Ryan Kobler, and Minchul Shin)

(Visualizing) Plausible Treatment Effect Paths (with Chris Hansen)

Constructing applicants from loan-level data: A case study of mortgage applications (with Hadi Elzayn, and Minchul Shin)

#### Affiliations

Brown University, Data Science Initiative, 2018

# ACADEMIC CONFERENCES AND SEMINARS

### 2024 (including scheduled)

Banco de México; University of Bonn; ITAM; Econometric Society Interdisciplinary Frontiers Economics and AI+ML Meeting; Federal Reserve System Econometrics Meeting

#### 2023

University of Cologne; Annual Meeting of the International Association for Applied Econometrics; Econometric Society European Summer Meeting; NBER/NSF Time Series Conference

#### 2022

University of Connecticut; RCEA Conference on Recent Developments in Economics, Econometrics and Finance; Barcelona Summer Forum - Advances in Econometrics; Philadelphia FED Conference on Frontiers in Machine Learning and Economics: Methods and Applications; Interagency Risk Quantification Forum (discussant)

#### 2021

Federal Reserve Bank of New York; University of Geneva; Econometric Society European Meeting; New perspectives on Consumer Behavior in Credit and Payments Markets conference (discussant); Federal Reserve System Econometrics Meeting (discussant)

#### 2020

Brown University; World Congress of the Econometric Society; Federal Reserve System Econometrics Meeting; The Society for Financial Econometrics seminar (discussant)

#### 2019

University of Pennsylvania; Bundesbank; Annual Meeting of the International Association for Applied Econometrics; Federal Reserve System Econometrics Meeting (discussant); NBER-EFSF Workshop on Methods and Applications for DSGE Models (discussant); Southern Economic Association Annual Meeting; Greater New York Econometrics Colloquium; European Conference of the Econom[etr]ics Community

#### 2018

University of Konstanz; University of St. Gallen; European School of Management and Technology; University of Amsterdam; University of Virginia; Federal Reserve Bank of Philadelphia; Interagency Risk Quantification Forum (discussant)

#### 2017

NBER/NSF Time Series Conference; CIREQ Econometrics Conference

#### 2016

European Conference of the Econom[etr]ics Community; Maastricht Workshop on Advances in Quantitative Economics

FELLOWSHIPS AND AWARDS **Dennis Aigner prize** (awarded to the best empirical paper published in 2021-22 in the Journal of Econometrics), 2023

George Borts Prize (awarded annually to the best dissertation in Economics at Brown

University), 2018

Teaching

**Brown University**, Providence, RI, USA Big Data, Spring 2018

Refereeing

American Economic Journal: Applied Economics • American Economic Review • American Economic Review: Insights • Annals of Statistics • Econometrica • Econometric Reviews • Econometric Theory • Health Economics • International Journal of Forecasting • Journal of Applied Econometrics • Journal of Business & Economic Statistics • Journal of Econometrics • Journal of Economic Dynamics and Control • Journal of Political Economy • Journal of Political Economy Microeconomics • Journal of Statistical Planning and Inference • Journal of the American Statistical Association • Operations Research • Quarterly Journal of Economics • The Review of Economics and Statistics • The Review of Economic Studies • ACM Conference on Economics and Computation

Advising

Le Xu, University of Pennsylvania, 2020. Placement: Shanghai Jiao Tong University