Taylor R. Brown

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Education

Ph.D. Statistics, The University of Virginia, 2018.

M.S. Statistics, The University of Connecticut, 2013.

B.A. Mathematics & Economics, The University of Connecticut, 2010.

Employment

Assistant Professor of Statistics, General Faculty, Department of Statistics, University of Virginia 2021–.

Lecturer of Statistics, Department of Statistics, University of Virginia 2018-2021.

Articles and Papers

The Most Difference in Means: A Statistic for Null and Near-Zero Results, 2022.
arXiv:2201.01239 [stat.ME]

The Most Difference in Means: A Statistic for Null and Near-Zero Results, 2022.
arXiv:2201.01239 [stat.ME]

An Introduction to R and Python For Data Analysis: A Side By Side Approach

A Short Introduction to PF: A C++ Library for Particle Filtering, 2020.
The Journal of Open Source Software

Approximating Posterior Predictive Distributions by Averaging Output From Many Particle Filters, 2020.
arXiv:2006.15396 [stat.ME]

PF: A C++ Library for Fast Particle Filtering, 2020.
arXiv:2001.10451 [stat.CO]

A Pseudo-Marginal Metropolis-Hastings Algorithm for Estimating Generalized Linear Models in the Presence of Missing Data, 2019.
arXiv:1907.09090 [stat.ME]

A Markov-Switching Factor Stochastic Volatility Model, 2018.
arXiv:1903.01841v1 [stat.AP]

Brown, Taylor. *Factor Stochastic Volatility Models for Portfolio Construction.* University of Virginia, Department of Statistics, PHD (Doctor of Philosophy), 2018, https://doi.org/10.18130/V3ZW18R9V

Public Software

`pf`: a C++ library for fast particle filtering.
https://github.com/tbrown122387/pf

`gradeR`: helps grade R script assignment submissions!
https://cran.r-project.org/web/packages/gradeR/index.html

`cPseudoMaRg`: Constructs a Correlated Pseudo-Marginal Sampler
https://cran.r-project.org/web/packages/cPseudoMaRg/index.html

`ssme`: a C++ static library for the estimation of state space models.
https://github.com/tbrown122387/ssme

Teaching

University of Virginia

STAT 8120: Topics in Statistics (particle filtering)

STAT 7510: Advanced Topics in Statistical Inference

STAT 7200: Introduction to Advanced Probability

STAT 6440: Introduction to Bayesian Methods

STAT 6021: Linear Models for Data Science

STAT 5430: Statistical Computing with SAS and R

STAT 5170: Applied Time Series

STAT 4170: Financial Time Series and Forecasting

STAT 3250: Data Analysis With Python

STAT 3120: Introduction to Mathematical Statistics

STAT 2120: Introduction to Statistical Analysis

STAT 1602: Introduction to Data Science with Python

University of Connecticut

STAT 1000 Introduction to Statistics

Departmental Service

University of Virginia

Graduate Committee (Fall 2020-)

Undergraduate Major Advisor (Fall 2021-)

Computer Skills Confirmation Test (formerly the Computer Language Exam) (2018-)

Honors and awards

2021: Learning Technology Incubator Grant

2016: Summer Fellowship U.Va. Department of Statistics

2015: Summer Fellowship U.Va. Department of Statistics

2014: Summer Fellowship U.Va. Department of Statistics

2014: U.Va. Jefferson Trust Big Data Fellowship pre-proposal award

2014: U.Va. Graduate Statistics Seminar Committee Co-Chair

2013: UConn Ross D. MacKinnon Graduate Fellowship

Memberships

American Statistical Association

International Society for Bayesian Analysis

Institute of Mathematical Statistics