Michael Jauch ✉ mjauch@fsu.edu michaeljauch.github.io

Employment

2022 - Now	Assistant Professor Department of Statistics Florida State University
2019 - 2022	Postdoctoral Associate Center for Applied Mathematics Cornell University Adviser: David Matteson
2012 - 2014	Data Scientist Civitas Learning, Inc.

Education

2014 - 2019	PhD in Statistical Science Duke University Advisers: Peter Hoff and David Dunson
2011 - 2012	Graduate Study in Mathematics Central European University
2007 - 2011	BA in Mathematics Rice University

Research interests

Shape-constrained inference, time series analysis and changepoint detection for complex data, uncertainty quantification for models with orthogonal matrix parameters, and computational aspects of Bayesian statistics.

Publications

Andrew M. Thomas, **Michael Jauch**, and David S. Matteson (2025+). Bayesian changepoint detection via logistic regression and the topological analysis of image series. To appear in *Technometrics*. [journal] [arxiv]

Michael Jauch, Andrés F. Barrientos, Víctor Peña, and David S. Matteson (2025+). Mixture representations and Bayesian nonparametric inference for likelihood ratio ordered distributions. To appear in *Bayesian Analysis*. [journal] [arxiv] [code]

Víctor Peña and **Michael Jauch** (2025+). Properties of the generalized inverse Gaussian with applications to Monte Carlo simulation and distribution function evaluation. *Statistics & Probability Letters*. Vol. 220, Article 110359. [journal] [arxiv]

Phillip A. Jang, **Michael Jauch**, and David S. Matteson (2022). Functional Stochastic Volatility in Financial Option Surfaces. *Data Science in Science*. Vol. 1, No. 1, 6-19. [journal]

Michael Jauch, Peter D. Hoff, and David B. Dunson (2021). Monte Carlo Simulation on the Stiefel Manifold via Polar Expansion. *Journal of Computational and Graphical Statistics*. Vol. 30, No. 3, 622-631. [journal] [arxiv] [code]

Michael Jauch, Peter D. Hoff, and David B. Dunson (2020). Random orthogonal matrices and the Cayley transform. *Bernoulli*. Vol. 26, No. 2, 1560–1586. [journal] [arxiv] [code]

Michael Jauch, Paolo Giordani, and David B. Dunson (2017). A Bayesian oblique factor model with extension to tensor data. *Proceedings of the Conference of the Italian Statistical Society*.

Michael Jauch and Víctor Peña (2016). Bayesian optimization with shape constraints. *NeurIPS Workshop on Bayesian Optimization*. [arxiv]

Yan Digilov, Leobardo Rosales, Anand Shah, Michael Wolf, William Eggert, Robert Hardt, James Hart, **Michael Jauch**, Rob Lewis, Conor Loftis, Aneesh Mehta, and Hector Perez. (2010) Energy-minimizing unit vector fields. *Involve*. Vol. 3, No. 4, 435–45. [journal]

Preprints

Michael Jauch, Marie-Christine Düker, and Peter Hoff (2025+). Prior distributions for structured semi-orthogonal matrices. [arxiv]

James Losey, **Michael Jauch**, Axel Cortes-Cubero, Haoxuan Wu, Adithya Polasa, Stephanie Sauve, Roberto Rivera, David S. Matteson, and Mahmoud Moradi (2025+). Simulating Freely-diffusing Single-molecule FRET Data with Consideration of Protein Conformational Dynamics. Submitted. [biorxiv]

Funding

National Science Foundation Division of Mathematical Sciences Award #2515376.
Award Period: 2025 - 2028. Role: Co-PI. Amount: $240,000.

Florida State University First Year Assistant Program.
Award Period: 2023. Role: PI. Amount: $20,000.

PhD Advising

Major Professor for Yuhui Wang

Doctoral Supervisory Committee member for Madelyn Clinch, Junge Li, and Yue Mu

Teaching

Instructor at Florida State University:

STA 4202/5206 Analysis of Variance and Design of Experiments. Spring 2023, 2024, 2025.

STA 4102: Computational Methods in Statistics I. Fall 2022, 2023, 2024.

Instructor at Cornell University:

STSCI 4550: Applied Time Series Analysis. Spring 2020, Spring 2021, Spring 2022.

Teaching assistant at Duke University:

STA 623: Statistical Decision Theory with David Dunson. Fall 2018.

STA 642: Time Series and Dynamic Models with Mike West. Fall 2017.

STA 832: Multivariate Statistical Analysis with Peter Hoff. Spring 2017.

STA 360/601: Bayesian Methods and Modern Statistics with Rebecca Steorts. Spring 2016.

STA 360/601: Bayesian Methods and Modern Statistics with David Dunson. Fall 2015.

STA 101: Data Analysis and Statistical Inference with Mine Çetinkaya-Rundel. Fall 2014.

Invited Talks

ICSA in Nashville. June 2024.

Joint Statistical Meetings in Toronto. August 2023.

Statistics Seminar at University of Massachusetts Amherst. May 2023.

CMStatistics via Zoom. December 2022.

Statistics and Data Science Seminar at Cornell University. February 2022.

ACMS Colloquium at the University of Notre Dame. January 2022.

Statistics Seminar at University of Wisconsin - Madison via Zoom. January 2022.

Statistics Colloquium at Florida State University via Zoom. January 2022.

Statistics Seminar at Baruch College via Zoom. December 2021.

CMStatistics via Zoom. December 2021.

BayesComp in Gainesville. January 2020.

Statistics and Data Science Seminar at Cornell University. March 2019.

ISBA World Meeting in Edinburgh. June 2018.

Conference of the Italian Statistical Society in Florence. June 2017.

Contributed Talks

14th International Conference on Bayesian Nonparametrics at UCLA. June 2025.

Conference for Ruey Tsay at the University of Chicago Booth School of Business. May 2023.

Joint Statistical Meetings via Zoom. August 2021.

Joint Statistical Meetings in Vancouver. August 2018.

Poster Presentations

ISBA World Meeting in Venice. July 2024.

ISBA World Meeting in Montreal. June 2022.

Joint Statistical Meetings in Denver. July 2019.

Joint Statistical Meetings in Baltimore. August 2017.

NeurIPS Workshop on Bayesian Optimization in Barcelona. December 2016.

ISBA World Meeting in Sardinia. June 2016.

Service

FSU Statistics Graduate Admissions Committee. 2023 - Present.

FSU Statistics Colloquium Co-Director. Fall 2024 – Spring 2025.

Member of the Local Organizing Committee for the Theory and Foundations of Statistics in the Era of Big Data conference at FSU. June 2024.

Referee for *Bayesian Analysis*, *Biometrics*, *Data Science in Science*, *Journal of the American Statistical Association*, *Journal of Applied Statistics*, *Journal of Computational and Graphical Statistics*, *Journal of Econometrics*, *Research in Statistics*, *Scandinavian Journal of Statistics*, and *Spatial Statistics*.

Associate editor for the ASA open-access journal *Data Science in Science* [webpage]

Duke Statistical Science GCC representative (2015-2016)

Grants and Awards

FSU First Year Assistant Professor Summer Award

ISBA Student Travel Award, 2018

Duke Graduate School Travel Award

Duke Statistical Science Fellowship, 2014-2015

Central European University Full Fellowship, 2011-2012

National Merit Scholarship, 2007-2011

Miscellanea

David Kil, Jorgen Harmse, Michael Jauch, et al. US Patent Application No. 14/592,821. 2015.