CONTACT Information Department of Statistics

Mathematical Sciences Building 4117

One Shields Avenue

University of California, Davis Davis, CA, 95616, U.S.A.

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Professional Positions

EDUCATION

Department of Statistics, University of California, Davis, CA, U.S.A.

Assistant Professor

July 2018 to present

Department of Statistics and Grossman Center for the Statistics of Mind, Columbia University, New York, NY, U.S.A.

Postdoctoral Research Scientist Supervisor: Liam Paninski, Ph.D. Sept. 2016 to June 2018

University of Washington, Seattle, WA, USA

Ph.D. in Biostatistics

August 2016

M.S. in Biostatistics

June 2015

Department of Biostatistics

Advisors: Ali Shojaie, Ph.D. and Daniela Witten, Ph.D.

Peking University, Beijing, P.R.China

B.S. in Statistics July 2011

Yuanpei College

B.A. in Economics (Double Major)

July 2011

National School of Development

Manuscripts in Preparation

- 1. Yu Liu, Zhichao Jiang, and **Shizhe Chen**, Instrumental variable analysis with multivariate point process treatments *In progress*
- 2. Zitong Zhang* and **Shizhe Chen**, Simultaneous clustering and estimation of additive shape invariant models for recurrent event data *In progress* (*: graduate student).
- 3. **Shizhe Chen**, Ali Shojaie, Eric Shea-Brown, and Daniela M. Witten. The multivariate Hawkes process in high dimensions: beyond mutual excitation. *In progress*.
- 4. Hao Chen, **Shizhe Chen**, and Xinyi Deng. A Universal Nonparametric Event Detection Framework for Neuropixels Data. *In progress*.

PUBLICATIONS

- 1. Zitong Zhang* and **Shizhe Chen**, Semiparametric estimation for dynamic network models with shifted connecting intensities *Annals of Applied Statistics*, 2024, (*: graduate student).
- 2. Zhichao Jiang*, **Shizhe Chen***, and Peng Ding. An instrumental variable method for point processes: generalized Wald estimation based on deconvolution *Biometrika*, 2023, 10.1093/biomet/asad005 (*: equal contribution).

- 3. Xinyi Deng, **Shizhe Chen**, Marielena Sosa, Mattias P. Karlsson, Xue-Xin Wei, and Loren M. Frank, A Variable Clock Underlies Internally Generated Hippocampal Sequences, *Journal of Neuroscience*, 2022,
- 4. Fang Han, **Shizhe Chen**, and Han Liu. Distribution-free tests of independence in high dimensions. *Biometrika*, 104(4): 813-828, 2017.
- 5. **Shizhe Chen**, Daniela M. Witten, and Ali Shojaie. Nearly assumptionless screening for the mutually-exciting multivariate Hawkes process. *Electronic Journal of Statistics*, 11(1):1207–1234, 2017.
- 6. **Shizhe Chen**, Ali Shojaie, and Daniela M. Witten. Network reconstruction from high-dimensional ordinary differential equations. *Journal of the American Statistical Association*, 2017.
- 7. Linbo Wang, **Shizhe Chen**, and Ali Shojaie. Discussion on "Causal inference by using invariant prediction: identification and confidence intervals". *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 78(5):1004–1005, 2016.
- 8. **Shizhe Chen**, Daniela M. Witten, and Ali Shojaie. Selection and estimation for mixed graphical models. *Biometrika*, 102(1):47–64, 2015.

TEACHING EXPERIENCE

Department of Statistics, University of California, Davis, Davis, CA, U.S.A.

Applied Statistical Methods: Analysis of Variance (STA 106)

Applied Statistical Methods: Regression Analysis (STA 108)

Fundamentals of Statistical Data Science (STA 141A)

Statistical Methods for Research II (STA 207)

Topics in Statistical Methods and Models (STA 251)

Grant

 ${f [PI]}$ NSF DMS-1916476 Statistical Inference and Experimental Design for Recurrent Event Data with Applications in Neuroscience 2019 - 2023

Professional Service

Referee Service:

AAAI Conference on Artificial Intelligence, Annales de l'Institut Henri Poincaré, Annals of Statistics, Annals of Applied Statistics, Australian & New Zealand Journal of Statistics, Bernoulli, Biometrics, Biometrika, Bioinformatics, Biostatistics, Computational and Systems Neuroscience (COSYNE), Computational Statistics and Data Analysis, Electronic Journal of Statistics, IEEE/ACM Transactions on Computational Biology and Bioinformatics, Journal of the American Statistical Association, Journal of Agricultural, Biological, and Environmental Statistics, Journal of Business & Economic Statistics, Journal of Computational and Graphical Statistics, Journal of Machine Learning Research, Journal of Multivariate Analysis, Journal of the Royal Statistical Society Series B, NeuroImage, PLOS Computational Biology, Statistics in Medicine, Statistics and Probability Letters

University Service:

MS Advising Committee, Graduate Program in Statistics Committees, University of California, Davis 2020 to 2023

Graduate Students of Color Mentorship Program, Cross Cultural Center, University of California, Davis

2020 to 2021

Written M.S. Comprehensive Exam Committee, Graduate Program in Statistics, University of California, Davis 2019 to present

Infrastructure Committee: Computing, Information, Library, Department of Statistics, University of California, Davis

2020 to 2021

Ph.D. Written Pre-Qualifying Exam, Graduate Program in Biostatistics, University of California, Davis

2019 to present

PhD Admission Committee, Graduate Program in Statistics, University of California, Davis

2021 to 2022

MS Admission Committee, Graduate Program in Statistics, University of California, Davis

2019 to 2020, 2022 to present

Publicity and Event Planning: Newsletter, fundraising, Department of Statistics, University of California, Davis 2018 to 2019

Conference:

Organized invited sessions in WNAR/IBS 2024, EcoSta 2024, JSM 2021, WNAR/IBS 2021, ICSA International Conference 2019

INVITED TALKS

7th International Conference on Econometrics and Statistics, Beijing, China (July 2024)

2024 ICSA Applied Statistics Symposium, Nashville, Tennessee (June 2024)

2024 WNAR/IMS/Graybill Annual Meeting, Fort Collins, Colorado (June 2024)

Seminar, Department of Biostatistics, Vanderbilt University (December 2023)

Seminar, Department of Biostatistics, University of California, San Francisco (October 2023)

2023 Hangzhou International Conference on Frontiers of Data Science, Zhejiang University (August 2023)

Forums on Frontiers of Statistics and Data Sciences, Xiamen University (July 2023) The 6th International Conference on Econometrics and Statistics, Tokyo, Japan (August 2023)

ICSA Applied Statistics Symposium, Ann Arbor, MI, USA (June 2023)

BCBDI, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (June 2022)

The 35th New England Statistics Symposium, Virtual conference (May 2022)

WNAR/IMS conference, Virtual conference (June 2021)

Center for Statistical Science, Peking University (May 2021)

Joint Statistical Meetings, Virtual conference (August 2020)

The 3rd International Conference on Econometrics and Statistics, NCHU, Taichung, Taiwan, China (June 2019)

ICSA Applied Statistics Symposium, Raleigh, NC, USA (June 2019)

Mathematical biology seminar, Department of Mathematics, UC Davis (April 2019)

Division of Biostatistics, University of California, Berkeley, CA, USA (April 2019)

The second Biophotonics Workshop, UC Davis (March 2019)

20th Meeting of New Researchers in Statistics and Probability, Burnaby, BC, Canada (July 2018)

Gatsby Tri-Center Meeting, New York, NY, USA (June 2018)

ICSA Applied Statistics Symposium, New Brunswick, NJ, USA (June 2018)

Peter G. Hall Conference 2018, Davis, CA, USA (May 2018)

Department of Statistics & Data Science, Carnegie Melon University, Pittsburgh, PA, USA (Feb. 2018)

Department of Statistics, University of California, Irvine, CA, USA (Feb. 2018)

Department of Statistics, University of California, Davis, CA, USA (Feb. 2018)

Department of Statistics, University of Illinois at Urbana--Champaign, IL, USA (Jan. 2018)

Department of Statistics and Operations Research, University of North Carolina, Chapel Hill, NC, USA (Jan. 2018)

Department of Biostatistics, Yale University, New Haven, CT, USA (Jan. 2018) Department of Biostatistics, University of Michigan, Ann Arbor, MI, USA (Jan. 2018)

Department of Statistics, University of Michigan, Ann Arbor, MI, USA (Jan. 2018) Department of Statistics, University of Florida, Gainesville, FL, USA (Jan. 2018) Department of Statistics, North Carolina State University, Raleigh, NC, USA (Jan. 2018)

Department of Mathematics & Statistics, University of Massachusetts Amherst, MA, USA (Dec. 2017)

Joint Statistical Meetings, Baltimore, MD, USA (August 2017)

WNAR/IMS conference, Santa Fe, NM, USA (June 2017)

Eighth International Workshop, Statistical Analysis of Neuronal Data (SAND8), University of Pittsburgh, PA, USA (June 2017) (Young Investigator Lecture)

Informatics Institute, University of Florida, Gainesville, FL, USA (August 2016)