Haixu Wang

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Information Burnaby, B.C., V5A 1S6 Email: haixuw@sfu.ca

Github: github.com/alex-haixuw

Website: haixu-alex.me

RESEARCH Functional data analysis, Biostatistics, Neural networks, Network analysis, Machine Interests learning, Computational neuroscience, Data science, Bayesian analysis.

EDUCATION Simon Fraser University, Burnaby, B.C., Canada

Ph.D. Candidate, Statistics, 2017–2023 (Parental leave: 2020-2021)

• Thesis: Machine Learning in Functional Data Analysis

• Supervisor: Dr. Jiguo Cao

Simon Fraser University, Burnaby, B.C., Canada

M.S., Statistics, 2015–2017

• Thesis: Modeling Neural Spike Trains with Particle Markov Chain Monte Carlo and Smoothing

• Supervisor: Dr. Jiguo Cao and Dr. Michelle Zhou

Simon Fraser University, Burnaby, B.C., Canada

B.S., Statistics, August, 2015

Publication

- Wang, H. and Cao, J., 2022, "Nonlinear Prediction for Functional Time Series", in revision for Environmetrics.
- Wang, H. and Cao, J., 2022, "pCODE: Estimating Parameters of ODE Models", in revision for *The R Journal*.
- Wang, H. and Cao, J., 2021, "Functional Nonlinear Learning", submitted to Journal of Computational and Graphical Statistics.
- Wang, H. and Cao, J., 2021, "Functional Principal Component Analysis for Multiple Variables on Different Riemannian Manifolds", in revision for *Journal of Agricultural*, Biological and Environmental Statistics.
- Wang, H. and Cao, J., 2020, "Estimating Time-varying Directed Neural Networks", Statistics and Computing, 20, 1209–1220.
- Ithurbide, M., Wang, H., Fassier, T., Li, Z., Pires, J., Larsen, T., Cao, J., Rupp, R., and Friggens, N., 2022, "Multivariate analysis of milk metabolite measures shows potential for deriving new resilience phenotypes", submitted to *Journal of Dairy Science*.

PROJECT

• Wang, H. and Cao, J., 2020, "pCODE: a R package for estimating ODE models" available on CRAN, GITHUB, and Rshiny.

INVITED CONFERENCE TALKS AND PRESENTATIONS

- Wang, H. and Cao, J., "Functional Nonlinear Learning", 2022 International Workshop on Complex Functional Data Analysis, Shanghai, China, 2022.
- Wang, H. and Cao, J., "Functional Nonlinear Learning", 2022 Annual Meeting of the Statistical Society of Canada, Online, 2022.
- Wang, H. and Cao, J., "Functional Nonlinear Learning", 2021 Canada Statistical Science Institute showcase, Online, 2021.
- Wang, H. and Cao, J., "Estimating time-varying directed neural networks", 2019 International Chinese Statistical Association conference, Tianjin, China, 2019.

TEACHING

- Simon Fraser University: Teaching Assistant 2017-2022
 - Statistics Workshop.
 - STAT 100: Chance and Data Analysis
 - STAT 201: Statistics for the Life Sciences
 - STAT 203: Introduction to Statistics for the Social Sciences
 - STAT 270: Introduction to Probability and Statistics
 - STAT 305: Introduction to Biostatistical Methods for Health Sciences
 - STAT 485: Applied Time Series Analysis
- Tianjin University: 2021 Summer
 - Online course on functional data analysis and parameter estimation of differential equations.

EMPLOYMENT

- Graduate Teaching Assistant, Simon Fraser University, 2017-Current.
- Graduate Research Assistant, Simon Fraser University, 2017-Current.
- Data Scientist Intern, Pacific Blue Cross, Burnaby, B.C., Canada. 2017–2018

AWARDS

- PhD Graduate Fellowship, Simon Fraser University, 2021-2022
- PhD Graduate Fellowship, Simon Fraser University, 2020-2021
- PhD Graduate Fellowship, Simon Fraser University, 2019-2010
- Graduate and Postdoctoral Fellowship, Simon Fraser University, 2019-2020
- PhD Graduate Fellowship, Simon Fraser University, 2018-2019
- PhD Graduate Fellowship, Simon Fraser University, 2017-2018