

RUIYANG WU

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EDUCATION

- University of Arizona**, Tucson, AZ Aug 2022
Ph.D. in Mathematics
Advisor: Ning Hao
- University of Arizona**, Tucson, AZ Dec 2020
M.S. in Statistics and Data Science
Advisor: Ning Hao
- Peking University**, Beijing, China Jul 2016
B.S. in Mathematics and Applied Mathematics

EMPLOYMENT

- New York University**, New York, NY Jun 2022-Present
Postdoctoral Associate in Biostatistics
Advisor: Yang Feng

RESEARCH INTERESTS

- Theory and Methods: High-dimensional Statistics, Statistical Machine Learning (Discriminant Analysis, Transfer Learning, Decision Tree Learning, Change-point Detection).
- Applications: Electronic Health Record Data, Neuroimaging Data.

PUBLICATIONS

Published

1. Yifan He¹, **Ruiyang Wu**¹, Yong Zhou and Yang Feng (2023). DDAC-SpAM: A Distributed Algorithm for Fitting High-dimensional Sparse Additive Models with Feature Division and Decorrelation. *Journal of the American Statistical Association*. DOI: [10.1080/01621459.2023.2225743](https://doi.org/10.1080/01621459.2023.2225743)
2. **Ruiyang Wu** and Ning Hao (2022). Quadratic Discriminant Analysis by Projection. *Journal of Multivariate Analysis*, 190, 104987. DOI: [10.1016/j.jmva.2022.104987](https://doi.org/10.1016/j.jmva.2022.104987)

Manuscripts

1. **Ruiyang Wu** and Ning Hao (2023+). Dimension Reduction for Quadratic Discriminant Analysis via

¹ Co-first authors.

Supervised Principal Component Analysis. *Manuscript available upon request.*

2. Wenbo Ouyang, **Ruiyang Wu**, Ning Hao and Hao Helen Zhang (2023+). Dynamic Supervised Principal Component Analysis for Classification. *Submitted.*

Software

- **QDAP:** Quadratic Discriminant Analysis by Projection. Available on [GitHub](#).
- **QDAPCA:** Dimension Reduction for Quadratic Discriminant Analysis via Supervised Principal Component Analysis. Available on [GitHub](#).

TEACHING

Instructor at University of Arizona

- Math 112, College Algebra Spring 2022
- Math 112, College Algebra Fall 2021
- PhD Qualifying Exam Review, Real Analysis Summer 2020

Teaching Assistant at University of Arizona

- Math 107, Exploring and Understanding Data Fall 2017 & Spring 2018
- Math 112, College Algebra Spring 2017
- Math 310, Applied Linear Algebra Fall 2016

SERVICES

- Referee Service: Journal of the American Statistical Association; Computational Statistics & Data Analysis.

PRESENTATIONS

- “Quadratic Discriminant Analysis by Projection”, 2022 ICSA China Conference, Virtual/Xi’an, China, July 2022 (Invited)
- “Quadratic Discriminant Analysis by Projection”, TRIPODS 2nd Southwest Summer Conference, Oracle, AZ, May 2019
- “Quadratic Discriminant Analysis by Projection”, ICSA 2018 Applied Statistics Symposium, New Brunswick, NJ, Jun 2018

AWARDS

- Galileo Circle Scholarship², University of Arizona Apr 2021
- Data Science Academy Fellowship, University of Arizona Nov 2020
- Galileo Circle Scholarship², University of Arizona Apr 2019

SKILLS

- Computer Programming: C, R, MATLAB, Emacs Lisp

² The Galileo Circle awards scholarships to exceptional students at College of Science, University of Arizona.

- Languages: English, Chinese
- Interests: Violin, Chess, Hiking, Contributing to Open Source