Yangjianchen Xu

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RESEARCH INTERESTS

Semi-parametric models; Survival analysis; Causal inference; High-dimensional statistics; Reinforcement learning.

EDUCATION

University of North Carolina at Chapel Hill *Aug. 2019 – May 2024 (expected)*
Ph.D. in Biostatistics *Chapel Hill, NC, USA*
Advisors: Drs. Danyu Lin and Donglin Zeng

Peking University *Sept. 2015 – July 2019*
B.S. in Statistics *Beijing, China*

PUBLICATIONS

[*equal contributions]

Refereed Journal Publications

1. **Xu Y**, Zeng D, Lin DY. (2023). Proportional rates models for multivariate panel count data. **Biometrics**, accepted. [An earlier version won the **2023 ASA Lifetime Data Science (LiDS) Section Student Paper Award** and the **2024 ENAR Distinguished Student Paper Award**]

2. Lin DY, **Xu Y**, Zeng D, Sunny SK. (2023). A Cost-Benefit Analysis of Bivalent Covid-19 Vaccines. **Journal of Biotechnology and Biomedicine** 6(4), 551–553.

3. Lin DY*, **Xu Y***, Gu Y*, Zeng D, Wheeler B, Young H, Sunny SK, Moore Z. (2023). Effects of COVID-19 vaccination and previous SARS-CoV-2 infection on Omicron infection and severe outcomes in children under 12 years of age: an observational cohort study. **The Lancet Infectious Diseases** 23(11), 1257–1265.

4. Lin DY, **Xu Y**, Gu Y, Zeng D, Sunny SK, Moore Z. (2023). Durability of bivalent boosters against Omicron subvariants. **New England Journal of Medicine** 388(19), 1818–1820.

5. Lin DY, **Xu Y**, Gu Y, Zeng D, Wheeler B, Young H, Sunny SK, Moore Z. (2023). Effectiveness of bivalent boosters against severe Omicron infection. **New England Journal of Medicine** 388(8), 764–766.

6. **Xu Y**, Zeng D, Lin DY. (2022). Marginal proportional hazards models for multivariate interval-censored data. **Biometrika** 110, 815–830.

7. Lin DY, Gu Y, **Xu Y**, Wheeler B, Young H, Sunny SK, Moore Z, Zeng D. (2022). Association of primary and booster vaccination and prior infection with SARS-CoV-2 infection and severe COVID-19 outcomes. **JAMA** 328(14), 1415–1426.

8. Lin DY, Gu Y, **Xu Y**, Zeng D, Wheeler B, Young H, Sunny SK, Moore Z. (2022). Effects of vaccination and previous infection on Omicron infections in children. **New England Journal of Medicine** 387(12), 1141–1143.

Under Review

1. Lin DY*, **Xu Y***, Gu Y, Sunny SK, Moore Z, Zeng D. (2023+). Impact of booster vaccination interval on SARS-CoV-2 infection, hospitalization, and death.
2. Paritala S, **Xu Y**, Du Y, Donahue M, Maloney P, Lin DY. (2023+). Effectiveness of Bivalent Boosters Over Nine and Half Months in Nebraska.

In Preparation

1. **Xu Y**, Zeng D, Lin DY. (2023+). Model checking techniques for the Cox proportional hazards models under interval censoring.
2. Lin DY, Du Y, **Xu Y**, Paritala S, Donahue M, Maloney P. (2023+). Effectiveness of XBB.1.5 Vaccines Against Omicron Subvariants.

AWARDS AND HONORS

Distinguished Student Paper Award *2024*
International Biometric Society, Eastern North American Region (ENAR)

Student Paper Award *2023*
Lifetime Data Science (LiDS) Section, ASA

Gillings Global Health Endowment Scholarship *2023*
Department of Biostatistics, University of North Carolina at Chapel Hill

POSCO Asia Fellowship *2017*
School of Mathematical Sciences, Peking University

Elite Undergraduate Program of Applied Mathematics and Statistics *2017*
School of Mathematical Sciences, Peking University

TEACHING ACTIVITIES

Guest Lecturer, University of North Carolina at Chapel Hill

- Study Group: Reinforcement Learning *2022 - 2023*
- Study Group: Empirical Processes and Semiparametric Inference *2021 - 2022*
- Study Group: High-Dimensional Statistics *2021*

Teaching Assistant, University of North Carolina at Chapel Hill

- BIOS 780: Theory and Methods for Survival Analysis *Fall 2023*
- BIOS 680: Introductory Survivorship Analysis *Spring 2022*
- BIOS 760: Advanced Probability and Statistical Inference (I) *Fall 2021*

Grader, University of North Carolina at Chapel Hill

- BIOS 611: Introduction to Data Science *Fall 2022*
- BIOS 735: Statistical Computing - Basic Principles and Applications *Spring 2022*
- BIOS 761: Advanced Probability and Statistical Inference (II) *Spring 2021*

PRESENTATIONS

1. "Proportional Rates Models for Multivariate Panel Count Data", Joint Statistical Meeting, Toronto, Canada, August 2023.
2. "Proportional Rates Models for Multivariate Panel Count Data", Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC, April 2023.
3. "Marginal Proportional Hazards Models for Multivariate Interval-Censored Data", ENAR 2023 Spring Meeting, Nashville, TN, March 2023.
4. "Marginal Proportional Hazards Models for Multivariate Interval-Censored Data", Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC, November 2022.

PROFESSIONAL MEMBERSHIPS

American Statistical Association (ASA)
Institute of Mathematical Statistics (IMS)
Eastern North American Region (ENAR) of International Biometric Society
International Chinese Statistical Association (ICSA)

REVIEW SERVICE

International Conference on Learning Representations (ICLR)	*2024*
Conference on Neural Information Processing Systems (NeurIPS)	*2023*
International Conference on Machine Learning (ICML)	*2023*

SOFTWARE

R packages

1. **DOVE3**: Durability of Effectiveness of Vaccination and Prior Infection

TECHNICAL SKILLS

Programming&Software: R, C++, MATLAB, Python, SAS