

# Yangjianchen Xu

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📍 1000 Novus Lane, Chapel Hill, NC 27514, USA

## RESEARCH INTERESTS

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

## EDUCATION

**University of North Carolina at Chapel Hill**

Ph.D. in Biostatistics

Advisors: Drs. Danyu Lin and Donglin Zeng

*Aug. 2019 – May 2024 (expected)*

*Chapel Hill, NC, USA*

**Peking University**

B.S. in Statistics

*Sept. 2015 – July 2019*

*Beijing, China*

## PUBLICATIONS

[\*equal contributions]

### Refereed Journal Publications

1. 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**, in press.
2. 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.
3. 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.
4. **Xu Y**, Zeng D, Lin DY. (2022). Marginal proportional hazards models for multivariate interval-censored data. **Biometrika** 110, 815–830.
5. 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.
6. 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. **Xu Y**, Zeng D, Lin DY. (2023+). Proportional rates models for multivariate panel count data. Under revision at **Biometrics**.
2. 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. Under review at **JAMA Health Forum**.

### In Preparation

1. **Xu Y**, Zeng D, Lin DY. (2023+). Model checking techniques for the Cox proportional hazards models under interval censoring.

## AWARDS AND HONORS

**Student Paper Award**

Lifetime Data Science (LiDS) Section, ASA

2023

**Gillings Global Health Endowment Scholarship**

Department of Biostatistics, University of North Carolina at Chapel Hill

2023

## TEACHING ACTIVITIES

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### 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

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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

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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

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

## SOFTWARE

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### R packages

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

## TECHNICAL SKILLS

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