# Yangjianchen Xu

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#### RESEARCH INTERESTS

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

#### **EDUCATION**

**University of North Carolina at Chapel Hill** 

Ph.D. in Biostatistics

Advisors: Drs. Danyu Lin and Donglin Zeng

**Peking University** 

**B.S.** in Statistics

Aug. 2019 – May 2024 (expected) Chapel Hill, NC, USA

Sept. 2015 - July 2019

Beijing, China

#### **PUBLICATIONS**

[\*equal contributions]

## **Refereed Journal Publications**

- 1. Xu Y, Zeng D, Lin DY. (2024). Proportional rates models for multivariate panel count data. Biometrics, in press. [An earlier version won the 2023 ASA Lifetime Data Science (LiDS) Section Student Paper Award and the 2024 ENAR Distinguished Student Paper Award
- 2. Xu Y, Zeng D, Lin DY. (2023). Marginal proportional hazards models for multivariate interval-censored data. Biometrika 110, 815-830.
- 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. Paritala S, Xu Y, Du Y, Donahue M, Maloney P, Lin DY. (2023). Effectiveness of Bivalent Boosters Over Nine and Half Months. **Journal of Biotechnology and Biomedicine**, 6(4), 585–589.
- 7. 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.
- 8. 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.

9. 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. (2024+). Impact of booster vaccination interval on SARS-CoV-2 infection, hospitalization, and death.
- 2. Lin DY, Du Y, **Xu Y**, Paritala S, Donahue M, Maloney P. (2024+). Effectiveness of XBB.1.5 Vaccines Against Omicron Subvariants.

## In Preparation

1. **Xu Y**, Zeng D, Lin DY. (2024+). Checking the Cox proportional hazards model with interval-censored data.

## **AWARDS AND HONORS**

SPH Student Travel Expendable Travel Award Department of Biostatistics, University of North Carolina at Chapel Hill	2024
Distinguished Student Paper Award International Biometric Society, Eastern North American Region (ENAR)	2024
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
Graduate Student Transportation Grant The Graduate School, University of North Carolina at Chapel Hill	2023
POSCO Asia Fellowship School of Mathematical Sciences, Peking University	2017
Elite Undergraduate Program of Applied Mathematics and Statistics School of Mathematical Sciences, Peking University	2017
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", ENAR 2024 Spring Meeting, Baltimore, USA, March 2024.
- 2. "Checking the Cox Regression Model with Interval-Censored Data", Department of Biostatistics and Data Science, UTHealth School of Public Health, Houston, USA, February 2024.
- 3. "Checking the Cox Regression Model with Interval-Censored Data", Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Canada, February 2024.
- 4. "Checking the Cox Regression Model with Interval-Censored Data", Department of Statistics, University of California, Riverside, USA, February 2024.
- 5. "Proportional Rates Models for Multivariate Panel Count Data", Joint Statistical Meeting, Toronto, Canada, August 2023.
- 6. "Proportional Rates Models for Multivariate Panel Count Data", Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, USA, April 2023.
- 7. "Marginal Proportional Hazards Models for Multivariate Interval-Censored Data", ENAR 2023 Spring Meeting, Nashville, USA, March 2023.
- 8. "Marginal Proportional Hazards Models for Multivariate Interval-Censored Data", Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, USA, 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)

Conference on Neural Information Processing Systems (NeurIPS)

International Conference on Machine Learning (ICML)

2023

2024

#### **SOFTWARE**

## R packages

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

#### TECHNICAL SKILLS

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