

## Chanhwa Lee

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CONTACT INFORMATION	135 Dauer Drive McGavran-Greenberg Hall Chapel Hill, NC 27599	chanhwa@email.unc.edu     
EDUCATION	<b>University of North Carolina at Chapel Hill</b> , Chapel Hill, NC	
	Ph.D., Biostatistics	Expected May 2025
	<ul style="list-style-type: none"><li>• Dissertation: <i>Causal Inference under Interference and Nonparametric Efficient Estimation</i></li><li>• Advisor: <a href="#">Dr. Michael G. Hudgens</a> &amp; <a href="#">Dr. Donglin Zeng</a></li></ul>	
	<b>Seoul National University</b> , Seoul, Korea	
	B.S., Statistics and Mathematics (double major), summa cum laude	Aug 2020
	<ul style="list-style-type: none"><li>• GPA: 4.06 / 4.3</li></ul>	
RESEARCH INTERESTS	Causal Inference, Precision Medicine, Machine Learning, Semiparametric Efficient Estimation	
PROFESSIONAL EXPERIENCE	<b>Machine Learning Engineer Intern</b> Apple Inc.	May 2024 - Aug 2024 Cupertino, CA
	<ul style="list-style-type: none"><li>• Analyzed Apple applications user data and built state-of-the-art content recommender systems to optimize user experience.</li></ul>	
	<b>Research Statistics Intern</b> GlaxoSmithKline (GSK)	May 2023 - Aug 2023 Philadelphia, PA
	<ul style="list-style-type: none"><li>• Built high dimensional multi-omics ensemble ML prediction models to identify biomarkers related to cancer cell drug sensitivity.</li></ul>	
	<b>Graduate Research Assistant</b> Center for AIDS Research, UNC Chapel Hill	Jan 2022 - Present Chapel Hill, NC
	<ul style="list-style-type: none"><li>• Wrote statistical analysis plans for biomedical research grants and provided statistical data analysis.</li></ul>	
	<b>Journal Referee</b>	
	<ul style="list-style-type: none"><li>• Journal of Royal Statistical Society: Series B</li><li>• Journal of the International AIDS Society</li></ul>	
	<b>Undergraduate Research Assistant</b> Biostatistics and Bioinformatics Lab Seoul National University	Mar 2019 - Dec 2019 Seoul, Korea
HONORS AND AWARDS	<b>Tom Ten Have Award Honorable Mention &amp; Travel Award</b> American Causal Inference Conference 2024	May 2024
	<b>Best Poster Award &amp; Early Career Award</b> Duke Industry Statistics Symposium 2024	Mar 2024
	<b>Travel Award, 2024 Winter Workshop on Causal Inference</b> Department of Statistics, University of Florida	Jan 2024
	<b>Travel Award, Extending Inferences to a New Target Population Workshop</b> ICERM at Brown University	Nov 2023
	<b>1<sup>st</sup> Prize, Doctoral Comprehensive Written Exam (Theory)</b> Department of Biostatistics, UNC Chapel Hill	Aug 2021

<b>Doctoral Study Abroad Program Fellowship (\$65K)</b> Korea Foundation for Advanced Studies	2020 – 2025
<b>Silver Prize, 38<sup>th</sup> University Student Contest of Mathematics</b> Korean Mathematical Society	Spring 2019
<b>Dean’s List</b> College of Natural Sciences, Seoul National University	2014, 2015, 2019
<b>Korean Presidential Science Scholarship (\$44K)</b> Korea Student Aid Foundation	2014 – 2020
<b>Bronze Prize, 20<sup>th</sup> Humantech Paper Award</b> Samsung Electronics	Feb 2014
<b>2<sup>nd</sup> Prize, 26<sup>th</sup> Final Korean Mathematical Olympiad</b> Korean Mathematical Society	2013
<b>Silver Prize, 26<sup>th</sup> Korean Mathematical Olympiad</b> Korean Mathematical Society	2012

#### PUBLICATIONS

1. **Lee, C.**, Zeng, D., & Hudgens, M. G. (2024). Efficient Nonparametric Estimation of Stochastic Policy Effects with Clustered Interference. *Journal of the American Statistical Association*. In Press. [\[link\]](#) [\[code\]](#)
2. Kilpatrick, K., **Lee, C.**, & Hudgens, M. G. (2024). G-Formula for Observational Studies with Stratified Interference, with Application to Bed Net Use on Malaria. *Statistics in Medicine*, 43(15), 2853-2868.
3. Chen, B., **Lee, C.\***, Tapia, A., Reiner, A., Tang, H., Kooperberg, C., Li, Y., & Raffield, L. (2024). Proteome-Wide Association Study Using Cis and Trans Variants and Applied to Blood Cell and Lipid-Related Traits in the Women’s Health Initiative Study. *Genetic Epidemiology*, 48, 310-323. \*Co-first author. [\[link\]](#)
4. Li, L., **Lee, C.**, Cruz, D. F., Krovi, S. A., Hudgens, M. G., Cottrell, M. L., & Johnson, L. M. (2022). Reservoir-Style Polymeric Drug Delivery Systems: Empirical and Predictive Models for Implant Design. *Pharmaceuticals*, 15(10), 1226. [\[link\]](#)

#### MANUSCRIPTS SUBMITTED (PREPRINTS)

1. **Lee, C.**, Zeng, D., & Hudgens, M. G. (2024+). Nonparametric Causal Survival Analysis under Clustered Interference. *arXiv*, 2409.13190. Under Review at Journal of the Royal Statistical Society Series B. [\[preprint\]](#) [\[code\]](#)
2. Shook-Sa, B., Zivich, P., **Lee, C.**, ..., & Cole, S. (2024+). Double Robust Variance Estimation. *arXiv*, 2404.16166. **Under Revision at Biometrics.** [\[preprint\]](#)
3. Sheahan, T. P., Laura J. Stevens, L. J., Lakshmanane, P., Krajewski, T. J., **Lee, C.**, ..., & Fischer, W. A. (2024+). The Antiviral Mechanism of Action of Molnupiravir in Humans with COVID-19. *medrxiv*, 2023.11.21.23298766. **Under Revision at Nature Communications.** [\[preprint\]](#)

#### TALKS AND PRESENTATIONS

- “Nonparametric Causal Survival Analysis under Clustered Interference”  
Oral, US-Korea Conference on Science, Technology, and Entrepreneurship 2024,  
San Francisco, CA  
**Travel Award** Aug 2024

	<ul style="list-style-type: none"> <li>• “Nonparametric Causal Survival Analysis under Clustered Interference” Oral, Joint Statistical Meeting 2024, Portland, OR Aug 2024</li> <li>• “Nonparametric Causal Survival Analysis under Clustered Interference” Poster, American Causal Inference Conference 2024, Seattle, WA May 2024 <b>Tom Ten Have Award Honorable Mention</b></li> <li>• “Nonparametric Causal Survival Analysis under Clustered Interference” Poster, Duke Industry Statistics Symposium 2024, Durham, NC Mar 2024 <b>Best Poster Award</b></li> <li>• “Nonparametric Causal Survival Analysis under Clustered Interference” Poster, 2024 Winter Workshop in Causal Inference, Gainesville, FL Jan 2024 <b>Travel Award</b></li> <li>• “Efficient Nonparametric Estimation of Stochastic Policy Effects with Clustered Interference” Seminar Talk, <a href="#">Online Causal Inference Seminar Fall 2023</a> [video] Sep 2023</li> <li>• “Efficient Nonparametric Estimation of Stochastic Policy Effects with Clustered Interference” Oral, Joint Statistical Meeting 2023, Toronto, CA Aug 2023</li> <li>• “Efficient Nonparametric Estimator of Incremental Propensity Score Effect with Clustered Interference” Oral, Eastern North American Region International Biometrics Society Meeting 2023, Nashville, TN Mar 2023</li> </ul>
TEACHING ACTIVITIES	<p><b>Teaching Assistant at University of North Carolina at Chapel Hill</b> Causal Inference (~40 students) Spring 2024 Basics of Probability and Statistical Inference (~60 students) Spring 2023</p> <p><b>Teaching Assistant at Seoul National University</b> Mathematical Statistics II (~40 students) Fall 2019 Mathematical Statistics I (~40 students) Spring 2019</p>
PROFESSIONAL MEMBERSHIPS	<p>American Statistical Association Eastern North American Region, International Biometric Society Korean-American Scientists and Engineers Association</p>
SKILLS	R, Python, Docker, Git, SAS, Bash, SQL, $\text{\LaTeX}$
DATE OF PREPARATION	October 30, 2024