Chanwoo Lee

CONTACT INFORMATION

Department of Statistics
1335A Medical Science Center
1300 University Avenue
Madison, WI 53706

Phone: (608) 556-9906
E-mail: chanwoo.lee@wisc.edu
Webpage: https://chanwoost.github.io

EDUCATION

University of Wisconsin-Madison 2018 - Present
Ph.D. Candidate in Statistics
Ph.D. minor in Computer Science
- Advisor: Miaoyan Wang
- Committee: Stephen Wright (UW-Madison, CS), Kangwook Lee (UW-Madison, ECE), Rebecca Willet (UChicago, Stat), Anru Zhang (Duke, Biostat).

Seoul National University 2012 - 2018
B.S. in Mathematical Science
B.S. in Statistics
- Summa Cum Laude

RESEARCH INTERESTS

Statistical machine learning, matrix/tensor data analysis, network analysis

PUBLICATIONS

C. Lee and M. Wang. Statistical and computational rates in high rank tensor estimation. Under review.

C. Lee, L. Li, H. Zhang, and M. Wang. Nonparametric trace regression in high dimensions via sign series representation. Under review by *Annals of Statistics*.

C. Lee and M. Wang. Smooth tensor estimation with unknown permutations. Under major revision by *Journal of the American Statistical Association*.
- This work wins **NESS Student Research Awards**, 2022
- This work wins **IMS Hannan Graduate Student Travel Award**, 2022.
- Part of the work is selected as **Oral Presentation** into *NeurIPS* 2021 Workshop on Quantum Tensor Networks in Machine Learning.

C. Lee and M. Wang. Beyond the Signs: Nonparametric tensor completion via sign series. *Advances in Neural Information Processing Systems 34 (NeurIPS)*, 2021.

J. Hu, **C. Lee** and M. Wang. Generalized Tensor Decomposition with Features on Multiple Modes. *Journal of Computational and Graphical Statistics* :1-15, 2021.
- This work wins **Best Student Paper Award** from the Statistical Computing and Graphics Section of American Statistical Association (ASA), 2021.
- Part of the work is accepted into *NeurIPS* 2020 Second Workshop on Machine Learning and the Physical Sciences.

C. Lee and M. Wang. Tensor denoising and completion based on ordinal observation. *Proceedings of International Conference on Machine Learning (ICML),* PMLR 119:5778-5788, 2020.

TALKS& CONFERENCE PRESENTATIONS

Smooth tensor estimation with unknown permutation
- Joint Statistical Meetings (JSM), August 2022
- International Conference on Econometrics and Statistics (EcoSta), June 2022
- New England Statistical Society (NESS) symposium, May 2022
- Neural Information Processing Systems 34 (NeurIPS) Workshop on Quantum Tensor Networks in Machine Learning, December 2021
- Institute for Foundation of Data Science (IFDS) Summer School 2021 poster session, July 2021

Beyond the Signs: Nonparametric tensor completion via sign series
- New England Statistical Society (NESS) symposium, May 2022
- Neural Information Processing Systems 34 (NeurIPS), December 2021

Generalized Tensor Decomposition with features on multiple modes
- Neural Information Processing Systems 33 (NeurIPS) Workshop on Machine Learning and the Physical Sciences, December 2020

Nonparametric learning with matrix-valued predictors in high dimensions
- Institute for Foundation of Data Science (IFDS) Kickoff 2020 poster session, September 2020

Tensor denoising and completion based on ordinal observations
- Institute for Foundation of Data Science (IFDS) brown-bag at UW-Madison, March 2020
- International Conference on Machine Learning (ICML), July 2020
- Bernoulli-IMS One World Symposium, August 2020

AWARDS& SCHOLARSHIPS

Honorable Mention Graduate Course TA Award — 2022
Department of Statistics, University of Wisconsin-Madison

NESS Student Research Awards — 2022
New England Statistical Society (NESS)

IMS Hannan Graduate Student Travel Award — 2022
Institute of Mathematical Statistics (IMS)

1st prize, NIMS-SKKU Big Data Summer School Project — 2016
National Institute for Mathematical Sciences - Sungkyunkwan University

Seoul National University Alumni Scholarship — 2016 - 2017
Seoul National University Alumni Association

National Scholarship For Science & Engineering — 2012 - 2017
Korea Student Aid Foundation

WORK EXPERIENCE

Quantitative Research Summer Intern, Citadel (New York) — 2022

Summer Research Assistant, Institude for Foundation of Data Science (IFDS) — 2021

Undergraduate Research Assistant, Seoul National University — 2016 - 2018

Republic of Korea Air Force — 2013 - 2015

COMPUTING

Software
- `TensorComplete`: An `R` package for tensor noise reduction and completion. Available on `CRAN`.
- `TraceAssist`: An `R` package for fitting nonparametric matrix trace regression model. Available on `CRAN`.
- `SmoothTensor`: An `R` package for estimating a smooth tensor an unknown permutation. Available on `CRAN`.

PROFESSIONAL SERVICE

Reviewer for* IEEE Transactions on Information Theory (1), International Conference of Machine Learning (5), Neural Information Processing Systems (1), Electronic Journal of Statistics (1), Journal of Machine Learning Research (1), Journal of the American Statistical Association (2), Biometrics (1), Journal of the Royal Statistical Society: Series B (1).

*Numbers in parenthesis indicate the number of papers reviewed