Chanwoo Lee

CONTACT INFORMATION	Department of Statistics 1205A 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 with minor in Computer Science
    -Advisor: Miaoyan Wang

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. Smooth tensor estimation with unknown permutations. Submitted, 2021.
(Part of the work is selected as **oral presentation** into *NeurIPS* 2021 Workshop on Quantum Tensor Networks in Machine Learning).

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*, 2021.

C. Lee, and M. Wang. Beyond the Signs: Nonparametric tensor completion via sign series. *Advances in Neural Information Processing Systems 35 (NeurIPS)*, 2021.

J. Hu, C. Lee and M. Wang. Generalized Tensor Decomposition with Features on Multiple Modes. *Journal of Computational and Graphical Statistics (JCGS)*, 2021.
(This work wins **Best Student Paper Award** from the Statistical Computing and Graphics Section of American Statistical Association (ASA), 2021).

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

TALKS& CONFERENCE PRESENTATIONS

Estimating smooth tensors with unknown permutation
- at Institute for Foundation of Data Science (IFDS) Summer School 2021 poster session, July 2021

Generalized Tensor Decomposition with features on multiple modes
- at Advances in 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
- at Institute for Foundation of Data Science (IFDS) Kickoff 2020 poster session, September 2020

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

WORK EXPERIENCE	Graduate Research Assistant, University of Wisconsin-Madison $\quad$ 2019 - Present
	$\quad$ Researching statistical machine learning with a particular focus on matrix/tensor data analysis.
	$\quad$ Advisor: Prof. Miaoyan Wang.
	Summer Research Assistant, Institude for Foundation of Data Science (IFDS) $\quad$ 2021
	$\quad$ Researched hypergraph and hypergraphon estimation.
	$\quad$ Faculty supervisors: Miaoyan Wang (UW-Madison, Stat), Kangwook Lee (UW-Madison, ECE), Rebecca Willet (UChicago, Stat).
	Undergraduate Research Assistant, Seoul National University $\quad$ 2016 - 2018
	$\quad$ Implemented topic modeling algorithm based on Latent Dirichlet Allocation.
	$\quad$ Worked on boundary detection and image classification.
	$\quad$ Advisor: Prof. Byeong U. Park, Prof. Myungjoo Kang.
	Republic of Korea Air Force $\quad$ 2013 - 2015
	$\quad$ Operated aero surveillance technician
AWARDS& SCHOLARSHIPS	Dean's List $\quad$ 2015 - 2017
	1st prize, NIMS-SKKU Big Data Summer School Project $\quad$ 2016
	$\quad$ National Institute for Mathematical Sciences - Sungkyunkwan University
	Seoul National University Alumni Scholarship $\quad$ 2016 - 2017
	$\quad$ Seoul National University Alumni Association
	National Scholarship For Science & Engineering $\quad$ 2012 - 2017
	$\quad$ Korea Student Aid Foundation

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`.

Languages
- `R, Python, Matlab`

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).