Miaoyan Wang
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(a) Professional preparation

Fudan University	China	Mathematics	B.S. 2010
		Computer Science	2006-2007
University of Chicago	USA	Statistics	PhD, 2015
University of Pennsylvania	USA	Mathematics and Biology	Simons Math+X Postdoc, 2017
UC Berkeley	USA	Computer Science	Postdoc 2018

(b) Appointment

2018 -- Present, Assistant Professor, Department of Statistics, University of Wisconsin–Madison.

2019 -- Present, Affiliated faculty at the Institute for Foundations of Data Science (IFDS), a four-university research initiative partnered with Universities of Washington, California Santa Cruz, and Chicago.

2021.3 -- 2021.6. Visiting core participant at the long-term program at Institute for Pure and Applied Mathematics (IPAM) at UCLA.

(c) Products

(i) Five Recent Publications Most Closely Related to the Proposed Projects.

1. J. Hu, C. Lee, and **M. Wang**. Supervised tensor decomposition with interactive side information. Advances in Neural Information Processing Systems (NeurIPS) 33 Workshop on Machine Learning and the Physical Sciences. (2020). https://arxiv.org/abs/1910.09499

This work wins me (as advisor) ***2021 Best Student Paper Award*** *from the Statistical Computing and Graphics Section of American Statistical Association.*

2. **M. Wang**, F. Roux, C. Bartoli, C. H.-Chauveau, C. Meyer, H. Lee, D. Roby, M. S. McPeek, and J. Bergelson. Two-Way Mixed-Effects Methods for Joint Association Analyses Using Both Host and Pathogen Genomes. Proceedings of the National Academy of Science (direct submission), Vol. 115 (24), E5440-E5449, (2018). https://www.pnas.org/content/115/24/E5440

3. R. Han, Y. Luo, **M. Wang**, and A. R Zhang, Exact clustering in tensor block model: Statistical optimality and computational limit. (2020). https://arxiv.org/abs/2012.09996.

This work wins me (as advisor) ***2021 Best Student Paper Award*** *from the Statistical Learning and Data Science Section of the American Statistical Association.*

4. **M. Wang,** J. Fischer, and Y. S. Song. Three-way Clustering of Multi-tissue Gene Expression Data Using Semi-Nonnegative Tensor Decomposition. Annals of Applied Statistics. Vol. 13, No. 2, 1103-1127, (2019). https://doi.org/10.1214/18-AOAS1228

5 . **M. Wang**, J. Jakobsdottir, A. V. Smith, and M. S. McPeek. G-STRATEGY: Optimal Selection of Individuals for Sequencing in Genetic Association Studies. Genetic Epidemiology, Vol. 40, No. 6, 446--60 (2016). https://doi.org/10.1002/gepi.21982. *Highlighted as* ***Editor's Pick*** *Paper of this issue.*

This work wins me (as lead author) ***Charles J. Epstein Trainee Award*** *from American Society of Human Genetics and* ***Williams Award*** *from International Society of Genetic Epidemiology.*

(ii) Other Significant Products, Whether or Not Related to the Proposed Project

1. C. Lee and **M. Wang.** Tensor denoising and completion based on ordinal observations. Proceedings of Machine Learning Research (ICML issues). Vol 119: 5778-5788, (2020). http://proceedings.mlr.press/v119/lee20i.html

2. **M. Wang** and L. Li. Learning from Binary Multiway Data: Probabilistic Tensor Decomposition and Its Statistical Optimality. Journal of Machine Learning Research. 21 No. 154, 1-38, (2020). https://www.jmlr.org/papers/volume21/18-766/18-766.pdf

3. **M. Wang** and Y. Zeng. Multiway clustering via tensor block models. Advances in Neural Information Processing Systems 32 (NeurIPS), 715-725, (2019).

4 . **M. Wang**, K. Dao Duc, J. Fischer, and Y.S. Song. Operator Norm Inequalities Between Tensor Unfoldings on the Partition Lattice. Linear Algebra and its Applications, Vol 520, 44-66, (2017). https://doi.org/10.1016/j.laa.2017.01.017

5 . **M. Wang** and Y. S. Song. Tensor Decomposition via Two-Mode Higher-Order SVD (HOSVD). Proceeding of Machine Learning Research (AISTATS issues), Vol 54, 614-622, (2017). http://proceedings.mlr.press/v54/wang17a.html

(d) Synergistic Activities

1. Member in Women in Probability, Institute of Mathematical Statistics, Society for Industrial and Applied Mathematics, American Society of Human Genetics. 2014 – now.

2. Organizer for European Society for Evolution Biology workshop, International Conference on Frontier of Data Science, 2019.

3. Statistical Consultant. Provided statistical support for the larger university community at the University of Chicago. 2012-2015.

4. Featured faculty for mentoring female students in STEM files. Media coverage in the article ``Women in STEM: 5 Thoughtful Ways to Recruit and Retain Them'' by Course Hero.

5. Madison Teaching and Learning Excellence (MTLE) Fellow, UW-Madison, 2019 -2020.