Wayne Yu Wang

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Education

2022 (expected)	Statistics, University of Michigan (Advisors: Profs. A.O.Hero and Y.Chen)	Ph.D.
2018	Statistics, University of British Columbia (Advisors: Profs. J.V.Zidek and N.D.Le)	M.Sc.
2016	Actuarial Science, Simon Fraser University	B.Sc.

Research Interests

High-dimensional inference; Graphical models; (approximate) Bayesian inference; Generative models for spatio-temporal processes; Applications in natural sciences

Publications

Wang, Y., Le, N. D., & Zidek, J. V. (2020). "Approximately optimal spatial design: How good is it?" *Spatial Statistics*, 100409.

Wang, Y., Jang, B., & Hero, A. (2020). "The sylvester graphical lasso (syglasso)." *Proceedings of the Twenty Third International Conference on Artificial Intelligence and Statistics*, *108*, 1943–1953.

Casquilho-Resende, C., Le, N., Zidek, J., & Wang, Y. (2018). "Design of monitoring networks using k-determinantal point processes." *Environmetrics*, *29*(1), e2483.

Submitted Papers

Wang, Y., & Hero, A. (2020). "A proximal alternating linearized minimization method for tensor graphical models." *Proceedings of the Twenty Fourth International Conference on Artificial Intelligence and Statistics*.

Wang, Y., Hougen, C., Oselio, B., Dempsey, W., & Hero, A. (2020). "A geometry-driven longitudinal topic model." *Harvard Data Science Review*.

Wang, Y., Le, N. D., & Zidek, J. V. (2019). "Approximately optimal subset selection for statistical design and modelling." *Journal of Statistical Computation and Simulation*.

Presentations

Contributed presentations

Wang, Y. (2020). "Sylvester graphical models for complex spatio-temporal processes." *The 4th annual review for the ARO-MURI: Adaptive Exploitation of Non-Commutative Multimodal Information Structure, Ann Arbor, MI.*

Wang, Y. (2020). "The sylvester graphical lasso (syglasso)." *Joint Statistical Meetings (JSM) 2020, Philadelphia, PA*.

Wang, Y. (2020). "The sylvester graphical lasso (syglasso)." *AISTATS 2020, Palermo, Italy*.

Wang, Y. (2018). "Uncertainty quantification for minimum and maximum temperature forecast." *Joint Statistical Meetings (JSM) 2018, Vancouver, Canada*.

Wang, Y. (2018). "Determinantal point processes with application to spatial design." *The 46th Annual Meeting of the Statistical Society of Canada (SSC) 2018, Montreal, Canada*.

Wang, Y. (2017). "Determinantal point processes with application to spatial design." *SFU/UBC Joint Statistics Seminar*.

Invited presentations

Wang, Y. (2020). "A scalable tool for longitudinal twitter analysis: Understanding the impact of covid-19 on public discourse." *COVID-19 Data Science Research Special Webinar Series, Michigan Institute for Data Science, Ann Arbor, MI*.

Teaching

Teaching Assistant

University of Michigan | Department of Statistics

2020	STATS 551: *Bayesian Modelling and Computation* *Description:* Graduate-level introduction to Bayesian inference. *Course materials:* ywa136.github.io/teaching/stats551_2020Winter
2019	STATS 306: *Introduction to Statistical Computing* *Description:* Senior undergraduate-level introductory statistical computing course based on the R programming language. *Course materials:* https://ywa136.github.io/teaching/stats306_2019Fall
2019	STATS 426: *Introduction to Theoretical Statistics* *Description:* Senior undergraduate-level introduction to theoretical statistics.
2018	STATS 250: *Introduction to Statistics and Data Analysis* *Description:* Junior undergraduate-level course in applied statistical methodology for data analysis.

University of British Columbia | Department of Statistics

2017	STATS 251: *Introductory Probability and Statistics* *Description:* Introductory statistics and probability course for junior undergraduates major in statstics.
2016	STATS 200: *Elementary Statistics for Applications* *Description:* Introductory statistics course for junior undergraduates major in arts and social sciences.

Awards, Fellowships, and Honors

2018 - 2019	Department of Statistics Fellowship, UMich
2018	International Doctoral Fellowship, UBC. (Declined; **Five year $35,000 per year fellowship awarded to the top 15 admitted international doctoral students across the university.**)
2017	Travel Award for CBMS Regional Conference on Spatial Statistics.
2016	Statistics & Actuarial Science Endowment Award: Academic Merit, SFU. (**Awarded to undergraduate student with the best academic performance across the department in the academic year.**)
2015	VP Research - Undergraduate Student Research Award, SFU. (**Awarded for the research project "Robust program for automated statistical imputation of the Alzheimer's Disease Neuroimaging Initiative (ADNI) data".**)
2014	April Allen Memorial Undergraduate Scholarship, SFU.
2014	President's Honour List, SFU.
2013 - 2016	Dean's Honour List, SFU.

Services

Reviewer for AISTATS 2021, PLOS ONE

Technical Skills

Programming Languages: Python, JAVA, R, Julia, MATLAB • **Tools:** Hadoop, Spark • **Cloud Services:** AWS, GCP