

Summer Readings

- Selected Faculty Publications 2020 - 2021

Department of Statistics, Columbia University

July 2021

(Prepared by Disa Yu and Tian Zheng)

1. Avella-Medina, M. (2021). Privacy-preserving parametric inference: a case for robust statistics. *Journal of the American Statistical Association*, 116(534), 969-983.
<https://www.tandfonline.com/doi/abs/10.1080/01621459.2019.1700130>
2. Wang, Y., & Blei, D. (2021, July). A Proxy Variable View of Shared Confounding. In *International Conference on Machine Learning* (pp. 10697-10707). PMLR.
<http://proceedings.mlr.press/v139/wang21c.html>
3. Davis, R. A., Fokianos, K., Holan, S. H., Joe, H., Livsey, J., Lund, R., ... & Ravishanker, N. (2021). Count time series: A methodological review. *Journal of the American Statistical Association*, 1-15.
<https://www.tandfonline.com/doi/full/10.1080/01621459.2021.1904957>
4. Chong, C. (2020). High-frequency analysis of parabolic stochastic PDEs. *The Annals of Statistics*, 48(2), 1143-1167.
<https://projecteuclid.org/journals/annals-of-statistics/volume-48/issue-2/High-frequency-analysis-of-parabolic-stochastic-PDEs/10.1214/19-AOS1841.short>
5. Gordon-Rodriguez, E., Loaiza-Ganem, G., & Cunningham, J. (2020, November). The continuous categorical: a novel simplex-valued exponential family. In *International Conference on Machine Learning* (pp. 3637-3647). PMLR.
<http://proceedings.mlr.press/v119/gordon-rodriguez20a.html>
6. Pang, G., Alemanyeh, D., de la Peña, V., & Klass, M. J. (2020). On the bias and variance of odds ratio, relative risk and false discovery proportion. *Communications in Statistics-Theory and Methods*, 1-31.
<https://www.tandfonline.com/doi/abs/10.1080/03610926.2020.1867744>
7. van de Schoot, R., Depaoli, S., King, R., Kramer, B., Märtens, K., Tadesse, M. G., ... & Yau, C. (2021). Bayesian statistics and modelling. *Nature Reviews Methods Primers*, 1(1), 1-26.
<https://www.nature.com/articles/s43586-020-00001-2>
8. Gu, Y., & Xu, G. (2021). A Joint MLE Approach to Large-Scale Structured Latent Attribute Analysis. *Journal of the American Statistical Association*, (just-accepted), 1-39.
<https://www.tandfonline.com/doi/abs/10.1080/01621459.2021.1955689>

9. Suk, J., & Kpotufe, S. (2021, March). Self-Tuning Bandits over Unknown Covariate-Shifts. In *Algorithmic Learning Theory* (pp. 1114-1156). PMLR.
<http://proceedings.mlr.press/v132/suk21a.html>
10. Li, H., Aue, A., Paul, D., Peng, J., & Wang, P. (2020). An adaptable generalization of Hotelling's T^2 test in high dimension. *The Annals of Statistics*, 48(3), 1815-1847.
<https://projecteuclid.org/journals/annals-of-statistics/volume-48/issue-3/An-adaptable-generalization-of-Hotellings-T2-test-in-high-dimension/10.1214/19-AOS1869.short>
11. Lo, S. H., & Yin, Y. (2021). An Interaction-based Convolutional Neural Network (ICNN) Towards Better Understanding of COVID-19 X-ray Images. arXiv preprint arXiv:2106.06911.
<https://arxiv.org/abs/2106.06911>
12. Tang, X., Wang, Z., He, Q., Liu, J., & Ying, Z. (2020). Latent feature extraction for process data via multidimensional scaling. *psychometrika*, 85(2), 378-397.
<https://link.springer.com/article/10.1007/s11336-020-09708-3>
13. Ghosal, P., & Mukherjee, S. (2020). Joint estimation of parameters in Ising model. *The Annals of Statistics*, 48(2), 785-810.
<https://projecteuclid.org/journals/annals-of-statistics/volume-48/issue-2/Joint-estimation-of-parameters-in-Ising-model/10.1214/19-AOS1822.short>
14. Nutz, M., San Martin, J., & Tan, X. (2020). Convergence to the mean-field game limit: a case study. *The Annals of Applied Probability*, 30(1), 259-286.
<https://projecteuclid.org/journals/annals-of-applied-probability/volume-30/issue-1/Convergence-to-the-mean-field-game-limit--A-case/10.1214/19-AAP1501.short>
15. Pakman, A., Wang, Y., Mitelut, C., Lee, J., & Paninski, L. (2020, November). Neural clustering processes. In *International Conference on Machine Learning* (pp. 7455-7465). PMLR.
<http://proceedings.mlr.press/v119/pakman20a.html>
16. Jarrow, R., & Protter, P. (2020). Credit Risk, Liquidity, and Bubbles. *International Review of Finance*, 20(3), 737-746.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/irfi.12239>
17. Rush, C. (2020, June). An asymptotic rate for the LASSO loss. In *International Conference on Artificial Intelligence and Statistics* (pp. 3664-3673). PMLR.
<http://proceedings.mlr.press/v108/rush20a.html>
18. Deb, N., & Sen, B. (2021). Multivariate rank-based distribution-free nonparametric testing using measure transportation. *Journal of the American Statistical Association*, (just-accepted), 1-45.

<https://www.tandfonline.com/doi/abs/10.1080/01621459.2021.1923508>

19. Gonon, L., Muhle-Karbe, J., & Shi, X. (2021). Asset pricing with general transaction costs: Theory and numerics. *Mathematical Finance*, 31(2), 595-648.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/mafi.12297>
20. Sobel, M. E., & Lindquist, M. A. (2020). Estimating causal effects in studies of human brain function: New models, methods and estimands. *The annals of applied statistics*, 14(1), 452.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8078549/>
21. Tavaré, S. (2020). A note on the Screaming Toes game. arXiv preprint arXiv:2006.04805.
<https://arxiv.org/abs/2006.04805>
22. Aue, A., & Van Delft, A. (2020). Testing for stationarity of functional time series in the frequency domain. *The Annals of Statistics*, 48(5), 2505-2547.
<https://projecteuclid.org/journals/annals-of-statistics/volume-48/issue-5/Testing-for-stationarity-of-functional-time-series-in-the-frequency/10.1214/19-AOS1895.short>
23. Tagasovska, N., Chavez-Demoulin, V., & Vatter, T. (2020, November). Distinguishing cause from effect using quantiles: Bivariate quantile causal discovery. In *International Conference on Machine Learning* (pp. 9311-9323). PMLR.
<http://proceedings.mlr.press/v119/tagasovska20a.html>
24. Obłój, J., & Wiesel, J. (2021). Robust estimation of superhedging prices. *The Annals of Statistics*, 49(1), 508-530.
<https://projecteuclid.org/journals/annals-of-statistics/volume-49/issue-1/Robust-estimation-of-superhedging-prices/10.1214/20-AOS1966.short>
25. Li, X., Chen, Y., Chen, X., Liu, J., & Ying, Z. (2021). Optimal stopping and worker selection in crowdsourcing: An adaptive sequential probability ratio test framework. *Statistica Sinica*, 31(1), 519-546.
<http://eprints.lse.ac.uk/100873/>
26. Wang, S., & Yuan, M. (2021). Revisiting colocalization via optimal transport. *Nature Computational Science*, 1(3), 177-178.
<https://www.nature.com/articles/s43588-021-00046-7>
27. Tang, C., Uriarte, M., Jin, H., C Morton, D., & Zheng, T. (2021). Large-scale, image-based tree species mapping in a tropical forest using artificial perceptual learning. *Methods in Ecology and Evolution*, 12(4), 608-618.
<https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/2041-210X.13549>