

Lan Luo

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Education

2016 - 2020	UNIVERSITY OF MICHIGAN Ph.D. Biostatistics (Advisor: Peter X.K. Song)	Ann Arbor, MI
2014 - 2016	UNIVERSITY OF MICHIGAN M.S. Biostatistics	Ann Arbor, MI
2009 - 2013	HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY B.S. Biology	Wuhan, China

Research Experience

2020 - present	Assistant Professor Department of Statistics and Actuarial Science College of Liberal Arts and Science University of Iowa, Iowa City, IA	
2019	Data Scientist Intern , <i>Online A/B Testing with Valid Confidence Intervals</i> Google LLC	Mountain View, CA
2017-2019	Research Assistant , <i>Black Women's Wellness Project</i> Department of Health Behavior and Health Education, University of Michigan Ann Arbor, MI	
2015-2016	Research Assistant , <i>Effects of Contamination on DNA Sequencing Data</i> Department of Biostatistics, University of Michigan	Ann Arbor, MI
2015	CPHG Summer Intern , <i>Solving Constrained Optimization Problems via Alternating Direction Method of Multipliers</i> Department of Biostatistics, University of Michigan	Ann Arbor, MI

Teaching Experience

2020	Primary Instructor , <i>Mathematical Statistics I</i> Department of Statistics & Actuarial Science, University of Iowa Iowa City, IA
2021	Primary Instructor , <i>Mathematical Statistics II</i> Department of Statistics & Actuarial Science, University of Iowa Iowa City, IA

Publications

1. **Luo, L.** and Song, P.X.K. (2021) Multivariate online regression analysis with heterogeneous streaming data. *The Canadian Journal of Statistics* (accepted).
2. **Luo, L.** and Song, P.X.K. (2019). Renewable estimation and incremental inference in generalised linear models with streaming datasets. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, **82**, Part1, 69–97. An earlier version of this paper “real-time regression analysis of streaming health datasets” won the 2019 ENAR Distinguished Student Paper Award.
3. **Luo, L.**, She, X.C., Cao, J.X., Zhang, Y.L., Li, Y.J., Song, P.X.K. (2019). Detection and prediction of ovulation time from body temperature measured by YONO earbud. *IEEE Transactions on Biomedical Engineering*, **67**(2): 512–522.
4. Shen, R., **Luo, L.** and Jiang, H. (2017). Identification of gene pairs through penalized regression subject to constraints. *BMC Bioinformatics*, **18**: 466.
5. Yang, Y., **Luo, L.**, Xu, J.X. et al. (2013). Novel EDA p.Ile260Ser mutation linked to non-syndromic hypodontia. *Journal of Dental Research*, **92**: 500–506.

Manuscripts In Revision

6. **Luo, L.** and Song, P.X.K. (2020+). Real-time regression analysis of streaming clustered data with possible abnormal data batches. *Journal of the American Statistical Association (Theory & Methods)* (invited revision).

Manuscripts Submitted or In Preparation

7. Hector, E.C., **Luo, L.** and Song, P.X.K. Parallel-and-stream accelerator (PASA) in fast computing for big data (submitted).
8. **Luo, L.**, Han, R.J., Lin, Y.Y. and Huang, J. Statistical inference in high-dimensional generalized linear models with streaming data (submitted).
9. **Luo, L.** and Hector, E.C. Statistical inference for streamed longitudinal data (submitted).
10. Han, R.J., **Luo, L.**, Lin, Y.Y. and Huang, J. Online debiased lasso (in preparation).
11. **Luo, L.** and Shi, X. Sequential monitoring and near real-time post-market vaccine safety surveillance (in preparation).

Honors and Awards

2020	Student Paper Competition Award for Statistical Learning and Data Science
2020	Winning Proposal in the 2020 Joint Shark Tank Retreat
2019	Excellence in Research Honorable Mention
2019	Rackham Predoctoral Fellowship for Academic Year 2019-2020
2019	The International Biometric Society Eastern North American Region's (ENAR) Distinguished Student Paper Award
2018	The Michigan Institute for Data Science (MIDAS) Annual Symposium Poster Award of Most Innovative Use of Data
2015	Outstanding Academic Performance First-Year Master's Program
2015	Certificate in Public Health Genetics (CPHG) Award
2013	HUST Excellent Graduate
2012	HUST Qiming Academy Outstanding Student Award & First Prize in Accomplishments
2011	China National Scholarship

Grants

Title	Real-time regression analysis of heterogeneous streaming datasets via hierarchical modeling approaches
Role	Principal investigator
Funding agency	National Science Foundation (DMS)
Status	Pending

Software

R packages: `glmADMM`, `RenewGLM`, `RenewQIF` (available on <https://github.com/luolsph>)

Technical Skills

R, Rcpp, SAS, Python, SQL, Matlab, TeX

Professional Activities and Service

Journal referee	Statistical Sinica, Statistics in Medicine, Electronic Journal of Statistics, Journal of Computational and Graphical Statistics, and Computational Statistics and Data Analysis
Member	American Statistical Association (2018 - present) International Biometric Society, ENAR (2017 - present)