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**, *Online A/B Testing with Valid Confidence Intervals* Google LLC	Mountain View, CA
2017-2019	**Research Assistant**, *Black Women's Wellness Project* Department of Health Behavior and Health Education, University of Michigan Ann Arbor, MI	
2015-2016	**Research Assistant**, *Effects of Contamination on DNA Sequencing Data* Department of Biostatistics, University of Michigan	Ann Arbor, MI
2015	**CPHG Summer Intern**, *Solving Constrained Optimization Problems via Alternating Direction Method of Multipliers* Department of Biostatistics, University of Michigan	Ann Arbor, MI

Teaching Experience

2021	**Primary Instructor**, *Introduction to Data Science (new course)* Department of Statistics & Actuarial Science, University of Iowa	Iowa City, IA
2020-2021	**Primary Instructor**, *Mathematical Statistics I* Department of Statistics & Actuarial Science, University of Iowa	Iowa City, IA
2021-2022	**Primary Instructor**, *Mathematical Statistics II* Department of Statistics & Actuarial Science, University of Iowa	Iowa City, IA

Publications

1. **Luo, L.**, Zhou, L. and Song, P.X.K. (2022). Real-time regression analysis of streaming clustered data with possible abnormal data batches. *Journal of the American Statistical Association (Theory & Methods)* (accepted).

2. **Luo, L.** and Song, P.X.K. (2021). Multivariate online regression analysis with heterogeneous streaming data. *The Canadian Journal of Statistics.* http://doi.org/10.1002/cjs.11667.

3. **Luo, L.** and Song, P.X.K. (2020). 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.

4. **Luo, L.**, She, X.C., Cao, J., Zhang, Y.L., Li, Y., 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.

5. Shen, R., **Luo, L.** and Jiang, H. (2017). Identification of gene pairs through penalized regression subject to constraints. *BMC Bioinformatics*, **18**: 466.

6. Yang, Y., **Luo, L.**, Xu, J. et al. (2013). Novel EDA p.Ile260Ser mutation linked to non-syndromic hypodontia. *Journal of Dental Research*, **92**: 500–506.

Manuscripts In Revision

7. **Luo, L.** and Hector, E.C. (2022+) Statistical inference for streamed longitudinal data. *Biometrika* (invited revision).

8. Han, R., **Luo, L.**, Lin, Y. and Huang, J. (2022+) Online debiased lasso for streaming data. *The Journal of Econometrics* (invited revision).

Manuscripts Submitted or In Preparation

9. Hector, E.C., **Luo, L.** and Song, P.X.K. Parallel-and-stream accelerator (PASA) in fast computing for big data (submitted).

10. **Luo, L.**, Han, R., Lin, Y. and Huang, J. Statistical inference in high-dimensional generalized linear models with streaming data (submitted).

11. **Luo, L.** and Li, L. Online two-way estimation and inference via linear mixed-effects models (submitted).

12. Shi, X. and **Luo, L.** Sequential monitoring and near real-time post-market vaccine safety surveillance (in preparation).

Honors and Awards

2022	Old Gold Summer Fellowship
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
2011	China National Scholarship

Presentations

Department - Colloquium

2021	*Real-Time Regression Analysis with Streaming Health Datasets*, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, IA, United States.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Statistics and Actuarial Science, University of Iowa, Iowa City, IA, United States.
2020	*Real-Time Regression Analysis with Streaming Health Datasets*, Public-Health Sciences – Biostatistics Program, Fred Hutchinson Cancer Research Center, Seattle, WA, United States.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Statistics, UW Madison College of Letters & Science, Madison, WI, United States.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Statistics and Data Sciences, College of Natural Sciences, The University of Texas at Austin, Austin, TX, United States.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Statistics and Operations Research, The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States.
2020	*Real-Time Regression Analysis with Streaming Health Datasets*, Department of Biostatistics, Fielding School of Public Health, University of California, Los Angeles, CA, United States.
2020	*Real-Time Regression Analysis with Streaming Health Datasets*, Department of Biostatistics, University of Minnesota, Minneapolis, Minnesota, United States.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Mathematics and Statistics, McGill University, Montreal, Quebec, Canada.
2020	*Renewable Estimation and Incremental Inference with Streaming Health Datasets*, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, ON, Canada.

2021	*Multivariate Online Regression Analysis with Heterogeneous Streaming Data.* International Chinese Statistical Association (virtual).
2021	*Sequential Monitoring and Near Real-Time Post-Market Vaccine Safety Surveillance.* International Chinese Statistical Association (virtual).
2020	*Real-Time Regression Analysis of Streaming Clustered Datasets.* Joint Statistical Meetings (virtual).

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	Journal of the American Statistical Association, Statistical Sinica, Statistics in Medicine, Electronic Journal of Statistics, Journal of Computational and Graphical Statistics, Computational Statistics and Data Analysis, IEEE Transactions on Neural Networks and Learning Systems, International Journal of Biostatistics
Department	Graduate Minor Exam Committee, Member (2021)
	Social Committee, Chair (2020 - present)
	Computer Committee, Member (2020 - present)
Member	International Chinese Statistical Association (2021 - present)
	American Statistical Association (2018 - present)
	International Biometric Society, ENAR (2017 - present)