Lu(Laura) Wang | Curriculum Vitae

Assistant Professor, Mathematics Department, Western New England University

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Degrees

- **Ph.D., Statistics**
  Dept of Statistics, University of South Carolina, Columbia, SC, United States *2014–2020*
  PhD Dissertation: Semiparametric Regression Analysis of Arbitrarily Censored Data and Panel Count Data
  Advisor: Lianming Wang

- **Bachelor of Medicine, Clinical Laboratory Science**
  West China School of Medicine, Sichuan University, Chengdu, P.R China *2008–2013*

Experience

- **Assistant Professor of Statistics** **Western New England University**
  August 2020 - Present
- **Graduate Teaching Assistant** **University of South Carolina**
  2014–2020
- **Internship** **GCP Centre (Chengdu)**
  Project: LC-MS/MS Method for Analyzing Glimepiride in Human Plasma *2013*
- **Internship** **Geriatrics Medical Centre**
  Maintaining health records, documenting information *2013*
- **Internship** **West China Hospital**
  Department of Laboratory Medicine: laboratory tasks *2012*
- **Trainee** **West China Hospital**
  Division of Clinical Molecular Diagnostics: paternity testing *2009*

Teaching Experience

- **QR 112: Quantitative Reasoning for Business** **WNEU**
  Spring 2023
- **Hon 192: Introductory Statistics** **WNEU**
  Spring 2023
- **MATH 372: Probability** **WNEU**
  Spring 2022 & Spring 2023
- **MATH 441: Data Visualization and Technique** **WNEU**
  Spring 2022
- **MATH 121: Introductory Probability and Statistics** **WNEU**
  Fall 2021 & Fall 2022

- **MATH 221: Introductory Probability and Statistics II** **WNEU**
  Fall 2021
- **MATH 451 & 452: Senior Project I & II** **WNEU**
  Fall 2021 & Spring 2022
- **MATH 331: Computation in Statistics** **WNEU**
  Spring 2021
- **MATH 383: Mathematical Statistics** **WNEU**
  Fall 2020 & Fall 2022
- **MATH 120: Introductory Statistics for the Arts & Sciences** **WNEU**
  Fall 2020 & 2021 & 2022 & Spring 2023
- **STAT 509: Statistics for Engineers** **UofSC**
  Fall 2018 & Summer 2019
- **STAT 201: Elementary Statistics** **UofSC**
  Springs 2018,2020 & Fall 2019

Research Interests

Semi-Parametric Modeling, Bayesian Modeling and Computing, Complex Censored Data, Panel Count Data, Survival Analysis, Longitudinal Data, Invertible Neural Network, and Reinforcement Learning.

Refereed Journal Articles/Book Chapters

- L. Wang and L. Wang (2020). "EM algorithm for analyzing right-censored data under the semiparametric proportional odds model". Communications in Statistics –Theory and Methods.(`https://doi.org/10.1080/03610926.2020.1837879`)
- L. Wang and L. Wang (2021). "Regression analysis of arbitrarily censored survival data under the proportional odds model". Statistics in Medicine.(`https://doi.org/10.1002/sim.8994`)
- L. Wang, L. Wang, and X. Lin (2021) "Bayesian inferences for panel count data and interval-censored data with nonparametric modeling of the baseline functions". A book chapter in book "Bayesian Inference and Computation in Reliability and Survival Analysis" Edited by Professors Yuhlong Lio, Ding-Geng (Din) Chen, Hon Keung Tony Ng and TzongRu Tsai.
- Lu Wang, Chunling Wang, Xiaoyan Lin and Lianming Wang. "Regression Analysis of Panel Count Data Accounting for Within-Subject Correlation with Nonparametric Frailty Distribution". (to be re-submitted)
- Lu Wang and Lianming Wang. "An EM algorithm for arbitrarily censored and left truncated data under the proportional odds model" (on going)
- Lu Wang, Jiwei Zhao and Yanyuan Ma. *'Semi-parametric Modeling in Meta-analysis' (on going)*
- Minsuk Shin, Lu Wang, and Jun Liu (2020). "A novel MCMC sampling method based on invertible neural network".(`https://arxiv.org/abs/2006.00767` unpublished work)

Statistics Journal Reviewer

- BMJ Open

- PeerJ
- Statistical Papers
- Journal of Applied Statistics

Department/University Service

- A & S Curriculum Committee, Spring 2022-Present
- JEDI Committee, December 2022 - Present
- Assessment Committee in the Department of Mathematics, Spring 2023 - Present
- Actuarial Science Committee in the Department of Mathematics, Fall 2021
- Developed the Data Science and Statistics major under the lead of Dr. Marcel Cacea, 2022

Presentations

- "Semiparametric Bayes Proportional Odds Models for arbitrarily censored failure time data", Joint Statistical Meetings, Baltimore, 2017
- "Fitting Semi-parametric Proportional Odds Models to Arbitrarily Censored Data with EM Algorithm", South Carolina Chapter of the American Statistical Association, 2018
- "Bayesian inferences for panel count data and interval-censored data with nonparametric modeling of the baseline functions", ICSA 2020 Applied Statistics Symposium.

Statistical Packages

- regPO: Regression analysis of arbitrarily censored data under the proportional odds models (available on: https://github.com/luwstat/regPO)
- regPOr: An expectation-maximization (EM) algorithm for analyzing right-censored survival data. (available on: https://github.com/luwstat/regPOr)

Technical and Personal skills

- **Programming Languages:** R, Python, SAS, LaTeX.
- **Industry Software Skills:** Most MS Office products including Excel, PowerPoint, and Word.