

Curriculum Vitae

Dr. Yuhui Chen

Associate Professor
The Department of Mathematics
The University of Alabama
Tuscaloosa, AL 35487

Office: Gordon Palmer Hall, 219A
Tel. 205 – 348 - 6565
Email: ychen164@ua.edu

Education

- 2012 Ph.D. in Statistics, University of South Carolina, USA (**Ph.D. Advisor: Timothy E. Hanson**)
- 2011 M.S. in Statistics, University of South Carolina, USA
- 2008 M.S. in Computer Science, Bowling Green State University, USA
- 1999 B.S. in Computer Science, Chongqing University, China

Professional Experiences

- 2020 - Associate Professor, The Department of Mathematics, The University of Alabama, USA
- 2014 - 2020 Assistant Professor, The Department of Mathematics, The University of Alabama, USA
- 2008 - 2011 Information Technology Assistant, Department of Statistics, University of South Carolina
- 2002 - 2005 Software Development Manager, Sichuan Changhong Electric Co., Ltd., China
- 1999 - 2002 Software Engineer, Sichuan Changhong Electric Co., Ltd., China

Publications

The University of South Carolina

1. **Yuhui Chen** and Timothy E. Hanson (2014). "Bayesian nonparametric k-sample tests for censored and uncensored data". *Computational Statistics & Data Analysis*, **71**, 335-346.
2. **Yuhui Chen**, Timothy E. Hanson, and Jiajia Zhang (2014). "Accelerated hazards model based on parametric families generalized with Bernstein polynomials". *Biometrics*, **70**, 192-201.
3. **Yuhui Chen** and Timothy E. Hanson (2014). "Bayesian nonparametric density estimation for doubly-truncated Data". *Statistics and Its Interface*, **7**, 455-463.
4. **Yuhui Chen** (2012). "Bayesian Nonparametric Models and Tests for Association in Survival Data". Doctoral dissertation. Ph.D. Advisor: Timothy E. Hanson.

The University of Alabama

5. **Yuhui Chen** (2014). "A New Polya Tree Construction Facilitating A Goodness-of-Fit Test". *Journal of Data Science*, **12**, 325-338.
6. **Yuhui Chen** (2016). "A new type of Bayesian nonparametric control charts for individual measurements". *Journal of Statistical Theory and Practice*, **10**, 226-238.
7. **Yuhui Chen** (2016). "A Copula-Based Supervised Learning Classification for Continuous and Discrete Data". *Journal of Data Science*, **14**, 769-789.
8. **Yuhui Chen** (2017). "EWMA control charts for multivariate autocorrelated processes". *Statistics and Its Interface*, **10**, 575-584.

9. **Yuhui Chen** and Timothy Hanson (2017) "Semiparametric regression control charts". *Journal of Statistical Theory and Practice*, **11**, 126–144.
10. **Yuhui Chen** and Timothy Hanson (2017). "Copula regression models for discrete and mixed bivariate responses". *Journal of Statistical Theory and Practice*, **11**, 515-530.
11. **Yuhui Chen** and Timothy Hanson (2017). "Flexible parametrization of variance functions for quantal response data derived from counts". *Journal of Biopharmaceutical Statistics*, **27**, 858-868.
12. Timothy Hanson, Miguel de Carvalho, and **Yuhui Chen** (2017). "Bernstein polynomial angular densities of multivariate extreme value distributions". *Statistics and Probability Letters*, **128**, 60-66.
13. **Yuhui Chen**, Mingwei Sun, and Timothy Hanson (2018). "Nonparametric multivariate Polya tree EWMA control chart for process changepoint detection". *Statistics and Its Interface*, **11**, 281-293.
14. Ying Wang, Shujie Chen, Jiajia Zhang, Yanan Zhang, Linda Ernstsens, Carl Lavie, Steven Hooker, **Yuhui Chen**, Xuemei Sui (2018). "Nonexercise estimated cardiorespiratory fitness and all-cancer mortality: the NHANES III study". *Mayo Clinic Proceedings*, **93**, 848-856.
15. **Yuhui Chen**, Jiajia Zhang, and Yangyang Xu (2018). "Adaptive lasso for accelerated hazards models". *Journal of Statistical Computation and Simulation*, **88**, 2948-2960.

Manuscripts under Review or Preprints

1. **Yuhui Chen** (2019+). "Semiparametric survival models generalized for feature selection". Preprint.
2. **Yuhui Chen** and Spencer Douglas (2019+). "Doubly adaptive correlation penalty for regularized accelerated hazards". Preprint.

Patents

1. Patent# (CN2456406 Y). "Television set with automatic program identification". October 24, 2001.
2. Patent# (CN2485897 Y). "Timing TV set". April 10, 2002.
3. Patent# (CN1313707 A). "Control method for television set with real-time timer". September 19, 2001

Awarded Grants

1. Title: "Bayesian Nonparametric Regression Control Chart"
 Agency: Research Grants Committee (RGC), The University of Alabama
 Total Amount: \$4500.00
 PI: Yuhui Chen, Ph.D.
 Status: Awarded
 Effective Dates: May 15, 2015 to May 14, 2017

Honors and Awards

1. Outstanding Graduate Assistant Award, University of South Carolina, SC (2010)
2. Outstanding Employee Patent Award, Sichuan Changhong Electric Co., Ltd., China (2003)
3. Outstanding Employee Performance Award, Sichuan Changhong Electric Co., Ltd., China (2002)
4. Outstanding Employee Patent Award, Sichuan Changhong Electric Co., Ltd., China (2002)

5. Outstanding Academic Award, Chongqing University, Chongqing, China (1998)

Conferences & Talks

- ENAR 2019 Sprint Meeting, Philadelphia, 2019
- Invited talk: “Bayesian nonparametric models and its applications”. Mississippi State University, 2018
- Presentation: “Semiparametric prior nested within accelerated hazards model for robust estimation & variable selection”. The 6th Workshop on Biostatistics and Bioinformatics, 2018, USA
- Presentation: “Nonparametric multivariate Polya tree EWMA control chart for process changepoint detection”. Joint Statistical Meetings, 2017, Baltimore, USA
- Invited SAMSI WISO workshop, 2017, Duke University, USA
- Invited talk: “EWMA control charts for multivariate autocorrelated processes”. Joint Applied Math PhD Program, 2016, USA
- World Congress on Engineering and Computer Science 2016 (WCECS 2016), San Francisco, 2016
- Invited talk: “Bayesian nonparametric density estimation for doubly-truncated data”. Applied Statistics Symposium Joint with Graybill Conference, 2015, USA
- Presentation: “A new Bayesian nonparametric control charts for individual measurements”. The University of Alabama, 2014
- Invited talk: “D-Vine Copulas: Estimate the partial correlation matrix for gene network reconstruction”. Dow Chemical Company – Research Symposium, 2012, USA
- Presentation: “A novel nonparametric prior based on transformed Bernstein polynomial”. Joint Statistical Meetings, 2012, San Diego, USA
- Presentation: “Some hypothesis tests based on Polya trees”. Joint Statistical Meetings, 2011, Miami, USA

Teaching

Math 355	Theory of Probability	Fall 2019
Math 452/552	Math Stats W/Applictn II	Fall 2019
Math 126	Calculus II	Summer 2019
Math 355	Theory of Probability	Summer 2019
Math 247	Honors Calculus III	Spring 2019

Math 452/552	Math Stats W/Applictn II	Spring 2019
Math 247	Honors Calculus III	Fall 2018
Math 554	Math Statistics I	Fall 2018
Math 355	Theory of Probability	Summer 2018
Math 452/552	Math Stats W/Applictn II	Spring 2018
Math 555	Math Statistics II	Spring 2018
Math 247	Honors Calculus III	Fall 2017
Math 554	Math Statistics I	Fall 2017
Math 121	Calculus & Applications	Summer 2017
Math 237	Introduction to Linear Algebra	Spring 2017
Math 452/552	Math Stats W/Applictn II	Spring 2017
Math 451/551	Math Stats W/Applictn I	Fall 2016
Math 247	Honors Calculus III	Fall 2016
Math 112	Precalculus Algebra	Summer 2016
Math 452/552	Math Stats W/Applictn II	Spring 2016
Math 451/551	Math Stats W/Applictn I	Fall 2015
Math 125	Honors Calculus I	Fall 2015
Math 126	Honors Calculus II	Fall 2015
Math 126	Honors Calculus II	Spring 2015
Math 125	Honors Calculus I	Fall 2014
Math 451/551	Math Stats W/Applictn I	Fall 2014

Services

Thesis Chair

- Spencer Douglas (2019). “Accelerated Hazards Model with Doubly Adaptive Correlation Penalization”. The University of Alabama

Thesis Committee

- Joseph Aicher (2015). “Metabolic Network Inference with The Graphical Lasso”. The University of Alabama

Dissertation Committee

- Vishal Oza (2019+). “Constructing a graphical model of the Drosophila melanogaster metabolome”. The University of Alabama
- Margaret Lund (2019). “LOCAL SUPERVISED METHODS FOR BOUNDARY DETECTION IN IMAGES”. The University of Alabama at Huntsville
- Phylisicia Carter (2018). “Sparse Regression for Twitter Analysis”. The University of Alabama
- Sijie Liu (2017). “Development of interval and non-interval methods for solving multi-objective optimization problems”. The University of Alabama

- Laura Watley (2017). “Structural Validity and reliability of two observation protocols in college mathematics”. The University of Alabama
- Toyin Alli (2016). “Statistical networks with applications in economics and finance”. The University of Alabama

Graduate Mentor

- Keisha Cook (2014-2015)

University and Departmental Services

- Math undergraduate advisor 2019 – current
- Math Assessment Committee. 2018 - current
- Undergraduate Program Committee. 2017 - current
- Math 355 textbook selection committee (Spring 2019)
- Course coordinator (Math 355, Fall 2019)
- Faculty hiring committee (2017-2018)
- Data Analysis search committee (2017-2018)
- Faculty hiring committee (2016-2017)
- Graduate Admissions Committee. Fall & Spring 2016
- Graduate Recruitment (GREX) (2015 & 2016)

Other Professional Activities

Reviewer for Journals

- The Royal Statistical Society: Series A
- The Royal Statistical Society: Series B
- The Royal Statistical Society: Series C
- Biometrics
- Statistics in Medicine
- Statistical Methods in Medical Research
- Computational Statistics & Data Analysis
- Technometrics
- Statistica Sinica
- Bayesian Analysis
- Journal of Applied Statistics
- Journal of Computational and Graphical Statistics
- Communications in Statistics – Theory and Methods
- American Journal of Applied Sciences
- Journal of Mathematics and Statistics
- Statistics and Its Interface
- BMC Medical Research Methodology
- Journal of Statistical Computation and Simulation

- Statistics and Probability Letter
- Journal of Statistical Theory and Practice
- The American Statistician
- International Journal of Biostatistics

Sep 20, 2019