# Curriculum Vitae

# Dr. Yuhui Chen

Assistant Professor

Department of Mathematics Office: Gordon Palmer Hall, 219A

The University of Alabama Tel. 205 – 348 - 6565

Tuscaloosa, AL 35487 Email: ychen164@ua.edu

## Degrees

 2012 Ph.D. in Statistics, University of South Carolina, USA

 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, China

## Professional Experience

##  ssistant Professor, Department of Mathematics, University of Alabama

##  Senior Statistician, Dow Chemical Company, USA

##  Teaching Assistant, Department of Statistics, University of South Carolina

 Information Technology Assistant, Department of Statistics, University of South Carolina

 Teaching Assistant, Department of Computer Science, Bowling Green State University

 Software Development Manager, Sichuan Changhong Electric Co., Ltd., China

 Software Engineer, Sichuan Changhong Electric Co., Ltd., China

## Honors and Awards

1. Graduate Travel Award, University of South Carolina (2011)

Outstanding Graduate Assistant Award, University of South Carolina, SC (2010)

Graduate Travel Award, University of South Carolina (2010)

Outstanding Employee Patent Award, Sichuan Changhong Electric Co., Ltd., China (2003)

Outstanding Employee Performance Award, Sichuan Changhong Electric Co., Ltd., China (2002)

Outstanding Employee Patent Award, Sichuan Changhong Electric Co., Ltd., China (2002)

Outstanding Academic Award, Chongqing University, Chongqing, China (1998)

## Publications

**Yuhui Chen** and Timothy E. Hanson. (2014). *“Bayesian Nonparametric k-Sample Tests for Censored and Uncensored Data”.* Computational Statistics and Data Analysis, 71, 335-346.

**Yuhui Chen**, Timothy E. Hanson, and Jiajia Zhang. (2014). *“Accelerated Hazards Model based on Parametric Families Generalized with Bernstein Polynomials”.* Biometrics, 70, 192-201.

**Yuhui Chen** and Timothy E. Hanson (2014). *“Bayesian Nonparametric Density Estimation for Doubly-Truncated Data”.* Statistics and Its Interface, 4, 455-463.

**Yuhui Chen**. (2014). *“A New Polya Tree Construction Facilitating A Goodness-of-Fit Test”.* Journal of Data Science, 12, 143-155.

**Dissertation**: *“Bayesian Nonparametric Models and Tests for Association in Survival Data”.* Department of Statistics, University of South Carolina. Advisor: Dr. Timothy E. Hanson.

**Yuhui Chen**. (2015). “*A New Type of Bayesian Nonparametric Control Charst for Individual Measurements*”. Journal of Statistical Theory and Practice, Accepted.

**Yuhui Chen**. (2016). “*A Copula-Based Supervised Learning Classification for Continuous and Discrete Data*”. Journal of Data Science, Accepted.

**Yuhui Chen**. (2016). “*EWMA Control Charts for Multivariate Autocorrelated Processes*”. Statistics and Its Interface, Accepted.

## Manuscripts in Review and in Progress:

**Yuhui Chen** and Timothy Hanson. (2016+). “*Flexible Parametrization of Variance Functios for Quantal Response Data Derived from Counts*”. Journal of Biopharmaceutical Statistics, 2nd round revision.

**Yuhui Chen** and Timothy Hanson (2016+) “*Semiparametric Regression Control Charts*”, Journal of Statistical Theory and Practice, 1st round revision.

**Yuhui Chen** and Timothy Hanson. (2016+). “*Copula Regression Models for Discrete and Mixed Bivariate Responses*”. The American Statistician, 1st round revision.

Mingwei Sun, **Yuhui Chen,** and Timothy Hanson. (2016+). “*Nonparametric Multivariate Polya Tree EWMA Control Chart for Process Changepoint Detection*”. Journal of Nonparametric Statistics, submitted

Timothy Hanson, Miguel de Carvalho, and **Yuhui Chen**. (2016+). “*Extreme Value Modeling via Moment-Constrained Multivariate Bernstein Polynomials on the Simplex*”. In-Progress.

**Yuhui Chen**. (2016+). “*Adaptive Lasso for Accelerated Hazards Model*”. In-progress.

**Yuhui Chen**. (2016+). “*Lasso-Based Diagnostic Control Chart for Multivariate Processes*”. In-Progress.

**Yuhui Chen**. (2016+). “*Regularization and Variable Selection via the Correlation-Based Penalty*”. In-Progress.

## Presentations and Invited Talks

Invited Talk: *EWMA Control Charts for Multivariate Autocorrelated Processes.* 2016 Joint Applied Math PhD Program, USA

Invited Talk: *Bayesian nonparametric density estimation for doubly-truncated data.* Applied Statistics Symposium Joint with Graybill Conference 2015, USA

Talk: *Vine Copulas for Multivariate Dependence and Its Application on Big-Data.* Joint Statistical Meetings 2015, USA

Talk: *A new Bayesian nonparametric control charts for individual measurements*. Math Department Seminar 2014, the University of Alabama

Talk: *D-Vine Copulas: Estimate the Partial Correlation Matrix for Gene Network Reconstruction.* 2012, Dow Chemical Company – Research Symposium, USA

Talk: *Transformed Bernstein Polynomial Priors and Its Application on Accelerated Hazards Model.* Joint Statistical Meetings 2012, USA

Talk: *Polya Tree based k-Sample Hypothesis Testing.* Joint Statistical Meetings 2011, USA

## Patents

Patent Title: *Smart Learning and Automatic Signal Recognition Technology.* Patent # CN00245195.6, issued by the State Intellectual Property Office of the People’s Republic of China

Patent Title: *Synchronous and Real-time Monitoring TV.* Patent # CN00244985.4, issued by the State Intellectual Property Office of the People’s Republic of China

## Professional Organizations

American Statistical Association

International Biometrics Society (ENAR)

## Synergistic Professional Activities

Internal Services:

Graduate Admissions Committee

Math Education Search Committee

Professional Services:

Manuscripts review for:

. The Royal Statistical Society: Series A, B & C

Communications in Statistics – Theory and Methods

Journal of Applied Sciences

. Journal of Mathematics and Statistics

. Statistics and Its Interface

Book review for:

. Wiley

Grant Applications:

Research Grants Proposal, entitled “A Semiparametric Regression Control Chart Based on Normal Centered Transformed Bernstein Polynomial Priors”, was submitted to *the College Academy of Research, Scholarship, and Creative Activity, UA.*

Research Grants Proposal, entitled “Bayesian Nonparametric Regression Control Charts”, was submitted to *Research Grants Committee (RGC), UA. (Awarded)*

Professional Committees:

Dissertation Committee Chair

Dissertation Committee member

Theses Committee member

Graduate Student Mentor

Teaching:

Mathematics: Math Stats W/Application I; Math Stats W/Application II; Calculus I; Calculus II; Honor Calculus III; Precalculus Algebra; Dissertation Research

Statistics: Elementary Statistics; Introduction to Descriptive Statistics

Computer Science: Computer Basics; Object-oriented Programming