PEIJIE HOU

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EDUCATION

- **Ph.D. in Statistics**, May 2016 (expected)
  Department of Statistics, University of South Carolina, Columbia, SC
  - GPA 4.0/4.0
  - Dissertation title: Topics in group testing with multiple infections
  - Advisers: Dr. Joshua M. Tebbs and Dr. Dewei Wang
- **M.S. in Statistics**, August 2011
  Department of Statistics, Miami University, Oxford, OH
  - GPA 3.84/4.0
  - Thesis topic: Hierarchical Bayesian modeling of species distribution and abundance
  - Adviser: Dr. Jing Zhang
- **B.S. in Mathematics**, June 2008
  Department of Mathematics, Soochow University, Soochow, P.R. China

PROFESSIONAL EXPERIENCE

- **Teaching Assistant**, August 2011 - July 2015
  Department of Statistics, University of South Carolina, Columbia, SC
  - Instructor of record for 6 sections of STAT 201 (Elementary Statistics, 270 students), 1 section of STAT 205 (Elementary Statistics for the Biological/Life Sciences, 95), 1 section of STAT 509 (Statistics for Engineers, 48) and 4 sections of STAT 512 (Mathematical Statistics, 27)
  - Lab instructor for 6 sections of STAT 201
- **Research Assistant**, August 2015 - present
  Department of Statistics, University of South Carolina, Columbia, SC
  - Work under the guidance of Drs. Joshua M. Tebbs and Dewei Wang to develop parametric, semiparametric, and nonparametric models for group testing data

CURRENT RESEARCH INTEREST

- Big Data • Categorical data • Statistical methods for pooled data (group testing)
- Bayesian inference • Statistical computing • Semiparametrics and nonparametrics
- Measurement error • Applications in biology, ecology, epidemiology, and public health

PUBLICATIONS

1. Hou, P., Tebbs, J., and Bilder, C. (2016+). Hierarchical group testing for multiple infections. *Biometrics,* revised and resubmitted.
2. Zhang, J., Crist, T., and Hou, P. (2014). Partitioning of α and β diversity using hierarchical Bayesian modeling of species distribution and abundance. *Environmental and Ecological Statistics* **21**, 611-625.

MANUSCRIPTS IN PREPARATION

1. Hou, P., Wang, D., and Tebbs, J. (2016+). Array-based group testing algorithms for simultaneous detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. In preparation for *Annals of Applied Statistics.*
2. Hou, P., Wang, D., and Tebbs, J. (2016+). Multivariate logistic regression models for correlated group testing data. In preparation for *Biometrics.*
3. Hou, P., Wang, D., and Tebbs, J. (2016+). Semi-parametric regression for multiple infection group testing data. In preparation for *Biometrika.*
4. Hou, P. and Huang, X. (2016+). Regression analysis for group testing data with measurement error. In preparation for *Statistics in Medicine.*

HONORS AND AWARDS

- Dean's Doctoral Dissertation Fellowship Award, College of Arts and Sciences, University of South Carolina, 2015-2016
- Outstanding Graduate Student in Academics Award, Department of Statistics, University of South Carolina, 2015
- **ENAR Distinguished Student Paper Award**, 2015
- Best Poster Presentation Award, SCASA Fall Meeting, Clemson University, 2014
- Travel Grant, Department of Statistics, University of South Carolina, 2014, 2015
- Travel Grant, Graduate School, University of South Carolina, 2014, 2015
- Outstanding Graduate Assistant Award, Department of Statistics, University of South Carolina, 2014
- Boyd Harshbarger Award, SRCOS Summer Research Conference, Galveston, 2014
- Journal Award, Department of Statistics, Miami University, 2011

RESEARCH PRESENTATIONS

- Oral presentation "Array-based group testing algorithms for simultaneous detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*." Joint Statistical Meetings, Seattle, August 2015.
- Oral presentation "Hierarchical group testing for multiple infections." ENAR Spring Meetings, Miami, March 2015.
- Poster presentation "Array-based group testing algorithms for multiple infections." South Carolina Chapter of the American Statistical Association Meeting, Clemson, November 2014.

- Oral presentation "Hierarchical group testing for multiple infections." Department of Statistics, University of South Carolina, Columbia, November 2014.
- Oral presentation "Hierarchical group testing for multiple infections." Joint Statistical Meetings, Boston, August 2014.
- Poster presentation "Hierarchical group testing for multiple infections." SRCOS 2014 Summer Research Conference, Galveston, June 2014.
- Oral presentation "Regression analysis for group testing data with measurement error." Department of Statistics, University of South Carolina, Columbia, April 2013.

COMPUTING SKILLS

- Programming: C, R, R/C++ integration, SAS, WinBUGS

PROFESSIONAL ORGANIZATIONS

- American Statistical Association
- Institute of Mathematical Statistics
- International Biometrics Society (ENAR)
- Mu Sigma Rho