CURRICULUM VITAE
Ying Guo, Ph.D.

Dept. of Biostatistics and Bioinformatics, Emory University, 1518 Clifton Rd NE Room 326, Atlanta, GA, 30322
404-712-8646 (Office) ⬧ E-mail: yguo2@emory.edu
Personal Web Site: http://web1.sph.emory.edu/users/yguo2/

RESEARCH INTERESTS

Statistical Research Interests
- Imaging statistics
- Assessing agreement/ reliability / reproducibility
- Multivariate data analysis

Collaborative Research Interests
- Neuroimaging
- Psychiatry, Mental Health
- Women's Health

EDUCATION

- 2004   PhD   Biostatistics, Rollins School of Public Health, Emory University, Atlanta, GA.
  Advisor: Dr. Amita K. Manatunga
  Dissertation Title: Assessing Agreement for Survival Outcomes

- 1998-2000   MS Program   Statistics, Renmin University of China, Beijing, China.

- 1998   BS   Statistics, Renmin University of China (People's University of China), Beijing, China.

PROFESSIONAL EXPERIENCE

- 2013-pres.   Associate Professor, with tenure
  Department of Biostatistics and Bioinformatics, Emory University

- 2014-pres.   Acting Director, Center for Biomedical Imaging Statistics (CBIS)
  The Rollins School of Public Health, Emory University

• 2009-pres.   Training Faculty, Neuroscience Graduate Program
                        Graduate Division of Biological and Biomedical Sciences, Emory
University

• 2007-pres.   Founding Member, Center for Biomedical Imaging Statistics (CBIS)
                        The Rollins School of Public Health, Emory University, Atlanta, GA
• 2006-2013   Assistant Professor
                      Department of Biostatistics, Emory University

• 2004-2006   Research Assistant Professor
                      Department of Biostatistics, Emory University

• 2001-2004   Statistician/Research Assistant
                      Department of Biostatistics, Emory University

• 2002-2004   Statistical Consultant
                      The Biostatistics Consulting Center (BCC), Department of Biostatistics,
                      Emory University

• 2003   Statistical Intern
                      Eli Lilly and Company, Indianapolis, IN.

• 1998   Statistical Intern
                      New China Life Insurance Company, Beijing, P.R.China.

HONORS AND AWARDS

• 2015   Program Chair-Elect, Statistics in Imaging Statistics Section, American Statistical
                  Association
• 2013   Honorable Mention in 2013 Biostatistics Teaching Award, Department of
                  Biostatistics and Bioinformatics, Emory University
• 2008   Paper listed in ScienceDirect's Top 25 hottest articles of *NeuroImage*
• 2005   R.L. Anderson Award of Summer Research Conference on Statistics
• 2004   International Biometric Society's Eastern North American Region (ENAR)
                  Distinguished Student Paper Award
• 2003   Travel award by the International Conference on Reliability and Survival Analysis
                  (ICRSA)
• 2000-2004   Graduate Fellowship, Emory University
• 1998   Wu Yuzhang Scholarship of Renmin University (highest student award of Renmin
                   Univ.)
• 1997   Outstanding Student Award by National Bureau of Statistics of China
• 1997   Metropolitan Life Scholarship by Metropolitan Life Insurance Company (MetLife)
                  of USA

- 1996   World's highest prize among undergraduate students in the CALCULUS AND
          LINEAR ALGEBRA examination by SOA (Society of Actuaries, USA)
- 1994-1998   University Fellowship, Renmin University of China

EDITORIAL AND REVIEW ACTIVITIES

- **Editorial Board**
  2013-present   Statistical Editor, *Psychosomatic Medicine*

- **Journal Referee**

Statistical Journals:
Journal of the American Statistical Association (JASA)
Journal of the Royal Statistical Society: Series C
Statistical in Sinica
Canadian Journal of Statistics
Biometrics
Biostatistics
Lifetime Data Analysis
Statistics and its Interface
Annal of Applied Statistics

Other Scientific Journals:
NeuroImage
Human Brain Mapping
Transactions on Medical Imaging
Journal of Magnetic Resonance Imaging
Brain Imaging and Behavior
PLOS ONE
Psychometrika
Journal of Clinical Oncology

International Journal of Epidemiology
Annals of Epidemiology
International Journal of Psychophysiology

- **Grant review activities**

National Science Foundation (NSF), Methodology, Measurement, and Statistics (MMS) Program, **Invited grant reviewer**, 2009.

National Science Foundation (NSF), Cognitive Neuroscience Program, **Invited grant reviewer**, 2011.

Canadian Breast Cancer Foundation (CBCF), **Invited review Panelist** for Imaging-based Earlier Detection of Breast Cancer Program, 2012.

Emory University Research Committee (URC), **Invited grant reviewer**, 2005, 2011, 2013.

NIH, National Institute of Biomedical Imaging and Bioengineering (NIBIB), **Invited review panelist** for Biomedical Technology Resource (P41) Center (BTRC), 2014 and 2015.

NIH, National Institute of Biomedical Imaging and Bioengineering (NIBIB), **Invited review panelist** for K-award application, 2015.

NIH, **Invited review panelist** for ZRG1 BST-N (55) BD2K Open Educational Resources and Courses for Skills Development (R25), 2015.

RESEARCH FUNDING

Current

Project Co-PI: Guo Y (PI: Roback), "Serious Hazards of Transfusion & Cellular Therapies: Mechanisms and Intervention ", NIH P01, 2015-2020 .

PI: Guo, Y and Kang, J. "Statistical ICA Methods for Analysis and Integration of Multi-dimensional Data", NIH R01, 2014-2018.

PI: Guo, Y, Manatunga, A.K. and Peng, L**.** "Method Development of Agreement Measures and Applications in Mental Health", NIH R01, 2013-2018.

Co-Investigator: Guo Y (PI: Waldrop-Valverde and Gary), "Healing hearts, Healing minds", NIH R01. 2015-2019.

Co-Investigator: Guo Y (PI: Stephens), "Atlanta Clinical and Translational Science Institute (ACTSI) ", NIH UL1, 2007-2017 .

Co-Investigator: Guo Y(PI: Shim, H.), "Quantitative MRSI to predict early response to SAHA therapy in new GBM management ", NIH U01, 2013-2018.

Co-Investigator: Guo Y(PI: Shim, H.), " Improving Extent of Glioblastoma Resection by Combining Volumetric MRSI and 5-ALA", NIH R21, 2014-2016.

Biostatistician: Guo Y(PI: Anderson, A.), "Preliminary study of zidovudine addition for HIV-associated neurocognitive disorder.", NIH K23, 2013-2018.

Biostatistician: Guo Y(PI: Waldrop-Valverde, D.), " Effects of Health Literacy on Health Disparities in HIV Clinical Outcomes ", NIH R01, 2011-2016

Completed

Co-Investigator: Guo Y(PI: Bowman, F.D.), " Analytic Methods for Determining Multimodal Biomarkers for Parkinson's Disease ", NIH U18, 2012-2016. ***PI Relocated***.

Co-Investigator: Guo Y (PI: Waldrop-Valverde), "Center for Cognition and Affect in Chronic Illness", NIH P30, 2012-2015.

Co-Investigator: Guo Y (PI: Manatunga, A.K.)**,** "Methods Development for Agreement Studies in Mental health studies", EMORY URC/ATCSI, 2012-2013.

PI: Guo, Y., "Statistical methods for group independent component analysis for multi-subject functional magnetic resonance imaging data", Emory University Research Committee (URC), 2009-2010.

Co-PI: Guo Y(PI: Manatunga, AK), "Method Development of Agreement Measures and Applications in Mental Health", NIH R01, 2007-2012

Co-Investigator: Guo Y(PI: Bowman, F.D.), "Analytic Methods for Functional Neuroimaging Data", NIH R01. 2007-2012.

Biostatistician: Guo Y (PI: Shim, H.), " Using Proton MRS to Predict Response to SAHA Treatment in Glioblastoma", NIH R21, 2010-2013

Biostatistician: Guo Y(PI: Corwin, E.), "Psychoneuroimmune Contributions to Postpartum Depression ", NIH R01, 2009-2013.

Biostatistician: Guo Y (PI: Ferranti, E.) Dietary Quality and Cardiometabolic Risk in Women with previous Gestational Diabetes. American Heart Association, 2011-2013 (15%).

Biostatistician: Guo Y(PI**:** Musselman, D.), "Depression – Diabetes Mechanisms: Urban African Americans", NIH R01, 2003-2008

Biostatistician: Guo Y(PI: Musselman, D.), "Depression, Epinephrine, Serotonin and Platelet Function" , NIH R01, 2002-2007

Biostatistician: Guo Y(PI**:** Kilts, C.), "Cocaine Dependence and Cognitive Control of Behavior", NIH R01, 2003-2007

PEER- REVIEWED PUBLICATIONS

*: **the last author is the senior author of the paper**
#**: Phd student**

1. **Guo Y** and Manatunga AK (2005). Modeling the agreement of discrete bivariate survival times using kappa coefficient. *Lifetime Data Analysis,* 11(3): 309-332.

2. **Guo Y**, Nilsson ME, Heiligenstein JH, Wilson MG and Emslie GJ. An exploratory factor analysis of the children's depression rating scale-revised (2005). *Journal of Child and Adolescent Psychopharmacology*, 16 (4): 482-491.

3. **Guo Y**, Manatunga AK, Chen S. and Marcus M (2006). Modeling menstrual cycle length using a mixture distribution. *Biostatistics*, 7(1):100-114.

4. Musselman DL, Somerset WI, Porter M, **Guo Y**, Manatunga AK, Penna S, Schatzberg A, Evans D and Nemeroff CB* (2006). A double-blinded, multicenter, parallel group study of

paroxetine, desipramine, or placebo in breast cancer patients (stages I, II, III & IV) with major depression. *The Journal of Clinical Psychiatry*, 67:288-296.

5. Wolf SL, O'Grady M, Easley KA, **Guo Y**, Kressig RW and Kutner M *(2006). The influence of intense Tai Chi training on functional performance and hemodynamic outcomes in transitionally frail, older adults. *The Journal of Gerontology: Medical Sciences,* 61A (2): 184-189.

6. **Guo Y**, Musselman DL, Manatunga AK, Gilles N, Lawson KC, Porter MR, McDaniel JS and Nemeroff CB* (2006). The diagnosis of major depression in patients with cancer: a comparative approach. *Psychosomatics*, 47: 376 - 384.

7. **Guo Y** and Manatunga AK (2007). Nonparametric estimation of the concordance correlation coefficient under univariate censoring. *Biometrics*, 63(1): 164-172.

8. Bowman FB, **Guo Y**, and Derado G. (2007). Statistical Approaches to Functional Neuroimaging data. *Neuroimaging Clinics of North America: Imaging of the mind*, 17(4): 441-458.

9. **Guo Y**, Bowman FD, Kilts C (2008). Predicting the brain response to treatment using a Bayesian Hierarchical model . *Human Brain Mapping*, 29(9): 1092-1109.

10. **Guo Y** and Bowman FD (2008). Modeling Dose-Dependent Neural Processing Responses Using Mixed Effects Spline Models. *NeuroImage*, 40: 698-711.

11. Bruce EC, **Guo Y**, Lawson KC, Manatunga AK, McDonald WM, Rushing N, Brown AR, Gilles N, Emery M, Bonsall R, Porquez J, Stowe Z, Nemeroff CB, Musselman DL* (2008). Platelet Thromboxane A2 secretion in patients with major depression responsive to electroconvulsive therapy. *Psychosomatic Medicine,* 70:319–327.

12. **Guo Y** (2008). Group Independent Component Analysis of Multi-subject fMRI data: Connections and Distinctions between Two Methods. *IEEE Proceedings of the 2008 International Conference on BioMedical Engineering and Informatics* v2: 748-752.

13. **Guo Y** and Pagnoni G (2008). A unified framework for group independent component analysis for multi-subject fMRI data. *NeuroImage* 42: 1078-1093**. Listed in ScienceDirect's Top 25 hottest articles of *NeuroImage* between July-Sep. 2008.**

14. Pagnoni G, Cekic M and **Guo Y***(2008). "Thinking about not-thinking": neural correlates of conceptual processing during Zen meditation. *PLoS ONE*, 3(9): e3083.

15. **Guo** Y and Manatunga AK (2009). Measuring agreement of multivariate discrete survival times using a modified weighted kappa coefficient. *Biometrics*, 65(1):125-34.

16. Lyles, R, **Guo Y** and Hill, A (2009). A Fresh Look at the Discriminant Function Approach for Estimating Crude or Adjusted Odds Ratios. *The American Statistician*, 63(4): 320-327.

17. **Guo** Y and Manatunga AK (2010). A note on assessing agreement for frailty models. *Statistics and Probability Letters*. 80: 527-533.

18. **Guo Y** (2010). A weighted cluster kernel PCA prediction model for multi-subject brain imaging data. *Statistics And Its Interface*. 3:103-111.

19. **Guo Y** (2011). A general probabilistic model for group independent component analysis and its estimation methods. *Biometrics*. 67(4): 1532-1542.

20. Peng L, Li R, **Guo Y**, and Manatunga AK.(2011). Assessing Broad Sense Agreement between Ordinal and Continuous Measurements. *Journal of American Statistician Association*. 106: 1592-1601. **Selected as JASA Featured Article.**

21. Lyles RH, **Guo Y** and Greenland S. (2012). Reducing bias and mean squared error associated with regression-based odds ratio estimators. Journal of Statistical Planning and Inference. 142: 3235-3241.

22. **Guo, Y**, Li R, Peng L and Manatunga AK. (2013). A new agreement measures based on survival processes. *Biometrics*. 69(4):874-82.

23. **Guo Y** and Tang Li (2013). A hierarchical probabilistic model for group independent component analysis in fMRI studies. *Biometrics*. 69(4):970-81.

24. Corwin, E.J., **Guo, Y**., Pajer, K., Lowe, N., McCarthy, D., Schmiege, S., Weber, M., Pace, T., & Stafford, B.(2013). Immune Dysregulation and Glucocorticoid Resistance in Minority and Low Income Pregnant Women. *Psychoneuroendocrinology*. 38(9):1786-96.

25. Waldrop-Valverde D., **Guo Y**., Ownby R.L., Rodriguez A. and Jones D.L. Risk and Protective Factors for Retention in HIV Care. (2013). *AIDS and Behavior*. DOI 10.1007/s10461-013-0633-7.

26. Kung R.D, Reid AL, Maheshwari R, Fleischman W, **Guo Y**, McMahon MM, Nesmith E, Patel M, Lennox JL, Wehbi MA, Ford RM. (2013). Colon Cancer Screening in HIV-infected Patients Age 50 and Older: Data from an outpatient HIV clinic. *Practical Gastroenterology.*

27. Ross H, **Guo Y**, Coleman K, Ousley O, Miller A. (2013). Association of IL-12p70 and IL-6:IL-10 ratio with autistic-like behavior in 22q11.2 deletion syndrome. *Brain, Behavior and Immunity*, 31:76-81.

28. Cordova JS, Schreibmann, E., Hadjipanayis CG., **Guo Y,** Shu H, Shim H. and Holder C. (2014). Quantitative tumor segmentation for evaluation of extent of glioblastoma resection to facilitate multisite clinical trials. Translational Oncology. 7(1):40-7.

29. Shim H, Wei L, Holder C, **Guo Y**, Hu XP, Miller AH, Olson JJ. (2014). Use of high resolution volumetric MR spectroscopic imaging in assessing treatment response of GBM to an HDAC inhibitor. American Journal of Roentgenology. (Accepted).

30. Ferranti, E. P. Narayan, K. M. V., Reilly, C. M., Foster, J., McCullough, M., Ziegler, T. R., **Guo, Y.**, Dunbar, S. B. (2014). Dietary Self Efficacy predicts AHEI Diet Quality in Women with previous Gestational Diabetes. The Diabetes Educator. 40(5), 688-699.

31. Kemmer PB, **Guo Y**, Wang Y and Pagnoni G. (2015). Network-based characterization of brain functional connectivity in Zen practitioners. *Frontiers in Psychology*, 6, 603.

32. Ramjee V, **Guo Y**, Bhatia N, Vaughn L, Nell-Dybdahl C, Baer J, Wilson PWF, Le NA, Sperling LS . Rebound Kinetics of Inflammatory and Lipid Markers after LDL Apheresis: The INFLAME Study. *Apheresis.* (Invited revision).

33. Drury-Stewart D, Song M, Mohamad O, **Guo Y**, Gu X, Chen D, Yu S and Wei L. Highly efficient differentiation of neural precursors from human embryonic stem cells and benefits of transplantation after ischemic stroke in mice. Stem Cell Research & Therapy. (Revision).

34. Cordova JS, Schreibmann, E., Hadjipanayis CG., Bansal, V, Sepulveda J., **Guo Y,** Crocker I., Fox T, Shu H, Shim H. and Holder C. Adaption of Otsu Multi-level Thresholding and Fuzzy C-means Clustering for the Development of an Unbiased, Semi-automated Method of Contrast-Enhancing Tumor Volume Segmentation. Radiology. (Under Review).

35. Ran S[#] and **Guo Y**. Modeling Covariate Effects in Group Independent Component Analysis with Application to Functional Magnetic Resonance Imaging. *Annals of Applied Statistics*. (Invited Revision)

OTHER PEER-REVIEWED MANUSCRIPTS

1. Manatunga AK, Schmotzer B, Lyles RH, Small C, **Guo Y**and Marcus M (2005). Statistical issues related to modeling menstrual length. *Proceedings of the Annual Meeting of the American StatisticalAssociation*.

2. Kilts C, Harenski, K, Ely T, Alford A, Gross R, Pagnoni G, Drexler K and **Guo Y**. Neural response to demand for controlled action selection predicts relapse in treatment-seeking cocaine addicts.

3. Barham T, Egan G, Larsen B, Lawson KC, **Guo Y,** Gilles N, Brown AR, Bruce EC, Ziemer DC, Phillips LS, Musselman DL. The Prevalence of Recall and Adherence in Urban African American Patients with Type 2 Diabetes.

SELECTED PUBLISHED OR ACCEPTED ABSTRACTS

1. **Guo Y**, Gilles N, Larsen B, Caudle J, Stefansfon L, Reddy Y, Knox J, Ziemer DC, Phillips L, Musselman DL(2005). Diabetes Retinopathy and Depression in African American Patients. American Psychosomatic Society 63rd Annual Scientific Meeting, Vancouver, British Columbia, Canada.

2. **Guo Y**, Musselman DL, Manatunga AK, Gilles N, Porter MR, McDaniel JS and Nemeroff CB (2005). The Diagnosis of Major Depression in Patients with Cancer: a Comparative Approach. Society of Biological Psychiatry 60th Annual Convention & Scientific Program, Atlanta, Georgia, USA.

3. Bruce EC, **Guo Y**, McDonald W, Brown AR, Emery M, Porquez J, Manatunga AK, Bonsall R, Nemeroff CB, Musselman DL (2005). Platelet Thromboxane A_2 Secretion in Patients with Major Depression Undergoing Electroconvulsive Therapy. Society of Biological Psychiatry 60th Annual Convention & Scientific Program, Atlanta, Georgia, USA.

4. Gilles N, Ziemer DC, **Guo Y**, Barham Terrika, Larsen B, Brown AR, Vogels O, Phillips LS, Musselman DL (2005). Depression and Diabetes in Urban African Americans. Biology Psychiatry, 59: 217S.

5. Lawson KC, **Guo Y**, Gilles N, Larsen B, Brown AR, Bruce EC, Ziemer D, Phillips L, Musselman DL (2005). Trauma Exposure and PTSD in an Inner-city Diabetes Clinic. Interdisciplinary Responses to Trauma, Atlanta, GA, USA.

6. Ziemer DC, **Guo Y**, Knox J, Gilles N, Brown AR, Larsen B, Phillips LS, Musselman DL (2005). Despite Depression, Diabetes is Well Controlled in Urban African Americans Using Stepped Care Algorithms. American Diabetes Association.

7. Larsen B, Gilles N, Brown AR, Ziemer DC, **Guo Y**, Manatunga AK, Phillips LS and Musselman DL (2005). Accuracy of Self-Reported Healthcare Service Utilization in Urban, African Americans with Type 2 Diabetes. Society of Biological Psychiatry 60th Annual Convention & Scientific Program, Atlanta, Georgia, USA.

8. Ziemer DC, **Guo Y**, Barham T, Brown AR, Vogel O, Phillips LS, Musselman DL. (2007). Socio-economic Status Increases Prevalence of Depression Among African Americans with Type 2 Diabetes. Society of Biological Psychiatry 62nd Annual Convention & Scientific Program.

9. Barham T, **Guo Y**, Larsen B, Egan G, Ziemer DC, Brown AR, Gilles N, Phillips LS, Musselman DL. (2007). The Prevalence of Recall and Adherence in Urban African American Patients with Type 2 Diabetes. Society of Biological Psychiatry 62nd Annual Convention & Scientific Program.

10. Selz K, **Guo Y**, Brown AR, Bruce EC, Lawson K, Schoenbeck J, Rushing N, McDonald WM, Stowe ZN, Nemeroff CB, Musselman DL (2007). Finite Moment and Entropic Descriptors of Heart Rate Variability In Patients with Major Depression Undergoing Electroconvulsive Therapy. Society of Biological Psychiatry 62nd Annual Convention & Scientific Program.

11. **Guo Y**, Pagnoni G, Bowman FD (2007). Comparison of Methods of Group Independent Component Analysis for Multisubject fMRI Data. Human Brain Mapping conference, Chicago, IL, USA.

12. **Guo Y** and Pagnoni G (2009). A unified framework for group independent component analysis for multi- subject fMRI data. Human Brain Mapping conference, San Francisco, CA, USA.

13. Chen S., Derado G., **Guo Y**, Mayberg H and Bowman FD (2009). Classification Methods for Identifying the Neural Characteristics of Antidepressant Treatment. Human Brain Mapping conference, San Francisco, CA, USA. (**Selected for an Oral Presentation**)

14. **Guo Y**and Pagnoni G (2009). Independent Component Analysis of Multi-subject Functional Magnetic Resonance Imaging Data. The IMACS WORLD CONGRESS on Computational and Applied Mathematics & Applications in Science and Engineering.

15. Shim H, Wei L, Hwang SN, Miller AH, Brat DJ, **Guo Y**(2012). Using proton Magnetic resonance spectroscopic imaging (MRSI) to predict response to vorinostat treatment in recurrent Glioblastoma (GBM). Radiological Society of North America 2012 Annual Meeting, Chicago, Illinois, USA.

16. Corwin E., **Guo Y**, Vena C. (2012). Perineal Injury Associated with Decreased Postpartum Mood and Reduced Sleep. Southern Nursing Research Symposium. (Selected for an Podium Presentation)

17. Corwin E., **Guo Y**, McCarthy D and Lowe N. (2012). Exposure to Chronic Social Stress in the third Trimester of Pregnancy is Associated with inflammation and Elevated Diurnal Salivary Cortisol. Council for the Advancement of Nursing Science (CANS) conference, Washington, DC.

18. Corwin E., **Guo Y**. McCarthy D and Lowe N. (2012). Psychoneuroimmune Dysregulation in Socially Disadvantaged Pregnant Women. Science of Eliminating Health Disparities Summit. (Selected for an Oral Presentation)

19. Lyles R., Mitchell, E.M., **Guo Y**., Perkins, N.J. and Schisterman, E.F. (2012). Adjusting for Processing or Measurement Error in Regression Analyses with Biomarker Exposure Levels Assessed on Pooled Samples. International Society for Environmental Epidemiology Conference. Columbia, SC.

20. Waldrop-Valverde D, **Guo Y**, Ownby RL, Rodriguez R., Jones DL. (2013) Risk and Protective Factors for Retention in HIV Care. 34th Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine, San Francisco, CA. (Selected for an Oral Presentation)

21. Ferranti EP, Dunbar SB, Reilly AM Foster J and **Guo Y** (2013). Family Communication and Cardio-metabolic Risk among Women with previous Gestational Diabetes. 27th Annual Conference of Southern Nurse Research Society, Little Rock, AK. (Selected for Top Student Poster Discussion).

22. Corwin E., Dunlop A and **Guo Y**. (2013) A Biological Mechanism for Adverse Maternal-Child Outcomes in Disadvantaged Populations. Sigma Theta Tau International's 24th International Nursing Research Congress.

23. Ferranti EP, Dunbar SB, Reilly AM and **Guo Y** (2013). Diet Quality and Cardiometabolic Risk Status of Women within Five Years Following Gestational Diabetes. American Heart Association Annual Conference.

24. Holder CA., Cordova JS, Schreibmann E, Hadjipanayis CG, **Guo Y**, Shim H. (2013). Development of an Unbiased, Semi-automated Method of Tumor Volume Segmentation Using Image Processing Software in Glioblastoma before and after Resection. 99th Annual Meeting of Radiological Society North America. (Selected for an Oral Presentation).

25. Ferranti EP, Dunbar SB, and **Guo Y** (2014).Sleep quality and Type 2 diabetes risk in women with previous gestational diabetes. 28th annual Southern Nursing Research Society Conference.

26. Drenna W, Ownby RL, Dai T, **Guo Y** and Holstad M (2015). Health literacy and nmeracy Explains Race Differences in Medication-taking.

COURSES TAUGHT IN EMORY UNIVERSITY

BIOS 706 Logistic Regression and Survival Analysis (Instructor for Logistic Regression part)
    Fall, 2004, 2005
BIOS 508 Introduction to Categorical Data Analysis
    Fall, 2007-2011
BIOS 506 Biostatistical Methods I
    Fall, 2012-pres
BIOS 760R Advanced Topics in Neuroimaging Statistics (jointly taught with Dr. F.D. Bowman)
    Spring 2010
BIOS 760R & 560R   Advanced Seminar in Biostatistics.
    Fall, 2007, Spring, 2010
BIOS 797R: Directed Study: Topic: Statistical methods for agreement studies of brain images
    Summer, 2012-

COURSES TAUGHT IN CONFERENCES

Invited Short course "Statistical Modeling and Analysis of Brain Imaging Data" in International Biometrics Society (ENAR) Meeting, San Antonio, TX, March, 2009. (jointly taught with Dr. F.D. Bowman).

RESEARCH MENTORING

- **PhD Dissertation Advisor**
  1. Kemmer, Phebe Lyn, Dept. of Biostatistics and Bioinformatics, Emory University, 2011-pres.
     -Recipient of the 2014 Michael H. Kutner Distinguished Doctoral Student Award.
     -Recipient of the Student Paper Award by Workshop on Statistics in sponsored by Section on Imaging Statistics of ASA, 2015
     -Recipient of 2015 SRCOS Best Poster Award
  2. Dai, Tian,   Dept. of Biostatistics and Bioinformatics, Emory University, 2012-pres.
  3. Shi, Ran,   Dept. of Biostatistics and Bioinformatics, Emory University, 2013-pres.
     -Selected as one of the two First Place Winners in the 2015 student paper competition sponsored by Section on Statistics in Imaging of the ASA, "Modeling Covariate Effects in Group Independent Component Analysis with Applications to Functional Magnetic Resonance Imaging".
  4. Higgins, Ixavier A, Dept. of Biostatistics and Bioinformatics, Emory University, 2014-pres.

- **MPH Thesis Advisor**
  1. Natalie Rula Daya, Dept. of Biostatistics and Bioinformatics, Emory University, 2011-2012 (graduated). "Development of Agreement Measures for Studying Consistency of Menstrual Cycle Length and its Relationship to Fertility".
  2. Tianchi Zhang, Dept. of Biostatistics and Bioinformatics, Emory University, 2013-2014.(graduated) "Appling group ICA to fMRI analysis".
  3. Yikai Wang, Dept. of Biostatistics and Bioinformatics, Emory University, 2014-2015

- **MPH Student Thesis Committee**
  1. Binwei Song, MS, Department of Biostatistics, Emory University, 2004-2005
  2. Svetlana Masalovich, MS, Dept. of Biostatistics and Bioinformatics, Emory University, 2009-2010.
  3. Junhan Fan, Dept. of Biostatistics and Bioinformatics, Emory University, 2015-
  4. Jin Ming, Dept. of Biostatistics and Bioinformatics, Emory University, 2015-

- **Doctoral Student Dissertation Committee Memberships**
  Dept. of Biostatistics and Bioinformatics:
  1. Jeffrey Wiener, 2005-2009(graduated), "Evaluating Agreement Among Observers or Methods of Measurement for Quantitative Data"
  2. Doris Gao,   2009- 2010(graduated), "Assessing observer agreement for categorical observations"
  3. Gordana Derado, 2009-2011(graduated), "Methods for assessing spatial correlations in functional neuroimaging data"
  4. Yi Pan,   2010- 2011 (graduated), "Measuring observer agreement with replicated measurements"
  5. Shuo Chen,   2011- 2012 (graduated), "New statistical techniques for high-dimensional neuroimaging data"
  6. Anthony Pileggi, PhD candidate, 2012-Pres, "Generalized L_1 and L_∞ maximizations with applications to neuroimaing".
  7. Lijia Wang, PhD candidate, 2015-Pres, "Composite Conditional Likelihood".

Neuroscience Graduate Program, Graduate Division of Biological and Biomedical Sciences:
Amy Anderson   PhD candidate, 2008-2013 (graduation in April, 2013), "The effects of prenatal exposure to depression, stress, and antidepressants on brain development."

Jacob Billings   PhD candidate, 2014-

- **Academic Advisor**:
  Doctoral Students:
    Emily Mitchell,   2009-2011
    Shulin Liu,   2009-2010
    Qing He,   2010-2011

      Master Students:
        Katie Catevenis, 2010-2011, Sara Seeman, Xin Sun,

- **Other Mentoring**
  1. Summer Undergraduate Research Experience at Emory (SURE) Program:
     Terea Tolbert , Department of Mathematics, Bethune-Cookman University, May -Aug. 2011
     Rayana Braich (Co-mentoring with Dr. Opal Ousley),   May -Aug. 2012
  2. Visiting doctoral students:
     Shanshan Li, Department of Biostatistics, Johns Hopkins University, Oct. –Nov 2011

INVITED TALKS

1. "An introduction to the methods and application of exact logistic regression". Centers for Disease Control and Prevention, Atlanta, GA, August 29, 2005.

2. "Assessing agreement for survival outcomes". Department of Epidemiology, Health Policy Research and Biostatistics, University of Florida, Gainesville, FL, January, 2006.

3. "Assessing agreement for survival outcomes". Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia, PA, February, 2006.

4. "Assessing agreement for survival outcomes". The Department of Biostatistics, Bioinformatics and Epidemiology, Medical University of South Carolina (MUSC), Charleston, SC, February, 2006.

5. "Statistical Modeling Strategies for Functional Neuroimaging Data." Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC, March, 2006.

6. "Statistical Modeling Strategies for Functional Neuroimaging Data." Department of Biostatistics, Emory University, Atlanta, GA, March, 2006.

7. "A Maximum Likelihood Approach for Multi-subject Independent Component Analysis". Department of Biostatistics, Johns Hopkins University, April 18, 2007.

8. "Statistical Tests of Group Differences in Independent Component Analysis of Multisubject fMRI Data." Invited talk in Topic Contributed Session (Nonparametric and Semiparametric Methods in Brain Imaging Studies). Joint Statistical Meetings, Salt Lake City, Utah, Aug., 2007.

9. "Statistical methods for group Independent Component Analysis for Multisubject fMRI data." Division of Biostatistics, Washington University Medical School, Nov. 2007.

10. "Statistical methods for group Independent Component Analysis for Multisubject fMRI data." Dept. of Statistics, University of Georgia, Nov. 2007.

11. "A Unified Framework for Group Independent Component Analysis for Multi-subject fMRI data." In Invited Session "New Statistical Methods for Biomedical Imaging Data". International Biometrics Society (ENAR) Meeting, Arlington, VA, March, 2008.

12. "Group Independent Component Analysis of Multi-subject fMRI data: Connections and Distinctions between Two Methods." In invited session "Statistical analysis of Medical Images" *IEEE* International Conference on BioMedical Engineering and Informatics, Hainan, China, May, 2008.

13. "Statistical methods for probabilistic group independent component analysis for fMRI data," In invited session "Computational and Numerical Methods in Imaging", IMACS world conference on Computational and Applied Mathematics & Applications in Science and Engineering, University of Georgia, Athens, GA, Aug., 2009.

14. "A general probabilistic model for group independent component analysis of functional neuorimaging data." Dept. of Biostatistics, Medical College of Georgia, Augusta, GA, May, 2010.

15. "A probabilistic group independent component analysis model and a fast approximate estimation approach." In Topic Contributed Session "Statistical Analysis of Brain Signals", Joint Statistical Meetings, Vancouver, Canada, Aug., 2010.

16. "A general group ICA model for multi-subject fMRI data and its estimation methods". Department of Mathematics and Statistics, Georgia State University, Feb., 2012.

17. "A hierarchical group ICA model for estimating temporal and spatial patterns of brain networks". In Invited Session "Computational Tools and Quantitative Methods for High Dimensional Data Analysis", Society for Industrial and Applied Mathematics (SIAM) 36th Annual Conference, Huntsville, Alabama, March, 2012.

18. "A new probabilistic group ICA method for modeling between-subject variability in brain functional networks". In Topic Contributed Session "Novel developments in statistical blind source separation and independent component analysis." International Biometrics Society (ENAR) Meeting, Washington DC, April, 2012.

19. "Statistical methods for assessing agreement among correlated survival outcomes". In invited session "Censoring and Survival Analysis". Frontiers in Applied and Computational Mathematics Conference. (FACM), Newark, NJ, May, 2012.

20. "A new statistical method for modeling covariate effects in group ICA for fMRI data". In invited session "Functional Neuroimaging Decompositions", International Biometrics Society (ENAR) Meeting, Orlando, FL, March, 2013.

21. "A hierarchical group ICA regression model for fMRI data". Invited talk at the mini-symposium "Statistical Computing Methods for Medical Imaging Data Processing", Society for Industrial and Applied Mathematics (SIAM) 37th Annual Conference, Knoxville, TN, March, 2013.

22. "Group level blind source separation via independent component analysis in neuroimaging studies". In invited session "Biostatistics: recent advances in statistical neuro-imaging research". Southern Regional Council on Statistics (SRCOS) Summer Research Conference, 2013.

23. "A statistical method for predicting clinical outcomes using resting-state fMRI". Invited talk in Topic Contributed Session "Challenges and Statistical Approaches of Resting-state fMRI". Joint Statistical Meetings, Montreal, Canada, Aug., 2013.

24. "A hierarchical group ICA model for studying brain functional networks in fMRI studies". Invited talk at Department of Mathematical Sciences, Middle Tennessee State University, Oct, 2013.

25. "Statistical methods for assessing agreement among correlated survival outcomes". Invited talk in Ordered Data Analysis, Models and Health Research Methods Conference, University of Texax at Dallas, March, 2014.

26. Guo Y, "A hierarchical ICA framework for functional magnetic resonance imaging data", Statistics Alumni Symposium of Renmin University of China, June, Beijing, China.

27. "Computationally Efficient Estimation and Inference Methods for Hierarchical ICA of fMRI Data." In Invited Session " Statistical Challenges in Big Imaging Data Analysis", Joint Statistical Meetings, Boston, MA, USA, Aug., 2014.

28. "Estimating brain functional networks in fMRI: a hierarchical ICA framework vs. TC-GICA". International Mathematics Society (IMS)-China International Conference on Statistics and Probability, Kunmin,China, July, 2015.

29. "New agreement methods for accommodating censored observations" In Invited Session, 2015 International Chinese Statistical Association (ICSA) Statistics Conference, July, 2015, Shanghai, China.

CONTRIBUTED PRESENTATIONS

1. "Parametric and nonparametric estimation of menstrual cycle length". International Biometrics Society (ENAR) Meeting, Arlington, VA, March, 2002.

2. "Modeling the agreement of discrete bivariate survival times using kappa coefficient". International Conference on Reliability and Survival Analysis (ICRSA), University of South Carolina, Columbia, SC, May, 2003.

3. "Modeling menstrual cycle length using a mixture distribution." Joint Statistical Meetings, San Francisco, CA, Aug., 2003.

4. "An exploratory factor analysis of the Children's Depression Rating Scale-Revised." Eli Lilly and Company, Indianapolis, IN, Aug., 2003.

5. "Internships in Industry and the CDC" (jointly presented by **Guo Y**, Vyrostek, S and Patel R). Biostatistics Student Seminar Series, Emory University, Atlanta, GA, Jan., 2004.

6. "Modeling the agreement of multivariate survival times using a local kappa coefficient." International Biometrics Society (ENAR) Meeting, Pittsburgh, PA, March, 2004.

7. "Nonparametric estimation of the concordance correlation coefficient under univariate censoring. International Biometrics Society (ENAR) Meeting, Austin, TX, March, 2005.

8. "A nonparametric global agreement measure for discrete survival outcomes." Joint Statistical Meetings, Minneapolis, MN, Aug., 2005.

9. "A novel approach to diagnosing major depression in patients with cancer." The 3rd Annual Winship Cancer Institute International Scientific Symposium, Atlanta, GA, Oct., 2005.

10. "Prediction of post-treatment brain activity using a Bayesian Hierarchical Model. " International Biometrics Society (ENAR) Meeting, Tampa, FL, March, 2006.

11. "Comparison of Methods of Group Independent Component Analysis for Multisubject fMRI Data." Organization for Human Brain Mapping, 13th Annual Meeting, Chicago, IL, USA, June 14, 2007.

12. "A unified framework for group independent component analysis for multi- subject fMRI data." Organization for Human Brain Mapping, 15th Annual Meeting, San Francisco, CA, USA, 2009.

13. "Assessing agreement for frailty models". Joint Statistical Meetings, Vancouver, Canada, Aug., 2010.

14. "A hierarchical ICA method for modeling covariate effects on brain functional networks". Poster presentation at Organization for Human Brain Mapping (OHBM) 2015 Annual Meeting, Honolulu, Hawaii, USA. Jun., 2015.

OTHER PRESENTATIONS AS NON-PRESENTING CO-AUTHOR

*: the presenter is PhD advisee or Postdoc

1. Bowman FD and **Guo Y** (2006). "Prediction of post-treatment brain activity using a Bayesian Hierarchical Model," invited talk at Joint Statistical Meetings, Seattle, WA.

2. Bowman FD and **Guo Y**(2006). "Prediction of post-treatment brain activity using a Bayesian Hierarchical Model," invited talk at WNAR Summer Meeting, Flagstaff, AZ.

3. Patel R, Bowman FD, **Guo Y**, Derado G, Waller L and Manatunga AK (2006). Interpreting Experience-based cognition from fMRI. Joint Statistical Meetings, Seattle, WA.

4. Chen S., Derado G., **Guo Y**, Mayberg H and Bowman FD (2009). "Classification Methods for Identifying the Neural Characteristics of Antidepressant Treatment". Organization for Human Brain Mapping, 15th Annual Meeting, San Francisco, CA, USA.

5. Derado, G., Chen, S., **Guo, Y**., Mayberg, H., and Bowman, F. D. (2009). "Classification Methods for Identifying the Neural Characteristics of Antidepressant Treatment," poster presentation at the 15th annual meeting of the Organization for Human Brain Mapping, San Francisco , CA.

6. Derado G, Bowman FD, **Guo Y**, and Kilts, C (2010). "Predicting Post-treatment Neural Activity Based on Predicting Functional Neuroimaging Data". International Biometrics Society (ENAR) Meeting, New Orleans, LA.

7. Lyles R and **Guo Y**(2010). "Simple Adjustments to Reduce Bias and Mean Squared Error Associated with Regression-Based Odds Ratio and Relative Risk Estimators". International Biometrics Society (ENAR) Meeting, New Orleans, LA.

8. Peng L, Li R, **Guo Y**and Manatunga A. (2010). Assessing the "Broad Sense Agreement" between Ordinal and Continuous Measurements. International Biometrics Society (ENAR) Meeting, New Orleans, LA.

9. Wang M, Manatunga A., **Guo Y**and Peng L. (2010) Estimation of Cut-Points on a Continuous Scale According to a Categorical Scale. International Biometrics Society (ENAR) Meeting, New Orleans, LA.

10. Tolbert T and **Guo Y**# (2011). "Analysis of subject-specific brain functional networks in an fMRI study". Summer Undergraduate Research Experience at Emory (SURE) Program. #: corresponding author.

11. Limin Peng, Ruosha Li, **Guo Y**, Amita Manatunga. Broad Sense Agreement between Continuous Measurements. International Biometrics Society (ENAR) Meeting, 2011.

12. Braich R, Ousley O and **Guo Y**. (2012). "Alterations of gray matter volume and functional networks in Autism spectrum disorder". Summer Undergraduate Research Experience at Emory (SURE) Program.

13. Kemmer P*, **Guo Y** and Bowman FD. (2013). "Investigation of Structural Connectivity Underlying Functional Connectivity using fMRI data". International Biometrics Society (ENAR) Meeting, Orlando FL.

14. Dai T*, **Guo Y,** Peng L and Manatunga (2013). "New agreement measures based on bivariate hazard functions ". International Biometrics Society (ENAR) Meeting, Orlando FL.

15. Ran, S.* and **Guo Y.** (2014). "Modeling covariate effects in group independent component analysis with applications to functional magnetic imaging". International Biometrics Society (ENAR) Meeting, Baltimore, MD.

16. Kemmer, P.B.*, **Guo, Y**., and Bowman, F. D.(2014). "Statistical Approaches for Exploring Brain Connectivity with Multi-Modal Neuroimaging Data." International Biometrics Society (ENAR) Meeting, Baltimore, MD.

17. Dai T* and **Guo Y** (2014). "A local agreement index based on bivariate hazard functions for survival outcomes ". International Biometrics Society (ENAR) Meeting, Baltimore, MD.

18. Dai T* and **Guo Y** (2015). "Statistical methods for assessing reproducibility in multi-center neuroimaging studies". International Biometrics Society (ENAR) Meeting, Miami, FL.

19. Rahman AF*, Peng L, **Guo Y** and Manatunga AK (2015). **"**Nonparametric Regression of Agreement Measure Between Ordinal and Continuous Outcomes". International Biometrics Society (ENAR) Meeting, Miami, FL.

20. Dai T*, Guo Y, Peng L and Manatunga AK . "Statistical Methods for Assessing Reproducibility in Multicenter Neuroimaging Studies." Poster presentation in NSF/Anderson Student Poster Session session. SRCOS Summer Research Conference, Carolina Beach, NC, USA, Jun., 2015.

21. Dai T*, Guo Y, Peng L and Manatunga AK . "Nonparametric Estimation of Agreement Measure Between Ordinal and Censored Continuous Outcomes." Oral presentation in session "Analysis of ordinal data". Joint Statistical Meetings, Seattle, WA, USA, Aug., 2015.

22. Shi, R* and Guo, Y "Modeling Covariate Effects on Group Independent Component Analysis with Application to Functional Magnetic Resonance Imaging". STEM Symposium, Emory University, Atlanta, GA, April., 2015

23. Wang, Y*. and Guo, Y "Statistical methods for characterization and classification of brain functional networks: with application to Philadelphia Neurodevelopmental Cohort study". Poster Presentation for the Charles C. Shepard Award, Atlanta, USA, May, 2015.

24. Kemmer PB*, Guo Y, and Bowman FD. "Statistical Approaches for Exploring Brain Connectivity with Multi-Modal Neuroimaging Data". Poster Presentation at the Emory University STEM Symposium, Atlanta, GA, March 2015.

25. Kemmer PB*, Guo Y, and Bowman FD. "Statistical Approaches for Exploring Brain Connectivity with Multi-Modal Neuroimaging Data". Invited talk at Statistical Methods in Imaging Workshop, Ann Arbor, MI, May 2015. **Student Paper Award Winner**.

26. Kemmer PB*, Guo Y, and Bowman FD. "Statistical Approaches for Exploring Brain Connectivity with Multi-Modal Neuroimaging Data". Poster Presentation at the SRCOS Summer Research Conference, Carolina Beach, NC, June 2015. **SRCOS Best Poster Award**.

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PROFESSIONAL ACTIVITIES

- **Conference session chairs and organizers**

  2015   Organizer and Chair of the Topic-Contributed session "Recent advances in Independent Component Analysis with Applications to Imaging Studies" at Joint Statistical Meeting (JSM), Seattle, Aug, 2015.

  2009   Chair of invited session "Statistical issues in brain imaging data" at International Biometric Society (ENAR), San Antonio, TX, 2009

  2008   Organizer of the invited session " Novel Statistical methods in Biomedical Imaging" at ENAR, Crystal City, VA, 2008.

  2007   Chair of session "Classification/Design of Experiments/Causal inference" at Tenth Meeting of New Researchers Conference in Statistics and Probability, University of Utah, Salt Lake City, UT, July, 2007.

  2005   Chair of contributed session "Recurrent events, competing Risks, and other challenges in survival analysis", Joint Statistical Meeting, Minneapolis, MN

- **Department of Biostatistics and Bioinformatics Committees**

  2012   Chair, BIOS PhD Methods Qualifying Exam Subcommittee

2011-present   Member, Biostatistics Awards Nomination Committee
2009   Chair, Tenured and Tenure-Track Faculty Monthly Meeting
2005-2010, 2011-2012 Member, PhD Qualifying Examination Committee
2007-2009, 2011-2012   Member, Curriculum Committee
2009-present   Member, Computer Advisory Committee
2006-2007,2011   Member, Diversity Committee
2007-present   Founding Faculty Member, Center for Biomedical Imaging Statistics (CBIS)

- **School and University Committees**
    2008 and 2009   Emory University Women's Club Award Committee
    2012 and 2013   Shepard Award Committee, The Rollins School of Public Health

PROFESSIONAL MEMBERSHIP

2005- present   International Chinese Statistics Association
2002- present   International Biometrics Society
2002- present   American Statistical Association
2003- present   Institute of Mathematical Statistics
1997- present   Society of Actuaries