CURRICULUM VITAE
Ying Guo, Ph.D.

Dept. of Biostatistics and Bioinformatics, Emory University, 1518 Clifton Rd, Atlanta, GA, 30322
Citizenship: U.S.
E-mail: yguo2@emory.edu
Web Site: https://www.yingguo.us

RESEARCH INTERESTS

Statistical Research Interests
- Imaging statistics, Brain network and connectivity analysis
- High dimensional data analysis, Independent component analysis, Dimension reduction, Predictive modeling
- Agreement/ reliability / reproducibility methods
- Multivariate data analysis

Collaborative Research Interests
- Neuroimaging
- Brain Health, Psychiatry, Mental Health
- Brain cancer

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

- 2019-pres.   Professor, Department of Biostatistics and Bioinformatics, The Rollins School of Public Health, Emory University
- 2016-pres.   Director, Center for Biomedical Imaging Statistics (CBIS) The Rollins School of Public Health, Emory University

- 2014-2015   Acting Director, Center for Biomedical Imaging Statistics (CBIS)
  The Rollins School of Public Health, Emory University

- 2013-2019   Associate Professor, with tenure
  Department of Biostatistics and Bioinformatics, The Rollins School of Public Health, Emory University

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

- 2007-pres.   Founding Faculty 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   Student Statistician/Research Assistant
  Department of Biostatistics, Emory University

- 2002-2004   Student 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

- Fellow of the American Statistical Association (ASA), 2018
- Featured in Emory Health Sciences News "Trio in biostatistics: 'Role models for us all' "
- Featured in Emory Rollins Magazine "Finding Mental Disorders with Math"
- Honorable Mention in Biostatistics Teaching Award: Course "Biostatistical Methods I" [2013,2018], Course "Advanced Topics in Neuroimaging Statistics" [2016], Department of Biostatistics and Bioinformatics, Emory University
- Selected Graduate Student Advisee Special Honors:

  - Dissertation advisor for Josh Lukemire: Winner of 2021 ASA Statistics in Imaging Section Student Paper Competition, RSPH 2020 Livingston Fellow
  - Dissertation advisor for Ixavier Higgins, 2017 Statistical Methods in Imaging Conference Student Paper Award Winner, RSPH 2018 Livingston Fellow
  - Dissertation advisor for Yikai Wang: 2018 ENAR Distinguished Student Paper Award winner, First-Place Winner of 2018 ASA Statistics in Imaging Section Student Paper Competition
  - Dissertation advisor for 2016 ASA Statistics in Imaging Section Student Paper Competition Runner-up Award winner, Tian Dai.

- Dissertation advisor for First-Place Winner of 2015 ASA Statistics in Imaging Section Student Paper Competition, Ran Shi (declined due to another award).
- Dissertation advisor for 2015 ASA Section on Imaging Statistics Workshop Student Paper Award Winner, Phebe B. Kemmer

- Paper listed in ScienceDirect's Top 25 hottest articles of *NeuroImage,* 2008
- R.L. Anderson Award of Summer Research Conference on Statistics, 2005
- International Biometric Society's Eastern North American Region (ENAR) Distinguished Student Paper Award, 2004
- Travel award by the International Conference on Reliability and Survival Analysis (ICRSA), 2003
- Wu Yuzhang Scholarship of Renmin University (highest student award of Renmin Univ.), 1998
- Outstanding Student Award by National Bureau of Statistics of China, 1997
- Metropolitan Life Scholarship by Metropolitan Life Insurance Company (MetLife) of US, 1997
- World's highest prize among undergraduate students in the CALCULUS AND LINEAR ALGEBRA examination by SOA (Society of Actuaries, USA), 1996
- University Fellowship, Renmin University of China, 1996

PROFESSIONAL ORGANIZATIONS, SOCIEITIES AND SERVICE

<u>Invited or Elected Positions</u>

- Chair-Elect 2022, American Statistical Association(ASA) Statistics in Imaging Section
- Organizing Committee Member, The National Institute of Mental Health (NIMH) <u>Workshop on Advanced Statistical Methods and Dynamic Data Visualizations</u>, 2021
- Standing Member, NIH Emerging Imaging Technologies in Neuroscience (EITN) Study Section, 2020-2024
- External Advisor Board, The Penn Statistics in Imaging and Visualization Center, 2019-2022
- President, Georgia Chapter of American Statistical Association, 2017-2018
- Member, International Biometry Society ENAR Distinguished Student Paper Award Committee, 2017-2020.
- Program Chair, American Statistical Association(ASA) Statistics in Imaging Section [2015, Program Chair-Elect, 2016 Program Chair].
- Member, ASA GA Chapter Student Poster Competition Committee, May, 2017

<u>Selected Conferences Activities</u>

2020-2021 Principal Organizer, <u>Statistical Methods in Imaging (SMI) 2021 Conference</u>

2017 Organizer and Chair of the invited session "Statistical methods for multiple

neuroimaging modalities" at The 3rd Annual Conference on Statistical Methods in Imaging, Pittsburgh, PA.

2016   Organizer of Section on Statistics in Imaging Roundtable Discussions at Joint Statistical Meeting (JSM), Chicago, IL.

2016   Organizer of the invited session "Recent Advances in Statistical Methods for Challenging Problems in Neuroimaging Applications" at International Chinese Statistical Association (ICSA) Applied Statistics Symposium, Atlanta, GA, 2016

2016   Organizer of the invited session "New Statistical Methods for Challenging Problems in Imaging Statistics" at 2nd Annual Conference on Statistical Methods in Imaging, Denver, Colorado, 2016.

2016   Organizer of the Topic-Contributed session "Statistics in Imaging Section Student Paper Awards" at Joint Statistical Meeting (JSM), Chicago, Aug, 2016.

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

Editorial Board

2021-pres.   *Statistics in Biosciences,* Associate Editor

2019-pres.   *Biometrics,* Associate Editor

2013-2015   *Psychosomatic Medicine,* Statistical Editor

Journal Referee

Journal of the American Statistical Association (JASA)   *NeuroImage*
Journal of the Royal Statistical Society: Series C   *Human Brain Mapping*

Statistica Sinica	*Transactions on Medical Imaging*
Canadian Journal of Statistics	*Journal of Magnetic Resonance Imaging*
Biometrics	*Brain Imaging and Behavior*
Biostatistics	*PLOS ONE*
Lifetime Data Analysis	*Psychometrika*
Statistics and its Interface	*Journal of Clinical Oncology*
Annals of Applied Statistics	
Scandinavian Journal of Statistics	*International Journal of Epidemiology*
Journal of Neuroscience Methods	*Annals of Epidemiology*
	Internrational Journal of Psychophysiology

Grant Review Activities

- National Science Foundation (NSF), Methodology, Measurement, and Statistics (MMS) Program, , 2009.
- National Science Foundation (NSF), Cognitive Neuroscience Program, 2011.
- Canadian Breast Cancer Foundation (CBCF), Imaging-based Earlier Detection of Breast Cancer Program, 2012.
- Emory University Research Committee (URC), 2005, 2011, 2013.
- NIH, National Institute of Biomedical Imaging and Bioengineering (NIBIB), Biomedical Technology Resource (P41) Center (BTRC), 2014 and 2015.
- NIH, National Institute of Biomedical Imaging and Bioengineering (NIBIB), K-award applications, 2015.
- NIH, ZRG1 BST-N (55) BD2K Open Educational Resources and Courses for Skills Development (R25), 2015.
- NIH, BD2K Courses for Skills Development in Biomedical Big Data Science (R25), 2016.
- NIH, P41 Biomedical Technology Research Resource (BTRR) Center Grant, 2016
- Biostatistics Development Awards, Department of Biostatistics, Vanderbilt University, 2017, 2019
- NIH, NINDS ZNS1 SRB-G (19), Network Clinical Trials, 2018
- Georgia Clinical and Translational Science Alliances (CTSA) Pilot Grant Program, 2019
- NIH, Emerging Imaging Technologies in Neuroscience (EITN) Study Section, 2019, 2020,
- NIH, Special Emphasis Panel ZMH1 ERB-S (07) R, Dysregulation and Proximal Risk for Suicide, 2020

Service

- **Department of Biostatistics and Bioinformatics Committees**

2007	Founding Member, Center for Biomedical Imaging Statistics (CBIS)
2006-2007,2011	Diversity Committee
2009-2013	Computer Advisory Committee
2007-2009, 2011-2012	Curriculum Committee
2005-2010, 2011-2012	PhD Qualifying Examination Committee
2009	Chair, Tenured and Tenure-Track Faculty Monthly Meeting
2012	Chair, BIOS PhD Methods Qualifying Exam Subcommittee

2011-2017	Biostatistics Awards Nomination Committee
2016-present	PhD Recruitment Committee
2015-2017	Tenured and Tenure Track Faculty Search Committee
2017-2018	Co-chair, Biostatistics Research Computing Working Group
2018- present	Tenured Track Faculty Search Committee
2018- present	Co-chair, Biostatistics High Performance Computing Committee
2018- present	BIOS PhD Qualifying Exam Committee

- **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
2018-pres.	RSPH Computing and Data Science Advisory Group

Professional Membership

1997- 2000	Society of Actuaries
2003- present	Institute of Mathematical Statistics
2002- present	International Biometrics Society
2002- present	American Statistical Association
2005- present	International Chinese Statistics Association

RESEARCH FUNDING

Selected Current Projects

Principal Investigator: Guo, Y (with MPI: Kang, J.) "Statistical ICA Methods for Analysis and Integration of Multi-dimensional Data", NIH R01, 2014-2025

Multiple Principal Investigator (**MPI**)**: Guo, Y** (with MPIs: Manatunga, A.K. and Peng, L**.**)**, "**Statistical methods for analyzing complex, multi-dimensional data from cross-sectional and longitudinal mental health studies", NIH R01, 2019-2024.

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

Principal Investigator: Guo, Y, Resting-state fMRI analysis for treatment study for fibromyalgia pain, U.S. Department of Veterans Affairs (VA) IPA award (Project PI: Woodbury, A.), 2018-2019.

Principal Investigator: Guo, Y, Randomized Double-Blind Placebo-Controlled Trial: fMRI Assessment of Percutaneous Electrical Neural Field Stimulation for Fibromyalgia in Veterans. U.S. Department of Veterans Affairs (VA) IPA award (Project PI: Woodbury, A.), 2019-2024.

Co-Investigator: Guo Y, (PI: Kundu, S.), Integrative brain network-based analysis for heterogeneous and multimodal neuroimaging data. NIH R01, 2019-2024.

Co-Investigator: Guo Y, (PI: Li), Mapping the developing infant connectome, NIH R01, 2019-2024.

Co-Investigator: Guo Y, (PI: Li), Mapping the infant brain developmental connectome: temporally precise growth trajectories of changing infant brain topology. NIH R01, 2020-2024.

Co-Investigator: Guo Y, (PI: Mulle), Neuroimaging of the schizophrenia-associated 3q29 deletion, NIH R01, 2019-2023.

Co-Investigator: Guo Y(PI: Patel, R.), " Red Cell Transfusion, Severe Anemia and Necrotizing Enterocolitis", NIH K23, 2016-2020.

Co-Investigator: Guo Y (PI: Waldrop-Valverde, D.), " Healing Hearts, Mending Minds in Older Persons Living with HIV ", NIH R01, 2015-2019.

Co-Investigator: Guo Y (PI: Taylor), "Georgia Clinical and Translational Science Alliance (GaCTSA) ", NIH UL1, 2017-2022.

Co-Investigator: Guo Y, (PI: Shim, H.), Whole-brain spectroscopic MRI to monitor quantitative response of immunotherapy combined with stereotactic radiosurgery on brain metastasis in melanoma patients, NIH U01, 2018-2023.

Co-Investigator: Guo Y (PI: Kelloz), The contribution of QPPs to functional connectivity
, NIH R01. 2018-2023.

Completed
Co-Investigator: Guo Y (PI:Waller), "Atlanta Summer Institute for Research Education in Biostatistics ", NIH UL1, 2016-2019.

PI: Guo, Y "Statistical ICA Methods for Analysis and Integration of Multi-dimensional Data Diversity Supplement", NIH, 2016-2019 (with NCE). (Candidate: I. Higgins)

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

Biostatistician: Guo Y (PI: Waldrop-Valverde, D.), " Effects of Health Literacy on Health Disparities in HIV Clinical Outcomes ", NIH R01, 2011-2017

Co-Investigator: Guo Y(PI: Yu, S.), " Sub Award for Phase II Stroke Treatment by Chemically-Induced Hypothermia", NIH, 2010-2017

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

Co-Investigator: Guo Y (PI: Stephens), "Atlanta Clinical and Translational Science Institute (ACTSI) ", NIH UL1, 2007-2016.

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

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. Direct costs for year: $175,000. Indirect costs for year: $85,330, 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

*: denotes corresponding author/senior author
†: denote students/postdocs advised/co-advised

Journal Articles (Statistical Methodology)

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

3. **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.

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

5. 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.

6. **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.

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

8. **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.

9. **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.**

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

11. 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.

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

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

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

15. 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.**

16. 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.

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

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

19. 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

20. Wang, Y[†], Kang J, Kemmer, PB and **Guo, Y***. (2016). An efficient and reliable statistical method for estimating functional connectivity in large-scale brain networks using partial correlation. *Frontiers in Neuroscience*. 10:123. doi: 10.3389/fnins.2016.00123.

21. Peng, L., Manatunga, AK, Wang, M., **Guo, Y**. and Rahman AF (2016). A general approach to categorizing a continuous scale according to an ordinal outcome. *Journal of Statistical Planning and Inference*, May 1;172:23-25.

22. Shi, R[†] and **Guo, Y***. (2016). Investigating differences in brain functional networks using hierarchical covariate-adjusted independent component analysis. *Annals of Applied Statistics*. 10(4): 1930-1957. **An earlier version of the paper was selected for the First-Place winner of the 2015 Student Paper Competition, American Statistical Association (ASA) Statistics in Imaging Section.**

23. Rahman, AF[†], Peng, L., Manatunga, AK, **Guo, Y** (2017). Nonparametric regression method for broad sense agreement. *Journal of nonparametric statistics*, 29(2):280-300.

24. Dai, T[†] and **Guo, Y*** (2017). Predicting Individual Brain Functional Connectivity Using a Bayesian Hierarchical Model. *NeuroImage*.147(15): 772–787. **An earlier version of the paper was the Second-Place winner of the 2016 Student Paper Competition, American Statistical Association (ASA) Statistics in Imaging Section.**

25. Dai, T[†], **Guo, Y***, Peng, L., Manatunga, AK (2018). A local agreement pattern measure based on hazard functions for survival outcomes. *Biometrics*, 74(1):86-99.

26. Kundu, S., Ming, J., Pierce, J. McDowell, J. and **Guo, Y***, (2018), Estimating Dynamic Brain Functional Networks Using Multi-subject fMRI Data, *NeuroImage*, 183: 635-649.

27. Higgins, IA[†], Kundu, S. and **Guo, Y.**, (2018). Integrative Bayesian Analysis of Brain Functional Networks Incorporating Anatomical Knowledge. *NeuroImage*, 181: 263-278.

28. Kemmer, P[†], Wang, Y., Bowman, F.D., Mayberg, H. and **Guo, Y*** (2018). Evaluating the strength of structural connectivity underlying brain functional networks. *Brain Connectivity*. 8(10), pp.579-594.

29. **Guo, Y**, Wang Y., Marin, T., Easley, K., Patel, R.M., Josephson, C.D. (2019). Statistical Methods for Characterizing transfusion-related changes in regional oxygenation using Near-infrared spectroscopy (NIRS) in preterm infants. *Statistical Methods in Medical Research*. *28*(9), pp.2710-2723.

30. Qiu, Z[†], Peng, L, Manatunga, AK, **Guo, Y**. (2019). A Smooth Nonparametric Approach to Determining Cut-Points of a Continuous Scale. *Computational Statistics and Data Analysis*. 134, 186-210.

31. Wang, Y. [†] and **Guo, Y*** (2019). A hierarchical independent component analysis model for longitudinal neuroimaging studies. *NeuroImage*. 189(1), 380-400. **An earlier version of the paper was one of the winners of 2018 ENAR Distinguished Student Paper Award and the First-Place Winner of the 2018 Student Paper Competition of American Statistical Association (ASA) Statistics in Imaging Section.**

32. Hu, R., Qiu, D., **Guo, Y**., Zhao, Y., Leatherday, C., Wu, J., Oshinski, J. and Allen, J. (2019). Variability of Resting State Functional MRI Graph Theory Metrics Across 3T Platforms. *Journal of Neuroimaging*, 29(3), 283-417. PMCID: PMC6506355.

33. Higgins, IA[†], Kundu, S., Choi, KS., Mayberg, H., **Guo, Y**[*] (2019), A Differential Degree Test for Comparing Brain Networks. *Human Brain Mapping*, 1-19. https://doi.org/10.1002/hbm.24718.

34. Wei,B., Dai,T., Peng, L., **Guo, Y**., Manatunga, AK (2020), A New Functional Representation of Broad Sense Agreement. Statistics and Probability Letters, 158, p.108619.

35. Mejia, A., Nebel, M.B., Wang, Y., Caffo, B. and **Guo, Y*** (2019). Template independent component analysis: targeted and reliable estimation of subject-level brain networks using big data population priors. Journal of the American Statistical Association, Nov 20: 1-27.

36. Dai, T[†], **Guo, Y***, Peng, L., Manatunga, AK (2020). Nonparametric Estimation of Broad Sense Agreement Between Ordinal and Censored Continuous Outcomes. *Statistics in Medicine*, 39(14), 1952-1964.

37. Lukemire, J. [†], Kundu, S., Pagnoni, G. and Guo, Y., 2020. Bayesian joint modeling of multiple brain functional networks. *Journal of the American Statistical Association*, pp.1-13

38. Lukemire, J[†] , Wang, Y., Verma, A. and **Guo, Y.*** (2020). HINT: A Hierarchical Independent Component Analysis Toolbox for Investigating Brain Functional Networks using Neuroimaging Data. *Journal of Neuroscience Methods*. 341: 108726. DOI. arXiv

39. Keilholz, S., Maltbie, E., Zhang, X., Yousefi, B., Pan, W., Xu, N., Nezafati, M., LaGrow, TJ, **Guo, Y.** (2020). Relationship between basic properties of BOLD fluctuations and calculated metrics of complexity in the Human Connectome Project. *Frontiers in Neuroscience*, 14: 939.

40. Chen, H., **Guo, Y.**, He, Y., Ji, J., Liu, L., Shi, Y., Wang, Y., Yu, L., Zhang, X. (2021). Simultaneous Differential Network Analysis and Classification for Matrix-variate Data with Application to Brain Connectivity. *Biostatistics*, Mar 26:kxab007. doi: 10.1093/biostatistics/kxab007. Epub ahead of print.

41. Wu,B. [†], Pal, S., Kang,K. and **Guo,Y.*** (2021+). Distributional Independent Component Analysis for Diverse Neuroimaging Modalities. *Biometrics*, Accepted. **Selected as a Discussion Paper.**

42. Kan, X., Cui, H., **Guo, Y.** and Yang, C. (2021). Effective and Interpretable fMRI Analysis via Functional Brain Network Generation. *Interpretable Machine Learning in Healthcare: The International Conference on Machine Learning (ICML-IMLH)*.

43. Hu, Y., Zeydabadinezhad, M., Li, L. and **Guo,Y.*** (2021+). A multimodal multilevel neuroimaging model for investigating brain connectome development. Journal of the American Statistical Association, Invited Revision.

44. Yikai Wang, Ying Guo (2021+).   LOCUS: A Novel Decomposition Method for Brain Network Connectivity Matrices using Low-rank Structure with Uniform Sparsity. Under review.

Journal Articles (Biomedical Application)

1. **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.

2. **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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.* pp32-42.

9. 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.

10. Waldrop-Valverde D., **Guo Y**., Ownby R.L., Rodriguez A. and Jones D.L. Risk and Protective Factors for Retention in HIV Care. (2014). *AIDS and Behavior.* 18(8):1483-91.

11. 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.

12. 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, 203.2: W158-W165.

13. 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.

14. Zuniga, J.A., Yoo-Jeong, M., Dai, T**., Guo, Y**. and Waldrop-Valverde, D., (2016). The role of depression in retention in care for persons living with HIV. AIDS patient care and STDs, 30(1), pp.34-3.

15. Darcy-Mahoney, A., Minter, B., Higgins, M., **Guo, Y**., Zauche, L.H. and Hirst, J., (2016). Maternal and Neonatal Birth Factors Affecting the Age of ASD Diagnosis. Newborn and Infant Nursing Reviews, 16(4), pp.340-347.

16. Darcy-Mahoney, A., Minter, B., Higgins, M., **Guo, Y**., Williams, B., Head, L. M., & Birth, K. (2016). Probability of an Autism Diagnosis by Gestational Age. Newborn and Infant Nursing Reviews: 16(4): 322-326.

17. Cordova, J.S., Gurbani, S. S., Holder, C.A. Olson, J.J., Schreibmann, E., Shi, R., **Guo, Y**., Shu, H.G., Shim, H., Hadjipanayis, C.G. (2016) Semi-quantitative volumetric and morphological assessment of glioblastoma resection with fluorescence-guided surgery. *Molecular Imaging and Biology*, 18.3: 454–462.

18. Rahman, AF[†], Manatunga, AK, **Guo Y,** Peng, L., Warnock, M., Ressler, K.J., Jovanovic, T. (2018). A Latent Class Analysis of PTSD Symptoms Among Inner City Primary Care Patients. *Journal of Psychiatric* Research, 98:1-8.

19. Wheat, J., Myint, T., **Guo, Y**., Kemmer, P., Hage, C., Terry, C., Azar, M.M., Riddell, J., Ender, P., Chen, S. and Shehab, K., (2018). Central nervous system histoplasmosis: Multicenter retrospective study on clinical features, diagnostic approach and outcome of treatment. *Medicine*, 97(13).

20. Marin, T., Patel, R., Josephson, C., Roback, J., Stowell, S., **Guo, Y**., Easley, K., Warnock, M. and Skvarich, J., Josephson, C.D. (2018). Does Red Blood Cell Irradiation and/or Anemia Trigger Intestinal Injury in Premature Infants with Birth Weight ≤ 1250 grams? An Observational Birth Cohort Study. *BMC Pediatrics*, **18**:270.

21. Waldrop-Valverde, D., Murden, R.J., **Guo, Y**., Holstad, M., & Ownby, R.L. (2018). Racial disparities in HIV antiretroviral medication management are mediated by health literacy. *Health Literacy Research and Practice*, **2(4):e205-e213**

22. Woodbury, A., Krishnamurthy, V., Gebre, M., Napadow, V., Bicknese, C., Liu, M., Lukemire, J. Kalangara, J., Cui, X., **Guo, Y**., Sniecinski, R. and Crosson, B. (2020), Feasibility of Auricular Field Stimulation in Fibromyalgia: Evaluation by Functional Magnetic Resonance Imaging. Pain Medicine. Accepted.

23. Patel, R.M, Lukemire, J., Shenvi, N., Arthur, C., Stowell, S.R. , Sola-Visner, M., Easley, K., Roback,J.D., **Guo, Y.** Josephson, C.D. Association between Blood Donor Sex and Age with Outcomes in Transfused Very Low Birth Weight Infants. (2021). *JAMA*, Accepted.

24. Xiao, C., Dai, T., Hanlon, A., **Guo Y**, Bruner, D.W.. Comparison of Missing Data Imputation Techniques in Factor Analysis. *Journal of Nursing Measurement*, 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. 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**)

12. **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.

13. 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.

14. 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)

15. 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.

16. 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)

17. 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.

18. 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)

19. 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).

20. 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.

21. 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.

22. 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).

23. 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.

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

25. Patel, R., Lukemire, J., Guo, Y., Easley, K., Shenvi, N., Josephson, C., Association of Blood Donor Sex and Age with Outcomes in Transfused Very Low Birth Weight Infants, the Pediatric Academic Societies (PAS) 2021 Meeting.

26. Wu, B., Guo, Y. and Kang, J. (presenting author). Bayesian Spatial Blind Source Separation via the Thresholded Gaussian Process. International Conference on Econometrics and Statistics (EcoSta 2021), June, Hong Kong.

SOFTWARE

1. *MMM*: multimodal multilevel model. https://github.com/Emory-CBIS/MMM
2. *DICA*: Distributional ICA. https://github.com/Emory-CBIS/DICA
3. *DDT*: A Matlab toolbox for the Differential Degree Test. https://github.com/Emory-CBIS/DDT

4. *HINT*: A Matlab GUI-based Hierarchical INdependent component analysis Toolbox.
   https://github.com/Emory-CBIS/HINT
5. *DensParcorr*: an R package for Dens-Based Method for Partial Correlation Estimation in Large Scale Brain Networks.
   https://cran.r-project.org/web/packages/DensParcorr/index.html.
6. *siGGM*: an R package for structurally informed Gaussian Graphical Model.
   https://github.com/Emory-CBIS/siGGM
7. *NIRStat*: an R package for Studying Near-Infrared Spectroscopy (NIRS) Time Series
   https://cran.r-project.org/web/packages/NIRStat/index.html
8. *CCPD*: a Matlab toolbox for Connectivity Change Point Detection.
   https://github.com/Emory-CBIS/CCPD
9. *nonpar*.ccc.est: an R package for nonparametric estimation of Lin's concordance correlation coefficient (CCC) in the presence of censored observations.
   http://web1.sph.emory.edu/users/yguo2/software.html

COURSES TAUGHT IN EMORY UNIVERSITY

BIOS 760R Advanced Topics in Neuroimaging Statistics
        Spring 2010, 2016
BIOS 506 Biostatistical Methods I
        Fall, 2012-2015, 2017-2018
BIOS 508 Introduction to Categorical Data Analysis
        Fall, 2007-2011
BIOS 706 Logistic Regression and Survival Analysis (Instructor for Logistic Regression part)
        Fall, 2004, 2005
BIOS 760R & 560R   Advanced Seminar in Biostatistics.
        Fall, 2007, Spring, 2010
BIOS 797R: Directed Study
         2014-pres.

COURSES TAUGHT IN CONFERENCES

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).

Short Course "Statistical Methods for Brain Network Analysis Using Multimodal Imaging Data" in International Biometrics Society (ENAR) Meeting, 2017. (Jointly taught with former Phd student Phebe B. Kemmer)

RESEARCH ADVISING/MENTORING

- **Junior Faculty**
  1. Benjamin Risk, PhD, Assistant Professor of Biostatistics and Bioinformatics, Emory University. 2018-present. (Mentor on Dr. Risk's Dean's Pilot Award).
  2. Suprateek Kundu, PhD, Assistant Professor of Biostatistics and Bioinformatics, Emory University. 2014-present.
  3. Jian Kang, PhD, Assistant Professor of Biostatistics and Bioinformatics, Emory University. 2011-2014.
  4. Albert Anderson, MD, Assistant Professor of Medicine, Emory School of Medicine (Mentor on NIH K23 award)
  5. Patel, Ravi Mangal, MD, Assistant Professor of Pediatrics, Division of Neonatology, Department of Pediatrics, Emory School of Medicine (Mentor on NIH K23 award)
  6. Trotti, Lynn Marie, MD, Assistant Professor of Neurology, Emory School of Medicine. (Mentor on NIH K23 award)
  7. Anna Woodbury, MD, Assistant Professor of Anesthesiology, Emory School of Medicine. (Mentor on NIH K award)
  8. Fengqing (Zoe) Zhang, Ph.D., Assistant Professor, Department of Psychology, Drexel University (Mentor on Dr. Zhang's Career Development Award)
  9. Trofimova, Anna, MD, PHD, Radiology and Imaging Sciences, Emory School of Medicine (Mentor on Dr. Trofimova's RSNA Fellow Award).

- **Post-doctoral Fellow**
  1. AKM F. Rahman, 2014-2016 (joint with Amita K. Manatunga and Limin Peng), Placement: Assistant Professor, Department of Biostatistics, The University of Alabama at Birmingham.
  2. Subhadip Pal, 2015-2017 (joint with Jian Kang), Placement: Assistant Professor, Department of Bioinformatics and Biostatistics, University of Louisville.
  3. Ben Wu, 2017-2020. (joint with Jian Kang), Placement: Assistant Professor, Department of Statistics, Renmin University of China.
  4. Dayu Sun, 2020- (joint with Amita K. Manatunga and Limin Peng)
  5. Joshua Lukemire, 2021-pres.

- **Doctoral Students**
  1. Kemmer, Phebe, Dept. of Biostatistics and Bioinformatics, Emory University, (Joint with F. D. Bowman), Graduated in 2006.
  Dissertation: "Statistical Approaches for Exploring Brain Connectivity with Multimodal Neuroimaging Data"
     -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
     -Recipient of 2016 SAMSI Computational Neuroscience Transition Workshop Student Travel Award

  2. Dai, Tian, Dept. of Biostatistics and Bioinformatics, Emory University, (Graduated in 2006).

Dissertation: "Agreement methods for complex outcomes in biomedical studies "

- Second-place Winner in the 2016 ASA Statistics in Imaging Section Student Paper Competition

3. Shi, Ran, Dept. of Biostatistics and Bioinformatics, Emory University, (joint with Jian Kang), Graduated in 2006.
   Dissertation: "Some Novel Statistical Methods for Neuroimaging Data Analysis"

   - First Place Winner in the 2015 student paper competition sponsored by Section on Statistics in Imaging of the ASA (declined due to acceptance of another award),
   - Recipient of 2016 ENAR Distinguished Student Paper Award

4. Higgins, Ixavier A, Dept. of Biostatistics and Bioinformatics, Emory University, (Joint with S. Kundu), 2014-2019.
   Dissertation: "Analysis of Functional Brain Networks"

   - Honorable Mention, Ford Foundation Fellowships, 2015
   - Awarded Candidate of NIH Supplementary Diversity Program, 2016-2018
   - Recipient of the Student Paper Award at Annual Conference on Statistical Methods in Imaging sponsored by ASA Imaging Section, 2017
   - Recipient of RSPH Livingston Fellow, 2018

5. Yikai Wang, Dept. of Biostatistics and Bioinformatics, Emory University, 2016-pres.
   - Winner of the ASA GA Chapter Student Poster Competition, 2017, 2018
   - Recipient of 2018 ENAR Distinguished Student Paper Award
   - First-Place Winner of 2018 ASA Statistics in Imaging Section Student Paper Competition
   - Winner of 2020 Michael and Penina Haber Award

6. Joshua Lukemire, Dept. of Biostatistics and Bioinformatics, Emory University, 2018-pres. (Joint with S. Kundu)
   - First place winner of 2019 Kutner Award for the Best Senior PhD Student Research presentation.
   - Recipient of RSPH Livingston Fellow, 2020
   - Member of the winning team of the BrainHack Atl (2019) Hackathon

- **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". Placement: Northwestern University.

  2. Tianchi Zhang, Dept. of Biostatistics and Bioinformatics, Emory University, 2013-2014.(graduated) "Appling group ICA to fMRI analysis". Admitted to the PhD program of Department of Statistics, University of Georgia

3. Yikai Wang, Dept. of Biostatistics and Bioinformatics, Emory University, 2014-2015. Admitted to the PhD program of Department of Biostatistics and Bioinformatics, Emory University.

4. Junhan Fan, Dept. of Biostatistics and Bioinformatics, Emory University, 2015-2016 (joint with Dr. Suprateek Kundu). Admitted to the PhD program in Biostatistics, Waterloo University, Canada.

5. Mendi Wu, Dept. of Biostatistics and Bioinformatics, Emory University, 2015-2016 (graduated)

6. Yujie Zhao, Dept. of Biostatistics and Bioinformatics, Emory University, 2016-2017 (graduated). Admitted to the PhD program in Biostatistics, MD Anderson.

7. Xinyi Yang, Dept. of Biostatistics and Bioinformatics, Emory University, 2018-2019 (graduated). Admitted to the PhD program in Biostatistics, University of Colorado.

7. MPH Student Thesis Committee
1. Binwei Song, MS, Department of Biostatistics, Emory University, 2004-2005 (graduated)
2. Svetlana Masalovich, MS, Dept. of Biostatistics and Bioinformatics, Emory University, 2009-2010 (graduated).
3. Jin Ming, Dept. of Biostatistics and Bioinformatics, Emory University,2015-2016, Admitted to the PhD program of Department of Biostatistics and Bioinformatics, Emory University.
6. Megan Warnock, Dept. of Biostatistics and Bioinformatics, Emory University, 2016-2017.
7. Scott Liang, Dept. of Biostatistics and Bioinformatics, Emory University, 2017-2018.
8. Zixi Yang, Dept. of Biostatistics and Bioinformatics, Emory University, 2018-2019

8. Doctoral Student Dissertation Committee
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. Lijia Wang, PhD candidate, gradulated, 2015-2016, "Composite Conditional Likelihood".
7. Jang, Jeong Hoon, PhD candidate, graduated, "Statistical methods for evaluating continuous and functional diagnostic markers"
8. Raphiel Murden, graduated , 2018-2021.
9. Xin Ma, PhD candidate, 2020-pres.

<u>Neuroscience Graduate Program, Graduate Division of Biological and Biomedical Sciences</u>:
1. Amy Anderson   PhD candidate, 2008-2013 (graduation in April, 2013), "The effects of prenatal exposure to depression, stress, and antidepressants on brain development."
2. Jacob Billings   PhD candidate, 2014-2017 (graduation in 2017), "Multiscale Statics and Dynamics of Cerebral Functional Connectivity".
3. James Scott Cordova PhD candidate, 2014-2018. (Serving as the statistical mentor)
4. Alyssa Roeckner, PhD candidate, 2020-

9.   **Academic Advisor**:
<u>Doctoral Students</u>:
  Emily Mitchell,   2009-2011
  Shulin Liu,   2009-2010
  Qing He,   2010-2011

<u>Master Students</u>:
Katie Catevenis, 2010-2011, Sara Seeman, Xin Sun, Yujie Liu

10.   Other Mentoring
1. Training Faculty, 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. Training Faculty, Atlanta Summer Institute for Training in Biostatistics (SIBS), 2017, 2018
3. Training Faculty, ASA Research Experience for Undergraduates Training (REU) Program, 2017
4. Visiting doctoral students:
   Shanshan Li, Department of Biostatistics, Johns Hopkins University, Oct. –Nov 2011
   Amanda Mejia, Department of Biostatistics, Johns Hopkins University, Oct, 2016
5. Undergraduate students:
   David Mou, Department of Mathematics and Computer Science, Emory University

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. "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.

30. "Exploring the brain connectivity: questions, challenges and recent findings " . Banff International Research Station (BIRS) workshop "Mathematical and Statistical Challenges in Neuroimaging Data Analysis", January, 2016, Banff, Alberta, Cananda. Video (http://www.birs.ca/events/2016/5-day-workshops/16w5036/videos/watch/201602010904-Guo.html)

31. "A novel distributional ICA model for multimodal neuroimaging data". In invited session "Computational-Intensive Bayesian Techniques and Neurostatistics", International Biometrics Society (ENAR) Meeting, Austin, TX, March, 2016.

32. "Investigating differences in brain functional networks using a hierarchical covariate-adjusted ICA model". Department of Mathematics and Statistics, University of Alberta, Canada, March, 2016.

33. "New ICA methods for exploring brain connectivity using neuroimaging data". Department of Biostatistics, Brown University, April, 2016.

34. "Statistical Methods for Assessing Reproducibility in Multicenter Neuroimaging Studies", Joint Statistical Meeting (JSM), Chicago, August, 2016.

35. "New ICA methods for more effective decomposition of neuroimaging data", Challenges and Advances on Big Data in Neuroimaging Conference, jointly sponsored by Cleveland Clinic and American Statistical Association, Cleveland Clinic, August, 2016.

36. "Statistical ICA methods for brain network analysis using neuroimaging data", Department of Statistics, Florida State University, March, 2017.

37. "Statistical methods for improving reliability in investigation of brain networks ", Institue of Bioinformatics, University Georgia, April, 2017.

38. "New ICA methods for brain network analysis using neuroimaging data", 5th Workshop on Biostatistics and Bioinformatics, Atlanta, GA, May, 2017

39. "A New Unified ICA Framework for Decomposing Multimodal Neuroimaging Data" In Invited Session "New Innovations and Challenges in Computational Neuroscience", Joint Statistical Meetings (JSM), Baltimore, Maryland, USA, Aug., 2017.

40. "New ICA methods for brain network analysis using neuroimaging data", Department of Biostatistics, Columbia University, Nov, 2017

41. "New ICA methods for brain network analysis using neuroimaging data", Department of Population Health Sciences, Medical College of Georgia, Nov, 2017.

42. "Imaging analytics for investigating brain functional and structural connections", International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

43. "New ICA methods for brain network analysis using neuroimaging data", Department of Statistics, University of Virginia, April, 2018.

44. "Distributional Independent Component Analysis for Diverse Neuroimaging Modalities", International Indian Statistical Association Conference (IISA), Gainseville, FL, May, 2018.

45. "A hierarchical independent component analysis framework for longitudinal fMRI analysis", Annual Statistical Methods in Imaging (SMI) conference, University of Pennsylvania, June, 2018.

46. "Brain network analysis using multimodal neuroimaging data", Department of Psychiatry, Drexel University, Philadelphia, June, 2018.

47. "Brain network analysis using multimodal neuroimaging data", The 8th International Forum on Statistics, Renmin University, China, June, 2018.

48. "New ICA methods for brain network analysis using neuroimaging data", Statistical Methods in Real-World Research Conference, Healthcare Big Data Institute, Capital Medical University, Beijing, June, 2018.

49. "Statistical modeling of brain connectivity using multimodal neuroimaging", International Chinese Statistical Association (ICSA) China Conference with the Focus on Data Science, Qingdao, China, July, 2018.

50. "New ICA methods for brain network analysis using neuroimaging data", Institute of Science and Technology for Brain-inspired Intelligence, School of Mathematical Sciences, Fudan University, China, July, 2018.

51. "Statistical methods for exploring brain networks using multimodality neuroimaging", Joint Statistical Meetings (JSM), Vancouver, CA, Aug., 2018.

52. "New ICA methods for brain network analysis using neuroimaging data", Department of Biostatistics, University of Minnesota, Oct, 2018.

53. "Statistical methods for exploring brain networks using multimodality neuroimaging", Department of Biostatistics, Vanderbilt University, April, 2019.

54. "A longitudinal independent component analysis framework", Statistical Methods in Imaging Annual Meeting, June 2019, University of California at Irvine.

55. "Statistical methods for reliable and reproducible brain network analysis", In Invited Session "Advancing the statistical analysis of neuroimaging data", Joint Statistical Meetings (JSM), Denver, CO, Aug., 2019.

56. "LOCUS: a novel method for investigating brain connectivity". Workshop on New Methods in Neuroimaging Data Analysis, Nashville, March, 2020 (cancelled due to Covid-19).

57. "A regularized blind source separation method for decomposing brain connectivity matrices". Western North American Region (WNAR) of The International Biometric Society conference, June, 2020. (cancelled due to Covid-19).

58. "A regularized blind source separation with low-rank structure for investigating brain connectivity traits". In Invited Session "Statistical methods for complex imaging data", Joint Statistical Meetings (JSM), Aug., 2020.

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.

15. " An efficient and reliable statistical methods for investigating large-scale brain connectivity using partial correlations", Poster presentation at Organization for Human Brain Mapping (OHBM) 2016 Annual Meeting, Geneva, Switzerland, 2016.

16. " Predicting individual brain connectivity in longitudinal imaging studies using a Bayesian hierarchical model", Poster presentation at Organization for Human Brain Mapping (OHBM) 2016 Annual Meeting, Vancouver, Canada, 2017.

17. Modeling and Predicting Individual Functional Connectivity in Longitudinal fMRI Studies. Organization of Human Brain Mapping (OHBM) Conference, Vancouver, CA, June 2017

SELECTED OTHER PRESENTATIONS AS NON-PRESENTING CO-AUTHOR

†: denote students/postdocs advised/co-advised/supervised

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). ," 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 Yand 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 Yand 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.

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 PB[†], 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**.

27. Kemmer, P.B.[†], Guo, Y., and Bowman, F. D. "Statistical Approaches for Exploring Brain Connectivity with Multi-Modal Neuroimaging Data." Joint Statistical Meetings (JSM), Seattle, WA, Aug 2015.

28. Kemmer, P.B[†]. and Guo, Y. "A joint model for assessing the link between functional and structural brain connectivity" ENAR, Austin, TX, March 2016.

29. Pal, S[†], Guo, Y and Kang, J. (2016), a novel distributional ICA framework for multimodality imaging data, ICSA Applied Statistics Symposium, June, 2016.

30. Kang, J and Guo, Y. A Bayesian Approach for Large Scale Discrete Latent Source Separation. In an invited session "Recent advances in in Independent Component Analysis with Applications to Imaging Studies", Annual Conference of Statistical Methods in Imaging, Denver, CO, June, 2016.

31. Kundu, S, Lukemier, J and Guo, Y, An Integrative Approach for Estimating Multiple Brain Networks, In an invited session "Recent advances in in Independent Component Analysis with Applications to Imaging Studies", Annual Conference of Statistical Methods in Imaging, Denver, CO, June, 2016.

32. Pal, S[†], Guo, Y and Kang, J., A novel distributional ICA framework for multimodality imaging data, Challenges and Advances on Big Data in Neuroimaging Conference, jointly sponsored by Cleveland Clinic and American Statistical Association, Cleveland Clinic, August, 2016.

33. Wang, Y[†], Kemmer, PB, Kang, J. and Guo, Y. An efficient and reliable statistical method for estimating large-scale brain connectivity. Challenges and Advances on Big Data in Neuroimaging Conference, jointly sponsored by Cleveland Clinic and American Statistical Association, Cleveland Clinic, August, 2016

34. Dai, T[†] and Guo, Y. Prediction of Brain Functional Connectivity in Resting-State fMRI Data Using a Bayesian Hierarchical Model, in "Statistics in Imaging Section Student Paper Awards" session, Joint Statistical Meeting (JSM), Chicago, 2016.

35. Kemmer, P.B. [†],and Guo, Y. A Joint Model for Assessing the Link Between Functional and Structural Brain Connectivity, Joint Statistical Meeting (JSM), Chicago, 2016.

36. Rahman AF[†], Peng, L, Manatunga, AK, Guo, Y. Nonparametric Regression Method for Broad Sense Agreement, Joint Statistical Meeting (JSM), Chicago, 2016.

37. Mejia, A. and Guo, Y. Template independent component analysis: robust estimation of subject- and group-level resting-state fMRI networks. Joint Statistical Meeting (JSM), Baltimore, Maryland, 2017.

38. Kundu, S. Ming, J and Guo, Y. A changepoint detection approach for dynamic brain networks, Joint Statistical Meeting (JSM), Baltimore, Maryland, 2017.

39. Pal, S[†] and Guo, Y. Clustering DTI data to identify white matter fiber bundle using a mixture of Langevin distribution. Joint Statistical Meeting (JSM), Baltimore, Maryland, 2017.

40. Higgins, I[†]., Kundu, S., Pal, S., Guo, Y. (2017) Anatomically Informed Estimation of Functional Brain Networks. Joint Statistical Meetings, Baltimore, MD, July, 2017.

41. Higgins, I. [†], and Guo, Y. (2016) Evaluating Nodal Differential Degree Centrality via Statistically Motivated Random Networks. Organization for Human Brain Mapping, Vancouver, Canada, June 2017.

42. Lukemire, J. [†], Verma, A., Shi, R., and Guo, Y. (2017) A Hierarchical Covariate-Adjusted ICA Matlab Toolbox for Investigating Differences in Brain Networks. Organization for Human Brain Mapping, Vancouver, Canada, June 2017.

43. Higgins, I. [†], Kundu, S., Pal, S., Guo, Y. (2017) Penalized Estimation of Functional Brain Networks in the Presence of Anatomical Information. Statistical Methods in Imaging, Pittsburgh, PA, May, 2017. **Student Paper Award Winner**.

44. Lukemire, J[†], Verma, A, Shi, R. and Guo, Y. A Hierarchical Covariate-Adjusted ICA Matlab Toolbox for Investigating Differences in Brain Networks. Organization of Human Brain Mapping (OHBM) Conference, Vancouver, CA, June 2017**.**

45. Wang, Y. [†] and Guo, Y. Longitudinal Independent Component Analysis with Application to fMRI data. Organization of Human Brain Mapping (OHBM) Conference, Vancouver, CA, June 2017**.**

46. Higgins, I. [†] and Guo, Y. Evaluating Nodal Differential Degree Centrality via Statistically Motivated Random Networks. Organization of Human Brain Mapping (OHBM) Conference, Vancouver, CA, June 2017**.**

47. Wang, Y. [†] and Guo, Y. (2018) Novel Unsupervised Signal Decomposing Methods for Longitudinal fMRI Data Analysis. Southern Data Science Conference, Apr 2018, Atlanta, GA.

48. Joshua Lukemire[†], Suprateek Kundu, Giuseppe Pagnoni, and Ying Guo, Bayesian Joint Modeling of Multiple Brain Functional Networks, International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

49. Qiu, Z[†], Peng, L, Manatunga, AK, Guo, Y. A Smooth Nonparametric Approach to Determining Cut-Points of a Continuous Scale. , International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

50. Meija, A., Wang, Y., Caffo, B and Guo, Y. Template ICA: Estimating Resting-State Networks from fMRI in Individual Subjects using Empirical Population Priors. International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

51. Wu, B[†]., Kang, J. and Guo, Y. Latent Source Separation for Multi-Subject Brain Networks. , International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

52. Xin, M [†], Guo, Y., Peng, L and Manatunga, AK. Latent Classes of Resting-State Functional Connectivity and Their Association with Clinical Features. , International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

53. Wang, Y. [†] and Guo, Y. A Hierarchical independent component modeling framework with application to longitudinal fMRI study. International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2018.

54. Meija, A., Wang, Y., Caffo, B and Guo, Y. Template ICA: Estimating Resting-State Networks from fMRI in Individual Subjects using Empirical Population Priors. Joint Statistical Meeting (JSM), Vancouver, Canada, 2018.

55. Higgins, I.[†], Kundu, S., Guo, Y. Comparison of Functional Brain Networks via Correlation Preserving Random Networks. Joint Statistical Meeting (JSM), Vancouver, Canada, 2018.

56. Wang, Y.[†] and Guo, Y. Longitudinal Independent Component Modeling Framework for fMRI Decomposition. Joint Statistical Meeting (JSM), Vancouver, Canada, 2018.

57. Kundu, S., Higgins, I., Guo, Y. Bayesian Integrative Analysis of Brain Functional Networks Incorporating Anatomical Knowledge. Joint Statistical Meeting (JSM), Vancouver, Canada, 2018.

58. Wang, Y.[†] and Guo, Y. , Longitudinal Independent Component Modeling Framework for fMRI Decomposition, Statistical Methods in Imaging Annual Meeting, CA, USA, 2019.

59. *Wu, B[†], Kang, J. ,and Guo, Y., A Thresholded Gaussian Process Independent Component Analysis for Spatially Correlated Sources, Statistical Methods in Imaging Annual Meeting, CA, USA, 2019.*

60. Murden, R., Risk, B. and Guo, Y. Joint Analysis of Neuroimaging and Psychosocial Factors. Joint Statistical Meeting(JSM), Denver, CO, July, 2019.

61. Lukemire, J.[†], Kundu, S., Pagnoni, G. and Guo, Y..Bayesian Joint Modeling of Multiple Brain Functional Networks. Joint Statistical Meeting(JSM), Denver, CO, July, 2019.

62. Kan, X.[†], Guo, Y., Manatunga, AK, Stevens, J. and Peng, L. Investigating linked latent constructs in brain connectivity and PTSD symptoms using PLS. International Biometrics Society (ENAR) Meeting, March, 2021.

63. Wei, B., Peng, L., Guo, Y. and Manatunga, AK, Tensor response quantile regression with neuroimaging data. International Biometrics Society (ENAR) Meeting, March, 2021.

64. Ran, J., Wang, Y. and Guo, Y. Investigating Latent Neurocircuitry Traits Underlying Brain Dynamic Functional Connectome. International Biometrics Society (ENAR) Meeting, Atlanta, GA, March, 2021.

65. Ran, J., Wang, Y. and Guo, Y. Investigating Latent Neurocircuitry Traits Underlying Brain Dynamic Functional Connectome. Statistical Methods in Imaging (SMI) Conference, Atlanta, GA, May, 2021.

66. Wei, B., Peng, L., Guo, Y. and Manatunga, AK, Tensor response quantile regression with neuroimaging data. Statistical Methods in Imaging (SMI) Conference, Atlanta, GA, May, 2021.