CURRICULUM VITAE

Tingting Zhang

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EDUCATION

2008	**Ph.D.**, Statistics, Harvard University Advisers: Samuel Kou and Jun S. Liu
2003	**B.Sc.**, Mathematics, Beijing University, China

POSTDOCTORAL RESEARCH

2008-2009	Postdoctoral Fellow in Statistics Department of Statistics, Harvard University Mentors: Samuel Kou and Jun S. Liu

PROFESSIONAL EXPERIENCE

2015-present	Associate Professor Department of Statistics, University of Virginia
2013 Spring	Visiting Faculty Department of Biostatistics, Johns Hopkins University
2010-2011	Senior Fellow, Analysis of Object Data Program Statistical & Applied Mathematical Sciences Institute
2009-2015	Assistant Professor Department of Statistics, University of Virginia
2007-2008	Resident Advisor GSAS Residence Halls, Harvard University
2006-2009	Non-Resident Tutor in Statistics Mather House, Harvard University

EDITORIAL ACTIVITIES

Peer Review Activities
Annals of Applied Statistics, Bayesian Analysis, Biometrics, Canadian Journal of Statistics, Computational Statistics and Data Analysis, Frontiers in Neuroscience, Human Brain Mapping, IEEE

Transactions on Medical Imaging, Journal of American Statistical Association, Journal of Computational and Graphical Statistics, Journal of Multivariate Analysis, Mathematical Reviews, NeuroImage, Proceedings of the National Academy of Sciences, The Plant Cell, Statistica Sinica, Statistical Applications in Genetics and Molecular Biology, Statistics and Its Interface, Statistics in Medicine, *PLoS* Computational Biology.

Review of grant proposals

2016	National Science Foundation	Electronic Proposal Review
2015	National Science Foundation	Virtual Panel Review
2014	National Science Foundation	Electronic Proposal Review
2014 & 2012	National Science Foundation	Panel Review

Editorial Position

2016-present	*The Annals of Applied Statistics*	Associate Editor
2015-2018	*Stat*	Associate Editor

PUBLICATIONS

1. **Zhang, T**, Pham, M, Sun, J, Yan, G, Medina-Devilliers, S, and Coan, JA (2018). Spatial Temporal Analysis of Multi-Subject, Stimulus-evoked fMRI Data. In preparation.

2. Bauer, D, Kanth, K, Quigg, M, **Zhang, T**, and Foutain, NB (2018). Seizure Frequency and SUDEP: a Case-Control Study. In preparation.

3. **Zhang, T**, Sun, Y, Yan, G, Yin, Q, Li, H, Tanabe, S, Caffo, B, and Quigg, M (2018). Bayesian Inference of a Directional Brain Network for Intracranial EEG Data. *Journal of Computational and Graphical Statistics*, under review.

4. **Zhang, T**, Pham, M, Sun, J, Yan, G, Gonzalez, MZ, and Coan, JA (2017). A Low-Rank Multivariate General Linear Model for Multi-Subject fMRI Data and a Non-Convex Optimization Algorithm for Brain Response Comparison. *NeuroImage*, accepted.

5. Xu, P, **Zhang, T**, and Gu, Q (2017). Efficient Algorithm for Sparse Tensor-variate Gaussian Graphical Models via Gradient Descent. In *Proceedings of the 20th International Conference on Artificial Intelligence and Statistics (AISTATS)*, Fort Lauderdale, Florida, USA.

6. **Zhang, T**, Yin, Q, Caffo, B, Sun, Y, and Boatman-Reich, D (2017). Bayesian Inference of High-Dimensional, Cluster-Structured Ordinary Differential Equation Models with Applications to Brain Connectivity Studies. *Annals of Applied Statistics*, 11(2): 868-897.

7. **Zhang, T***, Shen, H, and Fan, L (2016). Linear and non-linear models for fMRI time series analysis. In Ombao, H, Lindquist, M, Thompson, W, and Aston, J ed. *Handbook of Modern Statistical Methods: Neuroimaging Data Analysis*. Chapman and Hall/CRC.
   * Contact Author.

8. Li, F*, and **Zhang, T***, Wang, Q, Gonzalez, MZ, Maresh, EL, and Coan, JA. (2015). Spatial Bayesian variable selection and grouping in high-dimensional scalar-on-image regressions. *Annals of Applied Statistics*, 9: 687-713.
* Equally contributing authors.

9. **Zhang, T**, Wu, J, Li, F, Caffo, B, and Boatman-Reich, D. (2015). Dynamic directional model for effective brain connectivity using Electrocorticographic (ECoG) time series. *Journal of the American Statistical Association*, 110: 93-106.

10. **Zhang, T** and Li, F, Gonzalez, MZ, Maresh, EL, and Coan, JA. (2014). A semi-parametric nonlinear model for event-related fMRI. *NeuroImage*, 97: 178-187.

11. **Zhang, T**, Li, F, Beckes, L, and Coan, JA. (2013). A semi-parametric model of the hemodynamic response for multi-subject fMRI data. *NeuroImage*, 75: 136-145.*
* NSF highlight 24408 "Reach out and touch someone".

12. **Zhang, T**, Li, F, Beckes, L, Brown, C, and Coan, JA. (2012). Nonparametric inference of hemodynamic response for multi-subject fMRI data. *NeuroImage*, 63: 1754-1765.

13. Zhong, W, **Zhang, T**, Zhu, Y, and Liu, JS. (2012). Correlation pursuit: variable selection beyond linear regression. *Journal of Royal Statistical Society Series B*, 74: 849-870.

14. **Zhang, T** and Liu, JS. (2012). Nonparametric hierarchical Bayes analysis of binomial data via Bernstein polynomial priors. *The Canadian Journal of Statistics*, 40: 328-344.

15. **Zhang, T** and Kou, S. (2010). Nonparametric inference of doubly stochastic Poisson process via kernel method. *Annals of Applied Statistics*. 4: 1913-1941.

16. Shedlock, AM, Botka, CW, Zhao, S, Shetty, J, **Zhang, T**, Liu, JS , Deschavanne, PJ, and Edwards, SV. (2007). Phylogenomics of nonavian reptiles and the structure of the ancestral amniote genome. *Proceedings of National Academy of Science (USA)*, 104: 2767-2772.

GRANTS

1. Spatial Temporal Analysis of Multi-Subject Neuroimaging Data for Human Emotion Studies. $247,955.00. NSF-SES. PI. 04/01/2018-03/31/2021.

2. CBMS Conference: Elastic Functional and Shape Data Analysis (EFSDA). $35,748.00. NSF-DMS. Co-Principal Investigator. (PI: Sebastian Kurtek; Other Co-Principal Investigators: Yusu Wang, Facundo Memoli, and Hongtu Zhu). 11/15/2017-10/31/2018.

3. University of Virginia Quantitative Collaborative Seed Grant. $12,000.00. PI. 2017-2018.

4. University of Virginia CHARGE Enhancement Grant. $5,000.00. PI. 2016-2017.

5. Collaborative Research: Statistical Modeling and Inference for High-dimensional Multi-subject Neuroimaging Data. $101,600.00. NSF-DMS. PI. 2012-2015.

6. ATD Collaborative Research: Statistical Modeling of Short-Read Counts in RNA-Seq. $53,039.00. NSF-DMS. PI. 2011-2014.

SERVICES and ACTIVITIES

2018	ASA Statistics in Imaging Section	Program Chair-Elect
2017-18	University of Virginia Department of Statistics	The Director of Graduate Studies
2017	ENAR Spring Meetings Committee ASA Statistics in Imaging	Committee Representative
2016-17	University of Virginia Vice President for Research	Internal Review Committee Member
2016-17	University of Virginia Next Third Century Campaign	Review Committee Member
2016	Tsinghua Sanya International Mathematics Forum Mathematics and Statistics in Big Data Integration Workshop	Organizer
2016	SAMSI Workshop on Challenges in Functional Connectivity	Organizer
2016, 2017	JSM Statistical Learning and Data Mining (SLDM) Student Paper Competition	Committee Member
2015, 2016	ENAR Spring Meetings Committee ASA SLDM Section	Committee Representative

MENTORING

Former Ph.D. Students

Name	Department (Year)
Qiannan Yin	Statistics (2017)
Dissertation:	Bayesian Inference of High-Dimensional Ordinary Differential Equation Models for Brain Networks
First Placement:	LinkedIn
Jingwei Wu	Statistics (2015)
Dissertation:	High-Dimensional Ordinary Differential Equation Models for Connectivity Studies
First Placement:	Barclays Investment Bank

Doctoral advisees

Name	Department	Year
Jianhui Sun	Statistics	2021(expected)
Huazhang Li	Statistics	2021(expected)
Yinge Sun	Statistics	2020 (expected)

Master advisees

Name	Department	Year
Pitchaya Wiratchotisatian	Statistics	2017

Doctoral thesis committee

Name	Department	Year
Yang Yu	Biology	2021
Jie Liu	Systems Engineering	2018
Yin Zhang	Statistics	2018
Haiyun Hu	Electrical & Computer Engineering	2016
Chun-Ju Lai	Mathematics	2016
Huichen Bao	Mathematics	2015
Feiyang Niu	Statistics	2015
Hao Liu	Physics	2014
Sean Clark	Mathematics	2014
Wei Ma	Statistics	2013
Yanqing Hu	Statistics	2011
Jiakang Lu	Computer Science	2011

Master thesis committee

Name	Department	Year
Yiwei Zhang	Systems Engineering	2012

INVITED TALKS

1. (2018) Department of Biostatistics, Brown University.
2. (2018) ENAR Spring Meeting, Atlanta, GA.
3. (2017) The 10th International Conference on Computational and Methodological Statistics, London, UK.
4. (2017) Workshop on Applications-Driven Geometric Functional Data Analysis, Tallahassee, FL.
5. (2017) Department of Biostatistics, Virginia Commonwealth University, Richmond, VA.
6. (2017) Joint Statistical Meetings, Baltimore, MD.
7. (2017) Department of Statistics, North Carolina State University.
8. (2016) The 10th ICSA International Conference, Shanghai, China.
9. (2016) The 9th International Conference on Computational and Methodological Statistics, Seville, Spain.
10. (2016) Department of Statistics, University of Delaware.
11. (2016) Department of Biostatistics, University of Michigan.
12. (2016) Workshop on Challenges & Advances on Big Data in Neuroimaging, Cleveland Clinic, OH.
13. (2016) Workshop on Novel Statistical Methods in Neuroscience, Magdeburg, Germany.
14. (2016) Department of Statistics, University of California, Davis.
15. (2016) Department of Statistics, Virginia Tech.
16. (2016) ENAR Spring Meeting, Austin, TX.
17. (2016) Banff Workshop on Mathematical and Statistical Challenges in Neuroimaging Data Analysis, Banff, Canada.
18. (2015) Joint Statistical Meetings, Seattle, WA.
19. (2015) Tsinghua Summer Workshop on Modern Statistics, Beijing, China.
20. (2015) Department of Statistics, University of Pittsburgh.
21. (2015) Department of Biostatistics, Johns Hopkins University.
22. (2014) Tsinghua-Sanya Workshop on Big Data, Tsinghua Sanya International Mathematics Forum, China.
23. (2014) Department of Statistics, Columbia University, New York, NY.

24. (2014) Joint Statistical Meetings, Boston, MA.

25. (2014) ICSA and KISS Joint Applied Statistics Symposium in Portland, OR.

26. (2014) International Symposium on Business and Industrial Statistics (ISBIS) and ASA Section on Statistical Learning and Data Mining (SLDM) Joint Meeting, Durham, NC.

27. (2014) Department of Statistics, Chinese University of Hong Kong.

28. (2014) SIAM Conference on Imaging Science, Hong Kong.

29. (2014) Department of Statistics, University of Pennsylvania.

30. (2014) Department of Statistical Sciences and Operations Research, Virginia Commonwealth University, Richmond, VA.

31. (2014) ENAR Spring Meeting, Baltimore, MD.

32. (2014) Department of Child and Adolescent Psychiatry, The Biostatistics Division, New York University.

33. (2014) Department of Statistics and Operations Research, The University of North Carolina at Chapel Hill.

34. (2013) Joint Statistical Meetings, Montreal, Canada.

35. (2013) IMS New Researchers Conference, Montreal, Canada.

36. (2013) SAMSI Neuroimaging Data Analysis Workshop, Durham, NC.

37. (2013) International Perspectives on High Dimensional Data Analysis III, UBC campus, Canada.

38. (2013) Department of Statistics, Columbia University.

39. (2013) Department of Biostatistics, Johns Hopkins University.

40. (2013) ENAR spring meeting, Orlando, FL.

41. (2012) Department of Psychology, University of Virginia.

42. (2012) The 2nd IMS Asia Pacific Rim Meeting, Tsukuba, Japan.

43. (2012) ICSA Applied Statistics Symposium, Boston, MA.

44. (2012) Conference on Statistical Learning and Data Mining, Ann Arbor, Michigan.

45. (2011) The First Wuxi International Statistics Forum, Wuxi, China.

46. (2011) The Research Symposium on Frontiers of Statistics, Hefei, China.

47. (2011) SAMSI Transition Workshop, Durham, NC.

48. (2010) International Chinese Statistical Association (International) Conference, Guangzhou, China.

49. (2010) Department of Statistics, Chinese University of Hong Kong.

50. (2010) Division of Biostatistics, University of Virginia.