Full Curriculum Vitae
Date: January 3, 2024

Personal

Name: Hongtu Zhu
Lab name: Bio*S*tatistics and *I*maging *G*enomics *A*nalysi*S* *L*ab
(BIG-S2=Statistics and Signal)
Lab Website: https://www.med.unc.edu/bigs2/
Our Lab Knowledge Portal Website: https://bigkp.org/

Education

Postdoctoral training	2003	Yale University, USA
Postdoctoral training	2001	Pacific Institute for Mathematical Science, Canada
Ph.D in Statistics	2000	The Chinese University of Hong Kong.
M.Sc in Statistics	1996	Southeast University, P.R. China.

Professional Experience

DiDi Chuxing	May 2018-March 2021 DiDi Fellow, Chief Scientist of Statistics, Director of Department of Statistical and Decision Sciences consisting of four research teams with 30+ members and Director of Department of Feature Engineering consisting of five research teams with 85+ members
The Chinese University of Hong Kong,	Oct 2019- Adjunct Professor
MD Anderson Cancer Center	May 2017- April 2018 Endowed Bao-Shan Jing Professorship in Diagnostic Imaging
MD Anderson Cancer Center	May 2016- April 2018 Professor
Rice University	May 2016 Adjunct Professor
Texas A&M University	May 2016 Adjunct Professor
University of North Carolina at Chapel Hill	August 2011- Professor of Biostatistics
University of North Carolina at Chapel Hill	July 2021- Professor of Computer Science
University of North Carolina at Chapel Hill	December 2021- Professor of Statistics

University of North Carolina at Chapel Hill	January 2022-	Professor of Genetics
University of North Carolina at Chapel Hill	September 2023-	Professor of Radiology
University of North Carolina at Chapel Hill	August 2006-July 2011	Associate Professor
New York State Psychiatric Institute	April 2004-July 2006	Research Scientist IV
Columbia University	July 2003-July 2006	Assistant Professor

Honors

Daniel Wagner Prize for Excellence in Operations Research Practice, Informs 2019
Senior Member IEEE 2020
MICCAI Oropharynx Cancer (OPC) Radiomics Challenge :: Human Papilloma Virus (HPV) winner team leader 2017
A Grand Challenge for Tissue Microarray Analysis in Thyroid Cancer Diagnosis: ISBI 2017 winner team leader 2017
CPRIT senior Investigator of Texas State with 4M for research 2015
Arthur H. Wuehmann Prize, American Academy of Oral and Maxillofacial Radiology 2011
Fellow, American Statistical Association, 2011
Fellow, Institute of Mathematical Statistics, 2011

Memberships

American Statistical Association
International Biometric Society
Human Brain Mapping
Institute of Mathematical Statistics
International Society for Bayesian Analysis
International Chinese Statistical Association
IEEE
Society of Medical Imaging Computing and Computer Assisted Intervention

Department/University Service

Columbia University

2004-2006 Research/Postdoctoral Fellow Training Committee at Columbia University

University of North Carolina at Chapel Hill

2006-2007	Doctor Examination Committees I and II, Graduate Studies Committee
2007-2008	Doctor Examination Committees I and II, Seminar Committee
2008-2009	Doctor Examination Committees I and II, Seminar Committee
2009-2015	Doctor Examination Committees I and II, Graduate Studies Committee
2011-2015	Research Council/Conflict of Interest Committee for School of Public Health
2022-now	Nomination Committee
2023-now	The Faculty Assembly Delegation， ex officio Faculty Counsel.

Professional Service

Grants Review:

National Science Foundation, 2007, 2009, 2010, 2011, 2012, 2013, 2014
NIH Challenge grants, 2009.
NIH Neurological, Aging and Musculoskeletal Epidemiology Study Section, 2009, 2010.
NIH ZRG1 BST-N(90), 2011.
NIH NINDS NeuroNEXT program, 2012, 2013
NIH ZRG1 BDCN-L(60)R, 2013
NIH ZRG1 AARR-F (52) (53) R 2014/01
NIH ZNS1 SRB-B (39) 2014-01
National Sciences and Engineering Research Council of Canada, 2010, 2011.
Chile Foudecyt National Research Funding Competition 2010, 2011
CIHR- Methodological Innovations for Neuroimaging Datasets, 2013
CIHR- Secondary Analysis of Neuroimaging Datasets, 2013
NIH Zrg1 BDCN-L(60)R, 2014.
NIH G79, 2014
NIH Clinical Neuroscience and Neurodegeneration (CNN) Study Section 2015-.
NSF Collaborative Research in Computational Neuroscience (CRCNS), 2015, 2016, 2017, 2018
NIH Big Data to Knowledge (BD2K) training grant panel, 2015, 2016
NIMH T32 training grant panel, 2015, 2017
NIH ZRG1 HDM-W 03 2016
NIH ZRG1 RPHB-W (53) R 2016
NIH ZRG1 BDCN-N (55) R 2016
NIH BCHI Study Section 2017
NIH ZRG1-IMST-U-50 2017
NIH ZMH1-ERB-M-01 2017
NIH ZMH1-ERB-X-04 2017
NIH ZRG1-IFCN-J (57) 2017
NIH BMRD 2018
NIH APDA 2018
NIH ZAT SM (63) P 2021.

NIH ZRG1 F13-Z (20) L, 2020.
NIH ZDC1 SRB-Z (42) 1 2021.
NSF SCALE MoDL Panel 2 2021.
NIH ZAT SM (63) P 2022.
NIH ZMH1 ERB-S (02) S 2022
NSF 21530 2023
NIMH Schizophrenia and Related Disorders During Mid- to Late-Life (R01 & R21) 2023
NIDCD Clinical Trial application 2023
NSF DMS 2023
NSF APTO 2023

Associate Editor:

2009-2011	Biometrics,
2007-2018	Statistics and its Interface,
2011-2017	Neurosurgery
2011-	Statistica Sinica
2012-2018	Journal of American Statistical Association, A&CS
2013-2018	Annals of Statistics
2014-2018	Journal of American Statistical Association, T&M
2015-2020	Statistics in Biosciences
2015-2021	Computational Statistics and Data Analysis.
2019-2023	Journal of Royal Statistical Society, Series B

Guest Editor for a special issue on NeuoroImaging analysis in *Statistics and its Interface*

Student Award Committee: ICSA 2006 Applied Statistics Symposium.

International Chinese Statistical Association Board of Directors 2012-2014

Regular member of *Promoting the Practice and Profession of Statistics* Committee American Statistical Association

Reviewer Committee:
International Conference on Medical Imaging Computing and Computer Assisted Intervention (MICCAI) 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016
IEEE International Symposium on Biomedical Imaging 2013, 2012, 2011, 2010
Neural Information Processing Systems (NIPS) Conference 2010, 2016, 2020, 2021, 2022.

Advisory Committee:
Society of Imaging Neuroscience Statisticians.
Section on Statistics in Imaging in ASA

Advisory Board:

EPSRC Centre for Clinical Imaging in Healthcare at Cambridge University. http://cmih.maths.cam.ac.uk

One of eight founding members of Section on Statistics in Imaging in ASA

Acting Chair 2012-2013 of Section on Statistics in Imaging in ASA

ENAR Education advisory committee: ENAR 2011.
ENAR Student Award Committee: 2010-2013.

SBSS Student Award Committee: 2012.

Conference Organizer:

Short Courses:

SAMSI NDA 2013 summer workshop
JSM 2013 on Statistical Methods for Neuroimaging Data Analysis.
Advanced Statistical Program 2014 in Northeast Normal University
SAMSI CCNS summer school organizer and instructor.
NESS 2022 Statistical Learning Methods for Neuroimaging Data Analysis

One of four Program Leaders (H. Zhu, Robert Kass, Haipeng Shen, and J. Wang) and Program Chair:

SAMSI summer workshop on Neuroimaging Data Analysis (NDA) 2013
Program Leader for SAMSI full-year program on Challenges in Computational Neuroscience (CCNS) with five workshops, one short course, and two regular courses 2015-2016
2022 International Symposium on Modern Data Science Application, Practice, and Theory, 2022.
2024 IMSI Workshop: Challenges in Neuroimaging Data Analysis
2024 First MBZUAI Workshop on Statistics for the Future of AI

Co-chair

Neuroimaging Data Analysis workshop at Banff,	2016
Tsinghua-Sanya Mathematics and Statistics Workshop	2016
Information Processing in Medical Imaging (IPMI) 2017	2017
Workshop on Applications-Driven Geometric Functional Data Analysis	2017
Recent Advances in Statistical Analysis of Imaging Data	2020
Statistical Learning Methods for Modern AI	2021

Reinforcement Learning for Intelligent Transportation Systems Workshop, IJCAI 2021.

KDD Workshop on Decision Intelligence and Analytics for Online Marketplaces, 2022, 2023

Reinforcement Learning Methods and Applications, 2022.
Foundation Models for Biomedical Science 2024

Bi-weekly Applied Reinforcement Learning Seminar Series
https://www.arlseminar.com/

Program Committee:

CFE-CMStatistics 2015
Eco-Statistics 2017
ICSA International Conference 2016
Bayesian Nonparametric Meeting 2015
JSM 2013
International Conference on Image and Signal Processing (ICSP) 2009, 2011, 2012.
The third IMS-China Conference 2011
Machine Learning in Medical Imaging (MLMI) 2011, 2012
Spatio-temporal image analysis workshop STIA'12, 2012
International Symposium on Advancements in Neuroimaging 2012. Co-Chair
AAAI 2019, 2022， 2023, 2024.
IJCAI 2019, 2020, 2021
KDD 2019, 2020, 2021, 2023

Planning Committee:
ENAR 2010

Invited Sections:
JSM 2024, Invited Section Organizer, August 2024.
JSM 2023, Invited Section Organizer, August 2023.
JSM 2022, Invited Section Organizer, August 2022.
JSM 2022, Roundtable, August 2022.
JSM 2021, Roundtable, August 2021.
JSM 2015, Introductory lecture organizer, August 2015.
JSM 2013, Invited Section Organizer, August 2013.
JSM 2012, Invited Section Organizer, August 2012.
JSM 2011, Roundtable, August 2011.
2rd IMS Pacific Rim, Invited Section Organizer, July 2012.
2rd IMS China, distinguished lecture session organizer, July 2011
ENAR 2011, Roundtable, March 2011.
ENAR 2021, Invited Section Organizer, March 2021

ENAR 2012, Invited Section Organizer, March 2012.
ENAR 2011, Invited Section Organizer, March 2011.
ENAR 2010, Invited Section Organizer, March 2010.
ENAR 2009, Invited Section Organizer, March 2009.
ICSA 2007, Raleigh, NC, Invited Section Organizer, July 2007.
ENAR 2005, Invited Section Organizer, March 2005.

Frequently review over 50 papers per year for the following journals:

Ecology, Science, Nature, Nature Genetics, Nature Aging, Nature Communication, Medical Physics, NeuroImage, Technometrics,
Computational Intelligence and Neuroscience, Psychological Methods,
Neuroinformatics, Psychometrika, Human Brain Mapping,
IEEE Transactions on Medical Imaging, Annals of Statistics,
American Statistician, Test, Journal of Applied Statistics,
Australian and New Zealand Journal of Statistics,
Biometrics, Biostatistics, Annals of Applied Statistics
British Journal of Mathematical Psychology and Statistics,
Canadian Journal of Statistics, Communication in Statistics,
Computational Statistics and Data Analysis,
International Journal of Biostatistics, Computational Statistics,
Journal of American Statistical Association,
Journal of Computational and Graphical Statistics,
Journal of Multivariate Analysis. Journal of Social and Clinical Psychology,
Journal of Statistical Computation and Simulation,
Journal of Statistical Planning and Inference,
Scandinavian Journal of Statistics, Statistical Papers,
Statistica Sinica, Statistics, Statistics and Its Interface,
Statistics in Medicine, Statistical Modeling: An International Journal,
Statistics and Probability Letters, Bayesian Analysis
Journal of Royal Statistical Society, Series B and C.
JAMA Internal Medicine

Panel of Review: Mathematical Reviews

Software development:

https://github.com/BIG-S2

FADTTS: A functional analysis of diffusion tensor tract statistics
available at http://www.nitrc.org/projects/fadtts/
FRATS available at http://www.nitrc.org/projects/frats/
FVGWAS: Fast Voxelwise Genome Wide Association Analysis
available at https://www.nitrc.org/projects/fvgwas/
All our tools are available at
https://github.com/BIG-S2

Citation:

Google Scholar:

Citation: 26010 since 2001; 15454+ since 2019.
h-index: 78 since 2001; 57 since 2019.
I10-index: 285 since 2001; 226 since 2019.

Presentations

1. ICSA Applied Statistical Symposium 2024, June 16-19, Keynote Speaker.
2. Statistics in the Age of AI 2024, May 9-11, GWU, Invited panel.
3. Department of Biostatistics, Columbia University, April 2024.
4. Statistical Aspects of Trustworthy Machine Learning, Banff, Feb, 2024
5. Statistics and AI workshop, MBZUAI, January 2024.
6. Poster Presentations at NeurIPS December 2023.
7. Department of Biostatistics and Bioinformatics, University of Wisconsin at Madison, September 2023.
8. Department of Statistics, Purdue University, October 2023.
9. JSM, August 2023.
10. MBZUAI, August 2023.
11. Summer School on Statistics and Finance, Shangdong University, July 2023.
12. STARF2023, Keynote Speaker, Nankai University, July 2023.
13. ST Jude Children's Research Hospital, May 2023.
14. UT Houston, School of Biomedical Informatics, March 2023.
15. CMSE, MSU, March 2023.
16. ENAR March 2023.
17. NICHD, Feb 2023.
18. Poly University of Hong Kong, Dec 2022.
19. University of Connecticut, Nov 2022.
20. University of Chicago, Oct 2022.
21. Renmin University, Oct/Nov 2022
22. East normal University, Oct 2022.
23. KDD DIA-OM, August 2022.
24. JSM 2022, August 2022.
25. East Normal University, Summer School on Statistics, July 2022.
26. ICSA Canada, July 2022.
27. East Normal University, June 2022.
28. IMS 2022, June 2022.
29. Department of Mathematics and Statistics, NYSU Binghamton, May 2022.
30. Department of Statistics, Oregon State University, May 2022.
31. Departments of Biostatistics and Statistics, UWashington, April 2022.

32. School of Data science, Fudan University, April 2022.
33. Keynote Speaker at Bernoulli Society, East Asia and Pacific Region Probability and Statistical meeting, March 2022.
34. NISS-Merck Meetup Webinar, March 2022.
35. Helen Barton Lecture, UNC at Greensboro, Feb 2022.
36. National Cancer Center, Feb 2022.
37. Keynote Speaker at PSC Workshop on Big Data and Algorithms for Imaging Genomics at Hawaii, January 2022.
38. Department of Statistics, Upenn, December 2021.
39. New England Statistical Society, Nov 2021.
40. Department of Statistics, NUS, Oct 2021.
41. Department of Biostatistics, UMich, October 2021.
42. School of Mathematics, Southeast University, October 2021.
43. Department of Biostatistics, Vanderbilt University, September 2021.
44. Department of Biostatistics, URMC CTSI Analytics Colloquium, Sep 2021.
45. ICSA Canada, August 2021.
46. KDD 2021, oral presentation, August 2021.
47. JSM 2021, August 2021.
48. Department of Epidemiology and Biostatistics, UCSF, August 2021.
49. Department of Statistics and Data Science, Southern China of Science and Technology, May 2021.
50. Department of Statistics and Data Science, Southern China of Science and Technology, Dec 2020.
51. Department of Statistics, Purdue University, Oct 2020.
52. JSM 2020
53. Summer course: Shanghai University of Finance and Technology, July 2020
54. Summer Course: East Normal University, July 2020
55. Reming University, April 2020
56. Stanford University, March 2020.
57. University of Hong Kong, Dec 2019.
58. The Chinese University of Hong Kong, Dec 2019.
59. NeurIPS 2019, Industrial Expo and Workshop on D2-City Challenge, Dec 2019.
60. University of Toronto, Toronto, Dec 2019.
61. Keynote Speaker for Big-data Analytics, Wuhan, Nov 2019.
62. Foundation for Data Science, Changchun, Oct 2019.
63. Nankai Special Lecture, September 2019.
64. AI Talk, DiDi, September 2019.
65. JSM 2019. Denver. July 2019.
66. Summer School on Imaging science, XiAn, June 2019.
67. Big-data and Modern Statistical Methods. Shanghai, June 2019.
68. CCFA 2019, Nanjing, May 2019.
69. Smart Mobility Workshop 2019. Hong Kong, May 2019.
70. Keynote Speaker. 2019 Conference on Survival Analysis and Applied Statistics, Lingyi, Shangxi, May 2019.

71. 2rd GIFT Long Triangle Capital Summit, YangZou, May 2019。
72. Academic Sinica, Taipei, April 2019。
73. 2019 AI Science Frontier Meeting, Beijing, 2019.
74. UNC Chapel Hill, Biostatistics, Feb 2019.
75. AAAI 2019, January 2019.
76. 2018 International Conference on Data Science, Shanghai, December 2018.
77. The Chinese University of Hong Kong, October 2018.
78. JSM 2018.
79. Hong Kong University, July 2018
80. Renming University, July 2018
81. Peking University, June 2018
82. UIUC, March 2018.
83. Michigan State University, Feb 2018.
84. Fudan Big-data Forum, Dec 2017.
85. Yale University, Nov 2017
86. University of Texas, MD Anderson Cancer Center, Nov 2017
87. University of Pittsburg, Oct 2017
88. University of Texas, MD Anderson Cancer Center, Oct 2107
89. DiDi Transportation, Sept 2017
90. ASA Houston Chapter, Sept 2017
91. CMO-Oaxaca, Sept 2017.
92. JSM 2017, July 2017.
93. IPMI 2017, June 2017.
94. Southern University of Science and Technology, June 2017.
95. ZhongShan University, June 2017.
96. Tsinghua University, June 2017.
97. The international workshop for mathematical imaging and digital,geometry, Beijing, China, June 2017.
98. UC Davis, May 2017.
99. Texas A&M, April 2017.
100. UNC-CH Statistics, April 2017.
101. UT Public Health, March 2017.
102. Rice University, February 2017.
103. National Cancer Institute, January 2017.
104. Tsinghua-Sanya Mathematics Institute, December 2016.
105. ICSA 2016, December 2016.
106. Fudan big-data conference. December 2016.
107. University of Pittsberg, Nov 2016.
108. North Carolina State University, Oct 2016.
109. Nonparametric Workshop, UMich, Oct 2016.
110. International Congress of Chinese Mathematicians, invited speaker for 45 minutes, August 2016.
111. JSM 2016, August 2016.
112. IMS neuroimaging workshop, invited speaker, Singapore, July 2016.
113. IMS Pacific Rim, invited speaker, June 2016.
114. SII imaging workshop, invited speaker, June 2016.

115. SAMSI CCNS transition workshop, May 2016.
116. University of Florida, April 2016.
117. University of Newcastle, April 2016.
118. Workshop on Advances in Manifold-valued Data, Nottingham, U.K., April, 2016.
119. ENAR 2016, invited section, March 2016.
120. Princeton University, Wilks seminar, March 2016.
121. USC Enigma, Feb 2016.
122. USC Data Science and Statistics, Feb 2016.
123. Banff Workshop on NDA, Banff, BIRD Institute, Jan 2016.
124. CMStatistics, London, Dec 2015.
125. Oxford University, Dec 2015.
126. Warwick University, Dec 2015.
127. iBRIGHT 2015, MD Anderson, Nov 2015.
128. University of Virginia, Oct 2015.
129. Florida State University, September 2015.
130. JSM 2015, Seattle, August 2015
131. SAMSI summer school on CCNS, July 2015
132. Frontier of Functional Data Analysis, Banff, BIRD Institute, July 2015.
133. Human Brain Mapping, June, 2015.
134. Frontier of Statistics, Chinese Academy of Science, June, 2015.
135. ASA SI imaging workshop, University of Michigan, May, 2015.
136. Department of Biostatistics, New York University, April 2015.
137. ENAR 2015, Miami, March 2015.
138. MD Anderson Cancer Center, December, 2014.
139. Big Data Workshop in Shanghai, November 2014
140. Department of Biostatistics, Emory University, August 2014
141. JSM 2014, August 2014.
142. Academic Sinica, Peking, July 2014
143. School of Mathematics, Sun Yat-sen University, July 2014
144. IMS Pacific Rim, Taiwan, July 2014
145. Statistica Sinica, Taiwan, June 2014
146. Department of Mathematics, National Sun Yat-sen University, Taiwan, June 2014
147. Department of Finance Mathematics and Engineering, Southern China University of Science and Technology, May 2014
148. Department of Mathematics, Southeast University, May 2014
149. Department of Mathematics, Nanjing Normal University, May 2014
150. Department of Statistics, Chinese University of Hong Kong, May 2014
151. Department of Mathematics, Nanyang Technological University, May 2014
152. Department of Statistics, National University of Singapore, May 2014.
153. BIRS for Mathematical Innovation and Discovery, Canada, Feb, 2014.

154. Department of Applied Mathematics and Statistics, John Hopkins University, November, 2013.
155. Department of Biostatistics, Brown University, November, 2013.
156. Department of Statistics, Virginia Tech University, September 2013.
157. JSM 2013, August 5-10, 2013
158. IPMI 2013, June 28-July 3, 2013
159. HBM 2013, June 15-20, 2013
160. SAMSI NDA program, June 4-14, 2013
161. Department of Statistics, Purdue University, March 2013.
162. Department of Statistics, University of Michigan, Sep 2012.
163. JSM 2012, invited speaker and organizer.
164. ICSA, Boston, June 2012, Invited Speaker.
165. Mathematical Bioscience Institute, May 2012, Invited Speaker.
166. International Conference on Medical Image Analysis and Clinical Applications, June 2012, Keynote Speaker
167. Human Brain Mapping, June 2012, poster presenter.
168. St Johns Children's hospital. April 2012.
169. ENAR 2012. Washington DC. Invited session organizer and speaker.
170. MICCAI 2011. Sept 2011.
171. Department of Biostatistics, John Hopkins University, Sep 2011.
172. MBIA (Multimodal Brain Image Analysis) 2011 workshop, Sep 2011. Invited Speaker.
173. Research Symposium on Frontier of Statistics, July 2011, Hefei. Invited Speaker.
174. IMS China 2011 Distinguished Lecture Series organizer and speaker, July, Xian, China.
175. Department of Statistics, Fudan University, China, June 2011.
176. Department of Mathematics, Yunnan University, China, July 2011.
177. Department of Mathematics, Southeast University, China, July 2011.
178. Institute of Applied Mathematics, Chinese Academy of Science, June 2011
179. Institute of Automation, Chinese Academy of Science, June 2011.
180. International Workshop on Perspectives on High-dimensional Data Analysis (IWPHDA), at Fields Institute of Mathematical Sciences, Canada, June 2011.
181. Interface Meeting, Invited Section, NISS, June 2011.
182. ENAR 2011. Invited Section, March 2011.
183. Department of Statistics, University of Minnesota, Nov 2010.
184. MICCAI 2010 Selected Poster Presentations, Peking, September 2010.
185. China Institute of Applied Mathematics, Peking, September 2010.
186. Renming University, Peking, September 2010.
187. STIA'10 workshop at MICCAI 2010 as an oral presentation, Peking, September 2010.
188. Department of Biostatistics, University of Michigan, October, 2010.
189. Department of Statistics, Duke University, October, 2010.

190. JSM 2010, Topic Contributed Section, August 2010
191. Center for Structural and Functional Neuroscience, University of Montana, April 2010.
192. Invited speaker at Frontier of Statistical Decision Making and Bayesian Analysis, March, 2010.
193. ENAR 2010, Invited Section, March 2010.
194. Invited speaker at NICDS Centre De Recherches Mathematiques, Nov 2009.
195. Center for Statistical Science, Brown University, Oct 2009.
196. Department of Operational Research and Finance Engineer, Princeton University, Nov. 2009.
197. Department of Epidemiology and Biostatistics, Yale University, Oct 2009.
198. Department of Mathematics and Statistics, Georgia State University, Oct 2009
199. Department of Psychology, UNC at Chapel Hill, Sep 2009.
200. ISMRM 2009, Selected oral and poster presentations. Hanolulu, April 2009.
201. IPMI 2009, Selected poster presentation, Virginia, July, 2009.
202. ENAR 2009, Invited Section, March 2009.
203. MICCAI 2009, Selected presentation, London, Sep, 2009.
204. MMBIA 2009, Selected oral and poster presentations, August 2009.
205. ICSA 2009, Invited Section, San Francisco, June 2009.
206. JSM 2009, Invited Section, Washington D.C., August 2009.
207. SPIE Medical Imaging 2009, FL, Two Selected Oral Presentations, Feb 2009.
208. Department of Biostatistics and Statistics, Wisconsin-Madison, October 2008.
209. JSM 2008, Topic Contributed Section, Salty City, August 2008.
210. Interface Meeting, Invited Section, NISS, May 2008.
211. Department of Statistics, Texas A & M University, April 2008.
212. ENAR 2008, Invited Section, Virginia, March 2008.
213. Department of Statistics, Pennsylvania State University, Dec 6, 2007.
214. JSM 2007, Invited Section Chair and Topic Contributed Section, Salty City, August 2007.
215. ICSA 2007, Raleigh, NC, Invited section organizer and presenter, July 2007.
216. ENAR 2007, Atlanta, GA, March 2007.
217. SAMSI, Durham, NC, December 7, 2006.
218. JSM 2006, Seattle, Washington, August 2006.
219. MMBIA 2006: IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis, Selected Poster Presentation, July 2006.
220. ICSA 2006, June 2006.
221. Department of Epidemiology and Public Health, Yale University, April 2006.

222. Division of Biostatistics, New York University, April 2006.
223. Department of Statistics, George Washington University, October 2005.
224. Eighth IMS North American New Researchers' Conference, August 2005.
225. Statistical Society of Canada, Invited speaker, June 2005.
226. Department of Statistics, Kansas State University, April 2005.
227. ENAR meeting, Austin, TX, March, 2005. ENAR Invited Section Chair and speaker.
228. Columbia-UPenn-Yale Forum on Statistics in Psychiatry, May 2004.
229. International Biometric Society, ENAR 2004, March 2004.
230. The Seventeenth New England Statistics Symposium, University of Connecticut, April, 2003.
231. Department of Biostatistics, Harvard University, March 2003.
232. Department of Biostatistics, Columbia University, February 2003.
233. Department of Mathematics and Statistics, University of Guelph, Canada, Jan, 2003.
234. Department of Statistics, University of Manitoba, Canada, Jan, 2003.
235. Department of Mathematics and Statistics, Memorial University of Newfoundland, Dec, 2002.
236. Department of Biostatistics, University of Alabama at Birmingham, December 2002.
237. Fox Chase Cancer Center, Dec, 2002.
238. University of Texas School of Public Health at Houston, November 2002.
239. First Annual Proteomics Data Mining Conference, Duke University, September 23,2002.
240. ENAR meeting, Washington, D.C, March 2002. IMS Invited Section Chair.
241. ICSA meeting, Hong Kong, August 2001. Section Chair and IMS invited speaker.
242. SSC meeting, Vancouver, June 2001.
243. Frontier Science and Technology Research Foundation, Inc, Boston, January 2001.
244. Psychometric Society meeting, Vancouver, July, 2000.
245. SSC meeting, Ottawa, June, 2000.
246. Department of Mathematics and Statistics, University of Victoria, Feb, 2000.
247. Department of Methodology and Statistics, University of Utrect, Netherland, October 1999.

Teaching Record

- Courses

  Columbia University, 2003 fall

Nonparametric Statistics
University of North Carolina at Chapel Hill,
2007-2010, 2012. 2014, Bios 763. Generalized Linear Models and Applications. 16 students
2011- Bios 773 Statistical and Mathematical Analysis of Medical Images. 10 students
2014- Bios 762. Regression Models and Applications. 16 students
2015- Bios 762. Regression Models and Applications. 30 students.
2020, 2021, 2022, 2023 Bios 772 Statistical and Mathematical Analysis of Medical Images. 6+7+10+12 students

- **MS. Students supervised**

Zhida Wu (Biostatistics),
Jiaorui Tang (Biostatistics)

- **Ph.D. Students supervised**

Columbia University
Yimeng Lu: 2006. Co-advise with Eva Petkova
Title: Clustering Functional Data.
First Job: Biostatistician at *Novartis*.
University of North Carolina at Chapel Hill
Xiaoyan Shi: 2008. Co-advise with Joseph G. Ibrahim
Title: Model Diagnostics and Semiparametric Models for Neuroimaging Data.
Current Job: Senior Statistician at SAS
Honor: ENAR Distinguished Student Paper Awards, ENAR 2008;
Best Doctor Dissertation award of Biostatistics department at UNC-CH.
Yimei Li : 2009. Joint with Joseph G. Ibrahim
Title: Statistical Analysis of Complex Neuroimaging Data.
Current Job: Associate member of Biostatistics at St Johns Children's hospital
Honor: ENAR Distinguished Student Paper Awards, ENAR 2009,
Kupper Publication Awards.
Ramon I. Garcia: 2009 Joint with Joseph G. Ibrahim
Title: Variable Selection for Models with Missing Data
First Job: Student at a seminary school.
Honor: ENAR Distinguished Student Paper Awards, ENAR 2009.
Hyunsoon Cho: 2009 Joint with Joseph G. Ibrahim
Title: Diagnostic Measures for Statistical Models
First Job: Biostatistician at National Cancer Institute
Current Job: Associate Professor, National Cancer Center of Korean
Ying Yuan: 2011 Joint with Steven Marron
Title: Statistical Analysis of Symmetric Positive Definite Matrices

First Job: Postdoctor fellow.
Second Job: Assistant member of Biostatistics at St Johns Children's hospital
Honor: ICSA Distinguished Student Paper Awards, ICSA 2011.

Zhaowei Hua: 2011 Joint with David B. Dunson
Title: Bayesian Analysis of Varying Coefficient Models and Applications.
First Job: Millennium, Biostatistician

Ja-an Lin, 2013 (Biostatistics), Joint with J. G. Ibrahim
Title: Statistical Analysis of Ultra-high Dimensional Imaging Genetic Data.
Honor: ENAR Distinguished Student Paper Awards, ENAR 2013.
First Job: FDA, Biostatistician

Khondker Zakaria, 2013 (Biostatistics), Joint with J. G. Ibrahim
Title: Bayesian Analysis of Ultra-high Dimensional Imaging Genetic Data.
Honor: ENAR Distinguished Student Paper Awards, ENAR 2013.
First Job: Medivation Inc, Biostatistician

Emil Cornea, 2014 (Biostatistics), Joint with J. G. Ibrahim
Title: Statistical Analysis of Data on Riemannian Symmetric Space.
First Job: Research Assistant Professor, UNC-Chapel Hill, Psychiatry

Michelle Miranda, 2014 (Statistics), Joint with J. G. Ibrahim
Title: Bayesian Analysis of Ultra-high Dimensional Imaging Data.
First Job: Postdoctoral fellow, NeuroMat Institute, Cidade Universitária
Current Job：Assistant Professor at University of Victoria, Canada

Qiang Sun, 2014 (Biostatistics), Joint with J. G. Ibrahim
Title: Regularization Methods for High Dimensional Data.
Honor: ICSA 2013 and 2014 Distinguished Student Paper Awards
The Grizzle lecture for Best Biostatistics Alumni Awards at UNC-Chapel Hill.
First Job: Postdoctoral fellow, Princeton University
Current Job: Associate Professor at University of Toronto

Shaobang Rao, 2014 (Biostatistics), Joint with J. G. Ibrahim
Title: Statistical Analysis of Diffusion Weighted Imaging Data.
First Job: Biostatistician, Pfizer.

Xiaolei Zhou, 2015 (Biostatistics)
Title: Model Assessment for Models with Missing Data
First Job: Biostatistician, RTI.

Yang, Hojin, 2016 (Biostatistics), Joint with J. G. Ibrahim
Title: Learning Methods in Reproducing Kernel Hilbert Space Based on High-dimensional Features
First Job: Postdoctoral fellow, MD Anderson
Second Job： Assistant Professor at University of Navada

Eunjee Lee, 2016 (Statistics), Joint with J. G. Ibrahim
Title: Bayesian Analysis of Survival Models with High-dimensional Imaging and Genetic Data.
Honor: ENAR 2015 Distinguished Student Paper Awards
ASA SI 2017 Distinguished Student Paper Awards
First Job: Research Assistant Professor, University of Michigan
Second Job： Assistant Professor, Chungnam National University, Korea.

Bryant Christopher, 2016 (Biostatistics), Joint with J. G. Ibrahim

Title: Bayesian Analysis of Brain Networks
First Job: XXX

Yu Yang, 2017 (Statistics), Joint with Steve Marron
Title: Advanced Statistical Methods for Imaging Genetic Data.
Honor: ICSA 2016 Distinguished Student Paper Awards
First Job: Business Analyst in Goldman Sachs

JingWen Zhang 2018 (Biostatistics), Joint with J. G. Ibrahim
Title：Advanced Methods for discovering genetic markers associated with high dimensional imaging data.
First Job：Postdoctoral Fellow， Harvard Biostatistics

Yue Wang 2018 (Biostatistics), Joint with Ibrahim
Title：Partial least squares method for functional regression models with high dimensional neuroimaging data.
First Job：Postdoctoral Fellow， UW Biostatistics
Second Job：Assistant Professor， Arizona State University

Yufeng Leo Liu 2018 (Statistics), Joint with Yufeng Liu
Title：Advanced Statistical Learning Techniques for High-Dimensional Imaging Data
First Job：R&D， Uber at SF CA。

Chao Huang 2019 (Biostatistics)
Honor: ASA SI 2014 Distinguished Student Paper Award
Title： Advanced Statistical Learning Methods for Heterogeneous Imaging Data.
First Job: Assistant Professor at Florida State University

Fan Zhou 2019 (Biostatistics) Joint with Haibo Zhou
Title： Advanced Analysis Methods for Large-scale Structured Data.
First Job: Associate Professor at Shanghai University of Finance and Technology
Honor: ICSA 2019 New researcher award。
UNC Bios 2020 Margolin award.

Jasmine Yang 2019 (Statistics) Joint with Steve Marron
Title：Statistical Methods for Deconvolution in Cancer Genomics
First Job: Statistician at AbbVie

Bingxin Zhao 2020 （Biostatistics）
Title：Topics in high-dimensional asymptotics of ridge-type estimators.
First Job: Assistant Professor at Purdue University
Second Job: Assistant Professor in Department of Statistics and Data Science at University of Pennsylvania
Honor: ENAR 2020 Distinguished Student Paper Awards
Dean’s Distinguished Dissertation Awards for Biological and Life Sciences, 2022.

Wang Xifeng 2021 (Biostatistics) Joint with J.G. Ibrahim
Title：Statistical Learning Methods for Diffusion Weighted Imaging
First Job: Statistician at AbbVie

Yue Shan 2021 (Biostatistics) Joint with Yun Li
Title：Statistical Learning Methods for Imaging Genetics

First Job: Statistician at Pharmaceutical company in Shanghai

Ziliang Zhu 2021 (Biostatistics) Joint with Joseph G. Ibrahim
Title：Statistical Learning Methods for Imaging Genetics
First Job: Statistician at Google Data Science

Tomlinson, Chalmer Edward 2022 (Biostatistics) Joint with Sean Simpson
Title: Using Novel Statistical Methods and Network Science to Understand Brain Function.

Tianyou Luo 2023 (Biostatistics) Joint with Yun Li.
Title: Statistical Learning Methods in Imaging Genomics.
First Job: R&D at a tech company.

North Carolina State University

Luo, Shikai (Statistics), Joint with Song, R.
Current Position: R & D leader at Byteby

- **Visiting Ph.D. Students Supervised:**

Meiyan Huang (South Medical University)
Honor: ASA Imaging Section Best paper award
First Job: Assistant Professor at South Medical University

Xinchao Luo (East Normal University)
First Job: Janssen R&D in Shanghai

Wenliang Pan (Sun Yat-Sen University)
First Job: Associate Professor at Sun Yat-Sen University

Yuan Yu (Shanghai University of Finance and Econometrics)

First Job: Assistant Professor at Shangdong University of Science and Technology

Li Heng (Beijing Institute of Technology)

First Job: Assistant Professor at Southern China University Science and Technology

Hao Wang (Northeast Normal University)

First Job: Assistant Professor at Dongbei University of Finance and Economics

Youquan Pei (Shanghai University of Finance and econometrics)

First Job: Assistant Professor at Shangdong University

Ting Li (Fudan University)

Current Job: Associate Professor at Shanghai University of Finance and econometrics

Liming Zhong (South Medical University)

First Job: Assistant Professor at South Medical University

Di Xiong （Shanghai University）

First Job: Assistant Professor at Shanghai University

Ke Zhang (Northeast Normal University)

Current Ph.D. Students:

University of North Carolina at Chapel Hill

Yue Yang (Biostatistics)		(on going)
Xinjie Qiao (Biostatistics)		(on going)
Xiaoqi Li (Health Informatics)		(on going)
Jie Cheng (Biostatistics)	Joint with Haibo Zhou	（on going）
Owen Jiang（Biostatistics）		（on going）
Shuai Huang (Biostatistics)	Joint with Yun Li	(on going)
Peter Guan (Biostatistics)	Joint with Joe Ibrahim	(on going).
Runpeng Dai (Biostatistics)		(on going).

Master Students:

Mingcheng Hu (Biostatistics) （on going）

- **Ph.D. committee**

Columbia University

Hui Wang (Statistics)
Statistical Analysis of Genetic Data, 2004;

Songmei Wu (Biostatistics)
Statistical Analysis of PET Data, 2004;

University of North Carolina at Chapel Hill

Juhyun Park (Biostatistics):
Bayesian Density Regression and Predictor-dependent clustering, 2008;

Meagan Clement (Biostatistics):
Analysis Techniques for Diffusion Tensor Imaging Data, 2008;

Jingdan Zhang (Computer Science):

Object Detection and Segmentation using Discriminative Learning, 2008;
Wei Gao (Biomedical Engineer):
Functional Brain Network and Design for Diffusion Tensor Imaging, 2009.
Seunggeun Lee (Biostatistics):
Principal Component Analysis of Genetic Data, 2010.
Liddy Chen (Biostatistics):
Trial design issues in complex survival models, 2010.
Suprateek Kundu (Biostatistics):
Bayesian nonparametric methods for conditional distributions, 2012.
Matthew W Wheeler (Biostatistics):
Gaussian Process Mixed Membership Models 2012.
Baiming Zou (Biostatistics):
Robust and Efficient Statistical Inference for Electronic Medical Record Data and Image Data. 2013.
Verde, Audrey Rose (Neurobiology):
2014
Eldeniz, Cihat (BME)
Quantitative MR T1 measurements with TOWERS: T-One With Enhanced Robustness and Speed 2014

M.S. Committee
University of North Carolina at Chapel Hill
Jocelyn M. Beville (Orthodontics):
Three dimensional analysis of bone anchored maxillary protraction in growing class III patients. 2012

- Postdoctoral/Research fellows/Visiting scholars supervised

Columbia University

Rachel Marsh (2003-2005)
Topic: Functional and Structural MRI and Applications in Psychiatry
Daniel Gorman (2004-2006)
Topic: Functional and Structural MRI and Applications in Psychiatry
Jose Amat (2003-2006)
Topic: Functional and Structural MRI and Applications in Psychiatry
Tiziano Colibazzi (2004-2006)
Topic: Functional and Structural MRI and Applications in Psychiatry
Nianshen Tang (2006)
Topic: Semiparametric Methods for Neuroimaging Data.
Miguel Moreno-Iniguez (2005-2006)
Topic: Functional and Structural MRI and Applications in Psychiatry

Yale University

Martha Skup (2010) Visiting student from Yale University.

University of North Carolina at Chapel Hill

Xiaoyan Shi (2008-2009)
Topic: Semiparametric Methods for Neuroimaging Data.
Current Position: Senior Statistician and Software Engineer at SAS

Huang Tao (2012-2015)
Topic: Statistical Analysis of Manifold Data.

Niansheng Tang (2009, 2013)
Topic: Statistical Diagnostic Methods.
Current Position: Distinguish Professor at Yunnan University, IMS Fellow

Ruixin Guo (2009-2011)
Topic: Machine Learning Methods for Neuroimaging Data.
Current Position: Assistant Professor at University of Colorado Denver

Zaixing Li (2011-2012)
Topic: Functional Methods for Neuroimaging Data.
Current Position: Professor at China University Mining and Technology

Ying Yuan (2011-2011)
Topic: Statistical Analysis of Imaging and Genetic Data.
Current Position: R&D researcher

Linglong Kong (2010-2012)
Topic: Robust Methods for Neuroimaging Data.
Current Position: Professor of Statistics at University of Alberta, Canada
And Canada Research Chair.

Jiaping Wang (2009-2013)
Topic: Multiscale Adaptive Methods for Functional Imaging Data.
Current Position: Assistant Professor of Statistics at University of North Texas

Partha Sarathi Mukherjee (2011-2012)
Topic: Statistical Analysis of Diffusion Tensor Data.
Current Position: Assistant Professor of Statistics at Boise State University

Zhaohua Lu (2011-2013)
Topic: Dynamic Analysis of Functional Data.
First Position: Research Assistant Professor at Penn State University
Current Position: R&D at a pharmaceutical company.

Dan Yan (2013-2014)
Topic: Statistical Analysis of Tensor Data.
First Position: Assistant Professor at Rutgers University
Current Position: Assistant Professor at Hong Kong University/

Jing Chang (2012-2014)
Topic: Statistical Analysis of Imaging and Genetic Data.

Qibing Gao (2012-2013)
Topic: Diagnostic measures for functional data
Current Position: Professor at Nanjing Normal University

Dan Shen (2012-2014)
Topic: Statistical Analysis of Imaging Data.
Current Position: Assistant Professor at South Florida University

Mihye Ahn (2011-2015)
Topic: Statistical Analysis of Functional Imaging Data.
Current Position: Associate Professor with tenure at University of Navada
Max Chen (2014-2015)
Topic: Statistical Analysis of Imaging Data.
Current Position: R&D at Sandia National Laboratories
Yuai Hua (2011-2015)
Topic: Statistical Analysis of Perfusion Images.
Baiguo An (2014-2015)
Topic: Adaptive Smoothing Methods for Functional Imaging Data.
Current Position: Associate Professor at Central China Finance University
Fangchan Xie (2014-2015)
Topic: Zero-inflated models
Current Position: Professor, Nanjing Normal University
Dehan Kong (2013-2016)
Topic: Functional Data Analysis in Neuroimaging Applications.
Current Position: Associate Professor with tenure at University of Toronto.
Yize Zhao (2014-2016)
Topic: Statistical Analysis of Imaging and Genetic Data
First Position: Assistant Professor at Weill Cornell Medicine, Cornell University.
Current Position: Associate Professor at Yale University, Biostatistics
Benjamin Risk (2015-2017)
Topic: Statistical analysis of functional MRI data.
Current Position: Associate Professor at Emory University.
Zhengwu Zhang (2015-2017)
Topic: Shape analysis and network analysis.
First Position: Assistant Professor at Rochester University
Current Position: Assistant Professor of Statistics at UNC-CH since July 2020
Kaijie Xue (2017-2018).
Topic: Functional data analysis of neuroimaging data.
Current Position: Professor of Statistics at Shanghai University of International Business and Economics since July 2023
Kaixuan Yu (2016-2018)
Topic: Cancer genomics analysis
Current Position: R&D leader at DiDi Chuxing
Jin Yan (2016-2018)
Topic: Cancer imaging analysis
Rongji Liu (2016-2018)
Topic: Cancer imaging and genetic analysis
Current Position: Assistant Professor of Statistics at Florida State University.
Hai Shu (2016-2018)
Topic: Big data integration.
Current Position: Assistant Professor of Biostatistics at New York University.
Ziqi Chen (2016-2018)
Topic: Cancer Imaging Analysis.
Current Position: Professor, East China Normal University

Kim, Junghi (2016-2018)
Topic: Cancer genetic analysis.
Current Position：Statistician at FDA
Ting Li (2023-2024)
Topic: Causal inference in biomedical studies.
Current Position: Associate Professor of Statistics at Shanghai University of Finance and econometrics

Current:

Tengfei Li (2015-)
Topic: Missing data in large-scale neuroimaging data analysis.
Current Position: Research Assistant Professor at UNC Radiology

Contracts & Grants

Pending PI Research Support

RF1AG085581 Zhu (Contact-PI) and Li (MPI) 21 percentiles
Construction and Application of Comprehensive Knowledge Graphs for Alzheimer's Disease.

Ongoing PI Research Support

1R01AR082684 Niethammer (Contact-PI) and Zhu (MPI)
4/1/2024-3/31/2029
A comprehensive imaging genetics framework for osteoarthritis research
Total Direct Cost: 2,500,000

Gillings Innovation Laboratory (GIL) Zhu （Contact-PI） and Yun Li (MPI).
12/1/2023-11/30/2025
Knowledge-enhanced Foundation Models for Brain-related Disorders.
Total Direct Cost: 100,000

1U01AG079847, Zhu (subcontract-PI) from UTHSC at Houston. **9/1/2023-8/31/2028**
AIM-AI: an Actionable, Integrated and Multiscale genetic map of Alzheimer's disease via deep learning
Total Direct Cost: 600,000

RF1AG082938 Zhu （Contact-PI） and Zhao (MPI) 9/1/2023-8/31/2026
Mapping the Genetic-Imaging-Clinical Pathway for Alzheimer's Disease
Total Direct Cost: 1,680,000

Completed PI and MPI Research Support

1 R01MH116527 Zhang (Contact-PI) and Zhu (MPI) 3/1/2018-2/28/2024
Analysis of Big Data Squared in Biomedical Studies
Total Direct Cost: 1,600,000

CPRIT senior Investigator of Texas State. Zhu (PI) 4/1/2016-4/1/2018
Total Direct Cost: 4M

R01EB020426 (Lin, Chen, Jojic, and Zhu) 4/15/2014-4/15/2017
SCH: Proactive Health Monitoring Using Individualized Analysis of Tissue Elastic*
Role. Co-Principal Investigator. Total Direct Cost: 657,033

T32MH106440 (Zhu (primary) and Gilmore) 7/1/2015--6/30/2020
NIMH
Biostatistics and Mental Health Neuroimaging and Genomics Training Grant
Role. Principal Investigator. Total Direct Cost: 1,844,696

SES-1357666 (Chow and Zhu) 9/15/2014--8/31/2017 1%
National Science Foundation
Developing Dynamic Tools for Analyzing Irregularly Spaced Longitudinal Affect Data
Role. Co-Principal Investigator. Total Direct Cost: 350,000

DMS-1407655 (Zhu) 9/15/2014--8/31/2018 2%
National Science Foundation
Advanced Statistical Methods for Functional Imaging Data.
Role. Principal Investigator. Total Direct Cost: 300,000

5 R01 MH086633-02 (Zhu) 3/1/2010--11/30/19 20%
National Institute of Mental Health
Statistical Analysis of Biomedical Imaging Data in Curved Space
Role: Principal Investigator Total Direct Cost: 3,300,000

BCS-0826844 (Chow and Zhu) 9/15/2008--8/31/11 10%
National Science Foundation
Collaborative Research: Developing Non-Stationary and Network-based Methods for Modeling the Perception and Physiology of Emotion
Role: Co- Principal Investigator Total Direct Cost: 423,802

SES-0643663 (Zhu) 4/1/2006--3/31/10 9%
National Science Foundation
Diagnosing Statistical Models for Longitudinal and Family Data
Role: Principal Investigator Total Direct Cost: 94,819

5 R21 AG033387-02 (Zhu) 3/1/2009--2/28/11 15%
National Institute on Aging

Longitudinal Analysis of Biomedical Imaging Data
Role: Principal Investigator Total Direct Cost: 275,000

OVERLAP
NONE

Peer-reviewed Full Papers in Conference Proceedings

(MICCAI and IPMI are the most preeminent medical imaging conferences; KDD, NeurIPS, AAAI and ICDM are the most preeminent data mining, machine learning, and artificial intelligence conferences)

1. Shuai Li, Ziqi Chen, Hongtu Zhu, Christina Dan Wang, Wang Wen. Nearest-Neighbor Sampling Based Conditional Independence Testing. *AAAI 2023*.
2. Y Sun, Y. Huang, H. Zhu, F. Zhou. Adversarial learning of distributional reinforcement learning. *ICML 2023*.
3. Li, T., Shi, C.,Wang, J. L., Zhou, F., Zhu, H.T. Optimal sequential treatment allocation for efficient policy evaluation. *NeurIPS 2023*.
4. Li, S., Zhang, Y., Zhu, H., Wang, C. D., Shu, H., Chen, Z., Sun, Z., and Yang, Y. K-neareast-neighbor local sampling based conditional independence testing. *NeurIPS 2023*.
5. C. Feng , J. Hu , X. Wang, S. Hu , B. Zhu, X. Wu , Hongtu Zhu and S. Lyu. Controlling Neural Style Transfer with Deep Reinforcement Learning. *IJCAI 2023*.
6. Wu, G., Song, G., Lv, X., Luo, S., Shi, C. and Zhu, H. DNet: Distributional network for distributional individualized treatment effects. *KDD 2023*.
7. Hai Shu, Ronghua Shi, Hongtu Zhu, Ziqi Chen. mFI-PSO: A Flexible and Effective Method in Adversarial Image Generation for Deep Neural Networks. *The 2022 International Joint Conference on Neural Networks.* Oral presentation.
8. X Tang, F Zhang, Y Wang, D Shi, B Song, Y Tong, H Zhu, J Ye. Value Function is All You Need: A Unified Learning Framework for Ride Hailing Platforms, *KDD 2021*. Oral presentation
9. Liu， C., Feng, H., Xu, J., Qin, Z. and Zhu, H. Optimizing bike-share repositioning: networked inventory management with spatiotemporal modeling. *IEEE Big Data 2021*.
10. **Fan Zhou**, Xiaocheng Tang, Chenfan Lu, Fan Zhang, Zhiwei Qin, Jieping Ye, and Hongtu Zhu "Multi-Objective Distributional Reinforcement Learning for Large-Scale Order Dispatching", *IEEE ICDM 2021*.
11. Qin, Z., Zhu, H.T., and Jieping Ye. Reinforcement learning for ridesharing: a survey. *IEEE Intelligent Transportation Systems Conference 2021*.
12. Guojun Wu, Yanhua Li, Shikai Luo, Ge Song, Qichao Wang, Jing He, Jieping Ye, Xiaohu Qie and ***Hongtu Zhu***。 A Joint Inverse Reinforcement Learning and Deep Learning Model for Drivers' Behavioral Prediction. *CKIM 2020*.
13. Xiaocheng Tang, Zhiwei Qin, Fan Zhang, Zhaodong Wang, Zhe Xu, Yintai Ma,

Hongtu Zhu, Jieping Ye. A Deep Value-network Based Approach for Multi-Driver Order Dispatching. *KDD 2019* (acceptance rate <15%).

14. Tao Huang, Yintai Ma, Zhiwei Tony Qin, Jianfeng Zheng, Henry X Liu, Hongtu Zhu, Jieping Ye。 Origin-destination Flow Prediction with Vehicle Trajectory Data and Semi-supervised Recurrent Neural Network。 *2019 IEEE International Conference on Big Data (Big Data)*，1450-1459。
15. **Zhou, F., Li, T.F.,** Zhou, H.B., Ye, J. P. and ***Zhu, H.T***. Graph-Based Semi-Supervised Learning with Non-ignorable Non-response. *NeurIPS 2019* (acceptance rate <20%).
16. Haipeng Chen, Yan Jiao, Zhiwei Qin, Xiaocheng Tang, Hao Li, Bo An, Hongtu Zhu, and Jieping Ye. InBEDE: Integrating Contextual Bandit with TD Learning for Joint Pricing and Dispatch of Ride-Hailing Platforms. *IEEE International Conference on Data Mining (ICDM), 2019* (acceptance rate <9%).
17. **Lin, Z. H.** and ***Zhu, H.T.*** MFPCA: Multiscale Functional Principal Component Analysis. *AAAI 2019* (acceptance rate <18%).
18. **Zhang, J.W**., Ibrahim, J. G., **Li, T.F.**, and ***Zhu, H.T***. A Powerful Global Test Statistic for Functional Statistical Inference. *AAAI 2019* (acceptance rate <18%).
19. **Shu, H.** and ***Zhu, H.T.*** Sensitivity analysis of deep neural networks. *AAAI 2019.* (acceptance rate <18%)
20. **Tengfei Li, Xifeng Wang, Tianyou Luo, Yue Yang,Bingxin Zhao, Liuqing Yang, Ziliang Zhu**, ***Hongtu Zhu*** (2019). Adolescentfluid intelligence prediction from regional brain volumes and cortical curvatures using BlockPC-XGBoost.In *Proceedings of the First Challenge in Adolescent Brain Cognitive Development Neurocognitive Prediction (ABCD-NP)*, held in conjunction with MICCAI 2019, 11791,167-175.
21. Z. Wang, Z. (Tony) Qin, X. Tang, J. Ye, and H. Zhu. Deep Reinforcement Learning with Knowledge Transfer for Online Rides Order Dispatching. *IEEE International Conference on Data Mining (ICDM), 2018.*
22. **Dai, L., Li, T.,Shu, H., Zhong, L.,** Shen, H., and ***Zhu, H***. (2018). Automatic brain tumor segmentation with domain adaptation. *Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries (BrainLes 2018).*
23. **Tengfei Li, Fan Zhou, Ziliang Zhu, Hai Shu,** and ***Hongtu Zhu***. A Label-Fusion-Aided Convolutional Neural Network for Isointense Infant Brain Tissue Segmentation. *ISBI 2018*.
24. **R. Liu, C. Huang, T. Li, L. Yang,** and ***Hongtu Zhu.*** Statistical Disease Mapping for Heterogeneous Neuroimaging Studies. *ISBI 2018*.
25. **Zhang, J.W.,** Ibrahim, J.G., R.C. Knickmeyer, M. Styner, Gilmore, J. H., and ***H. Zhu.*** HFPRM: Hierarchical Functional Principal Regression Model for Diffusion Tensor Image Bundle Statistics. *IPMI 2017*.
26. **F. Zhou, T. Li, H. Li**, and ***H. Zhu***. TPCNN: Two-phase Patch-based convolutional Neural Network for Automatic Brain Tumor Segmentation and Survival Prediction. *The Multimodal Brain Tumor Segmentation Challenge: MICCAI BRATS 2017.*
27. Pan, W. L., Styner, M., and ***Zhu, H.*** Conditional local distance correlation for manifold-valued data. *IPMI 2017*. Oral.
28. S. Yang, Vladimir Jojic, Jun Lian, Ronald Chen, Hongtu Zhu, and Ming Lin.

Classification of Prostate Cancer Grades and T-Stages based on Tissue Elasticity Using Medical Image Analysis. *MICCAI 2016.*

29. **Y. Zhao,** F. Zou, **Z. Lu,** R.C. Knickmeyer, and ***H. Zhu.*** Bayesian Feature Selection for Ultra-high Dimensional Imaging Genetics Data. *MICCAI Workshop on Imaging Genetics, 2015.*
30. **Luo, X. C.,** Zhu, L. X., Kong, L. and ***Zhu, H.T.*** Functional Nonlinear Mixed Effects Models For Longitudinal Image Data. *Information Processing in Medical Imaging (IPMI)* 2015. (acceptance rate <28%)
31. **Shen, D.** ***Zhu, H.T.*** MWPCR: Multiscale Weighted Principal Component Regression for High-dimensional Prediction. *Information Processing in Medical Imaging (IPMI)* 2015. (acceptance rate <28%)
32. **Huang, C.,** Niethammer, M., **Liang, S.,** ***Zhu, H.T.*** Segmentation of longitudinal knee MRI data. *Information Processing in Medical Imaging (IPMI)* 2013. (acceptance rate <32%)
33. **Yuan, Y.,** Gilmore, J., Geng, X. J., Styner, M., Chen, K. H., Wang, J. L., and ***Zhu, H.T.*** A longitudinal functional analysis framework for analysis of white matter tract statistics. *Information Processing in Medical Imaging (IPMI)* 2013. (acceptance rate <32%)
34. Y. Wang, G. Li, **M. Ahn,** J. Nie, H. Zhu, D. Shen, L. Guo. Mapping longitudinal cerebral cortex development using diffusion tensor imaging. *SPIE Medical Imaging, 2013.* Oral presentation.
35. A. R. Verde, J.B. Berger, A. Gupta, M. Farzinfar, A. Kaiser, V. W. Chanon, C. A. Boettiger, C. Goodlett, Y. Shi, G. Gerig, S. Gouttard, C. Vachet, H. Zhu, M.A. Styner, The UNC-Utah NA-MIC DTI framework: atlas based fiber tract analysis with application to a study of nicotine smoking addiction. *SPIE Medical Imaging, 2013.* Oral presentation.
36. A.E. Lyall, B. Paniagua, **Z. Lu,** H. Zhu, F. Shi, W. Lin, D. Shen, J. H. Gilmore and M. Styner. Longitudinal lateral ventricle morphometry related to prenatal measures as a biomarker of normal development, *MICCAI workshop on Pediatric and Perinatal Imaging (PaPI)* 2012, Nice, France, Oct. 1, 2012.
37. **J. Wang,** ***H. Zhu***, J.Q. Fan, K. Giovanello,, and Lin, W. L. Multiscale Adaptive Smoothing Model for the Hemodynamic Response Function in fMRI, *MICCAI*, LNCS 6892, 269-276, *2011.* (acceptance rate <30%)
38. **Li, YM**, J. Gilmore, **J.P. Wang,** M. Styner, W. Lin, and ***Zhu, HT.*** Two-stage spatial adaptive analysis of twin neuroimaging data. *Multimodal Brain Image Analysis.* Lecture Notes in Computer Science, 2011, Volume 7012/2011, 102-109.
39. ***Zhu, H.T***., Styner, M., **Li, Y.M.**, Kong, L. N., Shi, W., Lin, W., Coe, C., and J. H. Gilmore. Multivariate Varying Coefficient Models for DTI Tract Statistics. *MICCAI*, 690-697, *2010.* (acceptance rate <32%)
40. **Gao, W.**, Zhu, H.T., Giovanello, K. S., and Lin, W. Multivariate network-level approach to detect interactions between large-scale functional systems. *MICCAI*, 298-295, *2010.* (acceptance rate <32%)
41. Chen, Y.S., Ji, S., Wu, X., An, H.Y. Zhu, H.T., Shen, D. G., and Lin, W. Simulation of brain mass effect with an arbitrary lagrangian and eulerian FEM. *MICCAI*, 274-281, *2010.* (acceptance rate <32%)

42. ***Zhu, H.T.,*** **Li, Y. M.**, Ibrahim, J. G., Lin, W., Shen, D. MARM: multiscale adapative regression for neuroimaging data. *Information Processing in Medical Imaging (IPMI)*, 314-325, 2009. (acceptance rate <32%)
43. **Shi, X.**, Styner, M., Liberman J., Ibrahim, J. G., Lin, W., and ***Zhu, H.T.*** Intrinsic regression models for manifold-value data. *International Conference on Medical Imaging Computing and Computer Assisted Intervention (MICCAI)*,192-199, *2009*. (acceptance rate <32%)
44. **Yap, P.T.**, Wu, G.R, Zhu HT, Lin W, Shen DG. Fast Tensor Image Morphing for Elastic Registration, *MICCAI*, 721-729, 2009. (acceptance rate <32%)
45. **Chen, Y. S.**, Zhu, H.T., Shen, D.G., An, H.Y., Gilmore, J., Lin, W.L. Mapping growth patterns and genetic influences on early brain development in twins. *MICCAI*, 232-239, *2009*. (acceptance rate <32%)
46. Z. Liu, Zhu, H.T., B.L. Marks, L.M. Katz, C.B. Goodlett, G.Gerig, M. Styner, Voxel-wise group analysis of DTI, Proceedings of the 6th IEEE International Symposium on Biomedical Imaging ISBI: From Nano to Macro 2009; 807-810. (50% acceptance rate).
47. Tang, S. Y, Fan, Y., Zhu, HT, Shen, D. Regularization of Diffusion Tensor Field Using Coupled Robust Anisotropic Diffusion Filters. *Mathematical Methods in Biomedical Image Analysis (MMBIA) 2009.*
48. **Yap, P. T.**, Wu, G.R., Zhu, HT., Lin, W.L., Shen, DG.. TIMER: Tensor Image Morphing for Elastic Registration. *MMBIA 2009.*
49. **Liu Z**, Zhu HT, Marks BL, Katz LM, Goodlett CB., Gerig G, Styner M. Voxel-wise group analysis of DTI. *ISBI 2009.*
50. ***Zhu HT***, Hao X, Xu DR, Amir R, and Peterson BS. Theoretical analysis of the effects of noise on isotropic diffusion tensors. *MMBIA 2006*.
51. Chen, Y.S., Shen, D. G., Zhu, H. T., An, H. Y., Gilmore, J. H., Lin, W. Hierarchical unbiased group-wise registration for atlas construction and population comparison. *SPIE 2009 on Medical Imaging*.
52. **Li, Y.M.,** ***Zhu, H.T.,*** Chen, Y.S., An, H.Y., Gilmore, J. H., Lin, W., Shen, D. Longitudinal analysis of neuroimaging data. *SPIE 2009 on Medical Imaging*.
53. **Li, Y.M.,** ***Zhu, H.T.,*** Chen, Y.S., Ibrahim, J. G., An, H.Y., Lin, W., Shen, D. Regression analysis of diffusion tensor. *SPIE 2009 on Medical Imaging*.

Peer-reviewed Books and Chapters

1. Cheng, J. and Zhu HT. (2016). Diffusion Magnetic Resonance Imaging (dMRI). In *Handbook of Neuroimaging Data analysis*. Edited by Ombao, H., Lindquist, M., Thompson,W. and Aston, J. Chapman & Hall/CRC, 65-107.
2. Zhu HT, Joseph G. Ibrahim, Hyunsoon Cho, and Niansheng Tang (2010). Bayesian Influence Methods. In *Frontiers of Statistical Decision Making and Bayesian Analysis* (eds. M.-H., Chen, D.K. Dey, P. Muller, D. Sun, and K. Ye). New York: Springer. pp.219-236.
3. Bansal, R., …., Zhu HT (in alphabetic order). Neuroimaging methods in the study of childhood psychiatric disorders. *Lewis's Child and Adolescent*

Psychiatry: A Comprehensive Textbook, Fourth Edition, Edited by Melvin Lewis, 30 pages, Philadelphia, Lippincott Williams & Wilkins, pp. 214-233, 2007.

4. Zhu HT, Liang FM, Gu MG, and Peterson B. Stochastic approximation algorithms for estimation of spatial mixed models. Edited by Sik-Yum, Lee. *Handbook of Computing and Statistics with Application,* Elsevier Science, pp. 399-421, 2007.
5. Zhu HT and Zhang HP. Structure mixture regression models. In *Development of Modern Statistics and Related Topics*, H.P.Zhang and J.Huang (ed.), World Scientific Publisher, New Jersey, pp. 272-287, 2003.
6. Wei BC, Wang F, and Zhu HT. Translate *Bates, D. and Watts, D. (1988). Nonlinear Regression Analysis and its Applications. John Wiley and Sons, Inc., New York*, into Chinese version. Statistics Publisher, Beijing, P.R.China, pp.1-409, 1998.

Refereed papers/articles (Students and post-doctors are highlighted in red) (Zhu serving as the corresponding author is highlighted in blue*).**

Peer-reviewed Papers In Press and Appeared in Journals

Statistical Journals (Annals of Statistics, Journal of American Statistical Association, Biometrika, and Journal of Royal Statistical Society Series B are the top four statistical journals; Biometrics and Annals of Applied Statistics are the very best applied statistical journals.)

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