

# JINGRU ZHANG

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## Contact Information

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Web: <http://www.math.pku.edu.cn/students/1301110029/index.html>

## Education

09/2013-07/2019 PhD, Computational Mathematics  
Beijing International Center for Mathematical Research,  
Peking University, Beijing, P.R.China  
Advisors: Professors Weinan E and Wei Lin  
09/2016-09/2017 Visiting Student  
Department of Statistics,  
University of California, Davis  
Advisor: Professor Hao Chen  
09/2009-07/2013 B.S., Applied Mathematics  
School of Mathematical Sciences,  
Nankai University, Tianjin, P.R.China  
Advisor: Professor Jishou Ruan

## Work Experience

09/2015-01/2016 Teaching Assistant, School of Mathematical Sciences, Peking University: Mathematical Statistics (undergraduate course)  
03/2015-06/2015 Teaching Assistant, School of Mathematical Sciences, Peking University: Algorithms of Big Data Analysis (graduate course)  
03/2014-06/2014 Teaching Assistant, School of Mathematical Sciences, Peking University: Probability Theory (undergraduate course)  
09/2013-01/2014 Teaching Assistant, School of Mathematical Sciences, Peking University: Linear Algebra (undergraduate course)

## Honors and Awards

2018 Outstanding research award, Peking University  
2017 Outstanding research award, Peking University  
2016 Special Scholarship, Peking University  
2015 “5.4” Scholarship, Peking University  
2014 Special Scholarship, Peking University  
2013 Outstanding Graduate, Nankai University

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| 2012 | National Endeavor Fellowship, Nankai University |
| 2011 | First-class Scholarship, Nankai University      |
| 2010 | National Endeavor Fellowship, Nankai University |

### **Academic Activities**

Oral presentation: “Graph-Based Two-Sample Tests for Discrete Data”, ICSA 2018 Applied Statistics Symposium, Rutgers University (June 14, 2018 – June 17, 2018)  
 Participant in the ICIAM, Beijing, China (August 10, 2015 – August 14, 2015)  
 Participant in the Frontiers of Applied and Computational Mathematics, BICMR, China (August 7, 2015 – August 9, 2015)  
 Participant in the 1<sup>st</sup> Joint Conference of A3 Foresight Program, Jeju, Korea, (November 21, 2014 – November 23, 2014)  
 Participant in the IAS focused programs, HKUST (May 12, 2014 – May 15, 2014)

### **Research Interests**

High-dimensional statistics; Computational statistics; Big and complex data analysis

### **Publication**

- Jingru Zhang and Wei Lin (2019). Scalable estimation and regularization for the logistic normal multinomial model. Biometrics.  
<https://doi.org/10.1111/biom.13071>

### **Preprints**

- Jingru Zhang and Hao Chen (2019). Graph-based two-sample tests for data with repeated observations. Submitted.  
<http://www.math.pku.edu.cn/students/1301110029/gtests.pdf>
- Jingru Zhang and Wei Lin (2019+). Principal subspace analysis for high-dimensional compositional data. To be submitted (available upon request).
- Jingru Zhang, Hao Chen, and Xiao-Hua Zhou (2019+). New non-parametric tests for multivariate paired data. To be submitted (available upon request).
- Jingru Zhang, Xiao-Hua Zhou, Xinting Huang, Wenhao Mao (2019+). Doctor profile analysis with social regularization. To be submitted (available upon request).

### **Software (R Package)**

gTests: Graph-Based Two-Sample Tests.

### **Computer Skills**

R, MATLAB, C/C++, Linux

## References

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