

Jun Li

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EXPERIENCE

2019 – Present Associate Professor
Department of Mathematical Sciences, Kent State University
2013 – 2019 Assistant Professor
Department of Mathematical Sciences, Kent State University
2009 – 2013 Research/teaching Assistant
Department of Statistics, Iowa State University
2003 – 2009 Research/teaching Assistant
Department of Physics, Iowa State University

EDUCATION

Jun 2013 Ph.D. in Statistics, Iowa State University.
Dec 2009 Ph.D. in Physics, Iowa State University.
Jul 1999 B.S. in Mathematics, Shan Dong University, Jinan, China

RESEARCH INTERESTS

- High dimensional data inference with applications to biological studies
- High dimensional (online and offline) change point analysis
- Variable selection/ feature selection for high dimensional data
- Nonparametric method

MANUSCRIPTS UNDER REVIEW OR IN REVISION

1. **Li, J.** Max-type and sum-type procedures for online change-point detection in the mean of high-dimensional data.
2. **Li, J.**, Qiu, Y. and Li, L. A neighborhood-assisted Hotelling's T2 test for high-dimensional means.
3. **Li, J.**, Xu, M., Zhong, P.S. and Li, L. Change point detection in the mean of high-dimensional time series data under dependence.

JOURNAL PUBLICATIONS

1. **Li, J.** (2023) Finite sample t-tests for high-dimensional means. *Journal of Multivariate Analysis*. **196**, 105183.
2. Li, L. and **Li, J.** (2023) Online change-point detection in high-dimensional covariance structure with application to dynamic networks. *Journal of Machine Learning Research*. **24**(51), 1-44.
3. Zhong, P. S., **Li, J.** and Kokoszka, P. (2020) Multivariate analysis of variance and change points estimation for high-dimensional longitudinal data. *Scandinavian Journal of Statistics*. doi: 10.1111/sjos.12460.
4. Chen, S. X., **Li, J.** and Zhong, P. S. (2019) Two-sample and ANOVA tests for high dimensional means. *The Annals of Statistics*. **47**, 1443-1474.
5. Joshi, R., Fuller, B., **Li, J.** and Tavana, H. (2018) Statistical analysis of multi-dimensional, temporal gene expression of stem cells to elucidate colony size-dependent neural differentiation. *Molecular Omics*. doi: 10.1039/C8MO00011E .
6. Joshi, R., Thakuri, P., Buchanan, J. B., **Li, J.** and Tavana, H. (2017) Microprinted stem cell niches reveal compounding effect of colony size on stromal cells-mediated neural differentiation. *Advanced Healthcare Materials*. 1700832. doi: 10.1002/adhm.201700832.
7. Ham, S., Thakuri, P., Plaster, M., **Li, J.**, Luker, K., Luker, G. and Tavana, H. (2017) Three-dimensional tumor model mimics stromal-breast cancer cells signaling. *Oncotarget*. doi: 10.18632/oncotarget.22922.
8. **Li, J.** and Zhong, P.S. (2017) A rate optimal procedure for recovering sparse differences between high-dimensional means under dependence. *The Annals of Statistics*. **45**, 557-590.
9. Zhong, P. S., Hu, T. and **Li, J.** (2015) Tests for coefficients in high dimensional additive hazard models. *Scandinavian Journal of Statistics*. **42**, 649-664.
10. **Li, J.** and Chen, S.X. (2012) Two sample tests for high dimensional covariance matrices. *The Annals of Statistics*. **40**, 908-940.
11. Vary, J., Honkanen, H., **Li, J.**, Maris, P., Shirokov, A., Brodsky, S., Harindranath, A., Teramond, G., Ng, E., Yang, C. and Sosonkina, M. (2010) Ab-initio Hamiltonian approach to light nuclei and to quantum field theory. *Pramana*. **75**, 39-49.
12. Vary, J., Honkanen, H., **Li, J.**, Maris, P., Brodsky, S., Harindranath, A., Teramond, G., Sternberg, P., Ng, E. and Yang, C. (2010) Hamiltonian light-front field theory within an AdS/QCD basis. *Nuclear Physics B Proceedings Supplements* **199**, 64-73.
13. Vary, J., Honkanen, H., **Li, J.**, Maris, P., Brodsky, S., Harindranath, A., Teramond, G., Sternberg, P., Ng, E. and Yang, C. (2010) Hamiltonian light-front field theory in a basis function approach. *Physical Review C*. **81**, 035205.
14. Vary, J., Honkanen, H., **Li, J.**, Maris, P., Brodsky, S., Sternberg, P., Ng, E. and Yang, C. (2008) Recent progress in Hamiltonian light-front QCD. *Proceedings of Science*. **040**, 1-7.
15. Antipin, O., Burikham, P. and **Li, J.** (2007) Effective quark antiquark potential in the quark gluon plasma from gravity dual models. *Journal of High Energy Physics* **0706**, 046.

16. Burikham, P. and **Li, J.** (2007) Aspects of the Screening Length and Drag Force in Two Alternative Gravity Duals of the Quark-gluon Plasma. *Journal of High Energy Physics* **0703**, 067.
17. Guo, X.F. and **Li, J.** (2007) Coherent multiple scattering effect in DIS. *Nuclear Physics A.* **783**, 587-590.

HONORS AND AWARDS

- Brain Health Research Institute Pilot Funding Award, Kent State University, 2018.
- Farris Family Innovation Awards, Kent State University, 2016- 2019.
- Summer Research and Creative Activity Award, Kent State University, 2014.

GRANTS

- NIH R15GM139115: Automating biomedical data analysis. Role: multi-PD/PI. Duration: 2020-2023. Awarded \$ 446,115.
- NSF DMS-1916239: offline and online change-point analysis for large-scale time series data. Role: PI. Duration: 2019-2022. Awarded \$100,000.
- Farris Family Innovation Fund (Kent State University): Pursuit for more robust, powerful and applicable tests for high-dimensional data. Duration: 2016-2019. Awarded \$24,000.

INVITED TALKS

- The 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), December 19, 2021.
- Department of Mathematics and Statistics, Wright State university, October 29, 2021.
- Department of Mathematics and Statistics, Mississippi State University, October 19, 2021.
- The 2019 ICSA China Conference, Tianjin, China, July 1-4, 2019.
- 3rd International Conference on Econometrics and Statistics (EcoSta 2019), Taichung, Taiwan, June 25-27, 2019.
- 2019 Annual Meeting in University of Calgary, Calgary, Alberta, May 26-19, 2019
- 2nd International Conference on Econometrics and Statistics (EcoSta 2018), Hong Kong, June 19-21, 2018.
- ICSA Applied Statistics Symposium 2017, Chicago, illinois, June 25-28, 2017.
- 1st International Conference on Econometrics and Statistics (EcoSta 2017), The Hong Kong University of Science and Technology, Hong Kong, June 15-17, 2017.
- The 10th ICSA International Conference, Shanghai, China, December 19-22, 2016.
- Computational and Methodological Statistics (CMStatistics) 2016, University of Seville, Spain, December 9-11, 2016.
- Department of Statistics, Univeristy of South Carolina, September 8, 2016.
- ICSA Applied Statistics Symposium 2016, Atlanta, Georgia, June 12-15, 2016.
- WNAR 2015, Boise, Idaho, June 14, 2015.
- The 3rd Institute of Mathematical Statistics Asia Pacific Rim Meeting, Taipei, June 30-July 3, 2014.

- Center for Statistical Research, Computing and Collaboration, Case Western Reserve University, May 19, 2014.
- Department of Statistics, The University of Akron, Feb 25, 2014.
- Department of Statistics, The Chinese University of Hong Kong, Feb 22, 2013.
- Department of Mathematical Sciences, Kent State University, Jan 29, 2013.
- Department of Management Sciences, City University of Hong Kong, Jan 14, 2013.

TEACHING EXPERIENCE

- Math 11010, Algebra for Calculus (online course), Summer 2016, 2017, 2018.
- Math 10041, Introductory Statistics (online course), Summer 2019.
- Math 12022, Probability and Statistics for Life Sciences, Spring 2016; Fall 2019.
- Math 30011, Basic Probability and Statistics, Summer 2015, 2016, 2017, 2018; Fall 2016.
- Math 70095, Multivariate Statistical Methods II, Spring 2015, 2017.
- Math 40011/50011, Introduction to Probability and Applications, Fall 2017, 2019; Spring 2020.
- Math 40012/50012, Introduction to Statistical Concepts, Spring 2015, 2018; Spring 2020.
- Math 70095, Multivariate Statistical Methods I, Fall 2014, 2016.
- Math 60062/70062, Mathematical Statistics II, Spring 2014, 2016.
- Math 60061/70061, Mathematical Statistics I, Fall 2013, 2015.
- Stat 226, Introduction to Business Statistics I, Spring and Fall 2012.
- Stat 326 Lab, Introduction to Business Statistics II, Fall 2011.

Ph.D. M.S. AND UNDERGRADUATE STUDENTS

- Ph.D. Students Supervised: Lingjun Li, Kent State University, 2020.
- Master Students Supervised:
Yanjun Zhu, Kent State University, 2018.
Yousef Alharbi, Kent State University, 2017.
Dmitry Anokhin, Kent State University, 2016.
- Undergraduate Students Supervised:
Olivia Beck, Colorado State University, REU 2019.
Isabelle Hauge, University of Massachusetts Amherst, REU 2019.
Molly Noel, Ithaca College, REU 2019.
Natasha Stewart, University of Texas Austin, REU 2018.
Jeffrey Okamoto, Bowdoin College, REU 2018.
Naya Rhodes, Kent State University, Independent Study, 2015-2016.

DEPARTMENT SERVICE

- Math FAC At-Large Member 2015- 2017.
- Graduate Committee 2014- 2019.
- Undergraduate Committee 2019- present.
- Statistics Committee 2013- present.

- Library Coordinator 2014- 2019.

CONSULTING AND PROFESSIONAL EXPERIENCES

- Contractor of U.S. Census Bureau, Washington D.C., 2010-2011.