Yang Li | Curriculum Vitae

Department of Mathematical Sciences, Florida Atlantic University

Boca Raton, FL 33431

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ACADEMIC EMPLOYMENT

Florida Atlantic University Boca Raton, FL
Assistant Professor, Department of Mathematical Sciences *December 2020 – now*

University of Minnesota Duluth Duluth, MN
Associate Professor, Department of Mathematics and Statistics *July 2019 – December 2020*

University of Minnesota Duluth Duluth, MN
Assistant Professor, Department of Mathematics and Statistics *Aug 2013 – June 2019*

EDUCATION

PhD in statistics, Iowa State University Ames, IA
Advisor: Zhengyuan Zhu, Department of Statistics *2013*

PhD in physics, University of Minnesota Minneapolis, MN
Advisor: Joseph I. Kapusta, School of Physics and Astronomy *2006*

BS in physics, University of Science and Technology of China Hefei, China
School of the Gifted Young *2001*

AWARDS

First Place Award, 10th Anniversary Best Paper Awards in *Forests* *2019*

International Travel Award, University of Minnesota *2017*

Student Travel Award, American Statistical Association *2011*

Holly and Beth Fryer Award, Department of Statistics, Iowa State University *2010*

FUNDED GRANTS

University of Minnesota, Grant-in-Aid $32,997
Spatial point processes on networks *2016 – 2018*

University of Minnesota Duluth, EVCAA Research and Scholarship $1,500
Spatial point patterns on networks *2015 – 2016*

University of Minnesota Duluth, SCSE Chancellor's Small Grants $1,500
Spatial analysis of network point processes *2014 – 2015*

PUBLICATIONS

(*: my graduate student)

PEER-REVIEWED...

1. L. Ding*, **Y. Li**, H. Wang, and K. Xu, "Measurement and analysis of cloud user interest: a glance from BitTorrent", *IEEE INFOCOM 2020*, (2020).

2. **Y. Li** and Z. Zhu, "Spatio-temporal modeling of global ozone data using convolution", *Japanese Journal of Statistics and Data Science*, 3, 153 (2020).

3. E. R. Keyel, G. J. Niemi, M. A. Etterson, D. C. Evers, C. DeSorbo, J. C. Hoffman, J. W. Nichols, **Y. Li**, and F. Nicoletti, "Feather mercury increases with feeding at higher trophic levels in two species of migrant raptors, Merlin (Falco columbarius) and Sharp-shinned Hawk (Accipiter striatus)", *The Condor: Ornithological Applications*, duz069 (2020).

4. **Y. Li** and Y. Qi, "Asymptotic distribution of modularity in networks", *Metrika*, 83, 467 (2020).

5. P.-J. Shi, M. Li, **Y. Li**, J. Liu, T. Xie, and H. Shi, "Taylor's power law in the Wenchuan earthquake sequence with fluctuation scaling", *Natural Hazards and Earth System Sciences*, 19, 1119 (2019).

6. P.-J. Shi, D. A. Ratkowsky, **Y. Li**, L. Zhang, S. Lin, and J. Gielis, "General leaf-area geometric formula exists for plants: evidence from the simplified Gielis equation", *Forests*, 9, 714 (2018).

7. P.-J. Shi, X. Zheng, D. A. Ratkowsky, **Y. Li**, P. Wang, and L. Cheng, "A simple method for measuring the bilateral symmetry of leaves", *Symmetry* 10, 118 (2018).

8. W. A. Fuller, J. C. Legg, and **Y. Li**, "Bootstrap variance estimation for rejective sampling", *Journal of the American Statistical Association* 112, 1562 (2017).

9. **Y. Li** and H. Papei*, "Stochastic local community detection in networks", *Proceedings of the 6th International Conference on Complex Networks and Their Applications*, Complex Networks, 341 (2017).

10. P.-J. Shi, D. A. Ratkowsky, N. Wang, **Y. Li**, L. Zhao, G. Reddy, and B.-L. Li, "Comparison of five methods for parameter estimation under Taylor's power law", *Ecological Complexity* 32, 121 (2017).

11. E. Heald, T. R. Hrabik, **Y. Li**, Z. J. Lawson, S. R. Carpenter, and M. J. Vander Zanden, "Examination of variability in spatial autocorrelation in fish and zooplankton populations during a lake mixing experiment", *Aquatic Sciences* 79, 543 (2017).

12. J. I. Kapusta, G. Chen, R. J. Fries, and **Y. Li**, "Early time dynamics of gluon fields in high energy nuclear collisions", *Nuclear Physics A* 956, 553 (2016).

13. **Y. Li** and Z. Zhu, "Modeling nonstationary covariance function with convolution on sphere", *Computational Statistics and Data Analysis* 104, 233 (2016).

14. G. Chen, R. J. Fries, J. I. Kapusta, and **Y. Li**, "Early-time dynamics of gluon fields in high energy nuclear collisions", *Physical Review C* 92, 064912 (2015).

15. J. Du, C. Ma, and **Y. Li**, "Isotropic variogram matrix functions on spheres", *Mathematical Geosciences* 45, 341 (2013).

16. **Y. Li** and K. Tuchin, "Probing the low-x structure of nuclear matter with diffractive hadron production in pA collisions", *Physical Review C* 78, 024905 (2008).

17. **Y. Li**, "Baryon enhancement in high-density QCD and relativistic heavy ion collisions", *Journal of Physics G* 35, 104051 (2008).

18. **Y. Li** and K. Tuchin, "Spectrum of diffractively produced gluons in onium-nucleus collisions", *Nuclear Physics A* 807, 190 (2008).

19. **Y. Li** and K. Tuchin, "Gluon multiplicity in coherent diffraction of onium on a heavy nucleus", *Physical Review D* 77, 114012 (2008).

20. **Y. Li** and K. Tuchin, "Gluon recombination in high parton density QCD: inclusive pion production", *Physical Review D* 75, 074022 (2007).

21. R. J. Fries, J. I. Kapusta, and **Y. Li**, "From color fields to quark gluon plasma", *Nuclear Physics A* 774, 861 (2006).

22. J. I. Kapusta and **Y. Li**, "Rescattering effects on intensity interferometry", *Physical Review C* 72, 064902 (2005).

23. **Y. Li** and J. I. Kapusta, "Nonrelativistic rescattering effects on two-particle correlation", *Journal of Physics G* 31, S331 (2005).

24. J. I. Kapusta and **Y. Li**, "HBT interferometry with rescattering in the medium", *Acta Physica Hungarica A* 24, 125 (2005).

25. J. I. Kapusta and **Y. Li**, "Rescattering effects on HBT interferometry", *Journal of Physics G* 30, S1069 (2004).

OTHERS..

1. E. J. Zlonis, A. Grinde, E. Condon, H. Panci, **Y. Li**, R. R. Regal, and G. J. Niemi, "Summary of breeding bird trends in the Chippewa and Superior national forests of Minnesota (1995-2014)", *NRRI technical report NRRI/TR-2014/44*, University of Minnesota Duluth (2014).

2. **Y. Li**, "Non-parametric and semi-parametric estimation of spatial covariance function", *PhD thesis*, Iowa State University (2013).

3. J. M. Larson, A. S. Tyler, **Y. Li**, and Z. Zhu, "Antecedents to biomass procurement: the essentials for producer participation survey of Iowa farmers methodology report", *SBRS technical report*, Survey & Behavioral Research Services, Iowa State University (2011).

4. **Y. Li**, "Rescattering effects on intensity interferometry and initial conditions in relativistic heavy ion collisions", *PhD thesis*, University of Minnesota (2006).

5. R. J. Fries, J. I. Kapusta, and **Y. Li**, "Near-fields and initial energy density in the color glass condensate model", *arXiv nucl-th/0604054* (2006).

SOFTWARE

IPEC: Root Mean Square Curvature Calculation
R package for intrinsic and parameter-effects curvatures of a nonlinear regression model

TEACHING EXPERIENCE

FLORIDA ATLANTIC UNIVERSITY

- STA 4032 – Probability and Statistics for Engineers

UNIVERSITY OF MINNESOTA DULUTH

- STAT 8611 – Linear Models
- STAT 5572 – Statistical Inference
- STAT 5571 – Probability
- STAT 5511 – Regression Analysis
- STAT 5411 – Analysis of Variance
- STAT 4101 – Actuarial Probability
- STAT 4040 – Introduction to Survey Sampling
- STAT 3611 – Introduction to Probability and Statistics
- STAT 3411 – Engineering Statistics
- MATH 3280 – Differential Equations and Linear Algebra
- MATH 1250 – Precalculus Analysis

STUDENT ADVISING

MASTER OF SCIENCE IN APPLIED AND COMPUTATIONAL MATHEMATICS (UMD)

- Levi D. Pederson (May 2015)
- Xinyue Chang (May 2016)
- Melissa Sandahl (co-advise with K. L. James) (July 2016)
- Mudit Jain (co-advise with V. Vanchurin) (June 2017)
- Yang Wang (June 2017)
- Lei Ding (co-advise with H. Wang) (August 2017)
- Hadi Papei (August 2017)
- Zhenduo Wang (co-advise with T. Pedersen) (May 2018)
- Jingxia Liu (June 2018)
- McCoy Becker (July 2018)
- Richa Rawat (May 2019)
- Tianyi Zhang (June 2020)
- Jieming Liu (December 2020)
- Bahoua Carmel Mobio (December 2020)
- Xinyu Sui (current)

UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM (UMD)

- Lusha Li (Spring 2016)
- Xin Zhi (Fall 2016)

- Weizhi Jing   (Spring 2019)
- Jingyi Yang   (Spring 2020)

PRESENTATION

1. Contributed poster presentation, IEEE INFOCOM 2020, "*Measurement and Analysis of Coud User Interest: a Glance from BitTorrent*", July 7, 2020.

2. Invited department seminar, Department of Mathematical Sciences, Florida Atlantic University, Boca Raton, FL, "*Modeling Spatial and Spatio-temporal Process on the Sphere with Convolution*", February 20, 2020.

3. Contributed talk, NetSci 2019, Burlington, Vermont, "*Asymptotic Distribution of Modularity in Networks*", May 29, 2019.

4. Invited department seminar, Department of Mathematics and Statistics, Connecticut College, New London, CT, "*Stochastic Local Community Detection in Networks*", February 5, 2018.

5. Contributed talk, International School and Conference on Network Science, NetSciX 2018, Hangzhou, China, "*Stochastic Local Community Detection in Networks*", January 8, 2018.

6. Contributed poster presentation, the 6th International Conference on Complex Networks and Their Applications, Lyon, France, "*Stochastic Local Community Detection in Networks*", November 30, 2017.

7. Invited department seminar, Department of Mathematics and Statistics, California State University Northridge, Northridge, CA, "*Community Structure and Detection in Networks*", November 20, 2017.

8. Department graduate colloquium, Department of Mathematics and Statistics, University of Minnesota Duluth, Duluth, MN, "*Stochastic Local Community Detection in Networks*", November 2, 2017.

9. Contributed talk, Spatial Statistics 2017, Lancaster University, Lancaster, United Kingdom, "*Spatio-Temporal Modeling on Spheres*", July 6, 2017.

10. Department graduate colloquium, Department of Mathematics and Statistics, University of Minnesota Duluth, Duluth, MN, "*Introduction to Geostatistics*", December 8, 2016.

11. Invited department seminar, Department of Statistics, University of Missouri-Columbia, Columbia, MO, "*Use Convolution to Model Nonstationary Spatial Random Field on Sphere*", March 9, 2016.

12. Contributed talk, 2015 IMS-China International Conference on Statistics and Probability, Yunnan University, Kunming, Yunnan, China, "*Semiparametric Estimation of Spectral Density and Variogram with Irregular Observations*", July 2, 2015.

13. Seminar, Department of Mechanical and Industrial Engineering, University of Minnesota Duluth, Duluth, MN, "*From Classical Statistics to Spatial Statistics*", April 29, 2015.

14. Duluth R Group seminar, Duluth, MN, "*Some R Functions in Spatial Statistics*", November 12, 2014.

15. Invited talk, International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC 2014), University of North Carolina Greensboro, Greensboro, NC, "*Modeling Nonstationary Covariance Function on Spheres with Convolution*", October 10, 2014.

16. Invited department seminar, School of Management, China University of Mining and Technology, Xuzhou, Jiangsu, China, "*Spatial Statistics and Its Applications*", May 28, 2014.

17. Contributed talk, the 6th International Statistics Forum at Renmin University of China, Beijing, China, "*Modeling Nonstationary Covariance Function on Spheres with Convolution*", May 25, 2014.

18. Contributed talk, Next Generation Climate Data Products Workshop, the National Center for Atmospheric Research, Boulder, CO, "*Modeling Nonstationary Covariance Function on Spheres with Convolution*", July 16, 2013.

19. Poster presentation, the 7th International Total Survey Error Workshop, Ames, IA, "*Processing Error in Erosion Estimations Based on a Longitudinal Survey*", June 4, 2013.

20. Survey working group seminar, Department of Statistics, Iowa State University, Ames, IA, "*Review of Soil Erosion Analysis in NRI*", April 26, 2013.

21. Invited department seminar, Department of Mathematics and Statistics, University of Minnesota Duluth, Duluth, MN, "*Modeling Covariance Functions on Spheres*", February 26, 2013.

22. Invited department seminar, Department of Statistics, Western Michigan University, Kalamazoo, MI, "*Nonparametric Modeling of Covariance Functions on Spheres*", December 7, 2012.

23. Statistics Department talk, AT&T Research Lab, Florham Park, NJ, "*Spatial Anomalous Events from MTS and Correlation with Cellular Network Data*", July 13, 2012.

24. Survey working group seminar, Department of Statistics, Iowa State University, Ames, IA, "*Survey of Iowa Farmers on Use of Cellulosic Biomass as a Bio-fuel*", October 3, 2011.

25. Contributed talk, JSM 2011, Miami Beach, FL, "*Calibration of Soil Erosion Estimates under New Protocols*", August 3, 2011.

26. Presentation for STAT 606 (Advanced Spatial Statistics), Department of Statistics, Iowa State University, Ames, IA, "*Nonparametric Covariogram Estimation for Spatial Data*", December 14, 2010.

27. Survey working group seminar, Department of Statistics, Iowa State University, Ames, IA, "*USLE and RUSLE2 Soil Loss Analysis in National Resources Inventory*", October 11, 2010.

28. Presentation for STAT 651 (Advanced Time Series), Department of Statistics, Iowa State University, Ames, IA, "*Extended Tapered Block Bootstrap*", May 4, 2010.

29. Presentation for STAT 621 (Advanced Survey Sampling), Department of Statistics, Iowa State University, Ames, IA, "*Closed Capture-Recapture Sampling and Models*", December 9, 2009.

30. Contributed talk, the 20th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions (Quark Matter 2008), Jaipur, India, "*Baryon Enhancement from Quasi-Classical Fields in Nuclear Collisions*", February 5, 2008.

31. Invited seminar, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN, "*Gluon Recombination at High Parton Density*", November 5, 2007.

32. Contributed talk, APS DNP meeting 2007, Newport News, VA, "*Gluon Recombination at High Parton Density*", October 11, 2007.

33. Contributed talk, the 20th Midwest Nuclear Theory Get-Together, Argonne National Laboratory, Argonne, IL, "*Gluon Recombination at High Parton Density: Hadron Production at RHIC*", October 6, 2007.

34. Invited seminar, Physics Department and RIKEN, Brookhaven National Laboratory, Upton, NY, "*Near-Field Properties in Relativistic Heavy Ion Collisions*", January 16, 2007.

35. Contributed talk, APS April meeting 2006, Dallas, TX, "*Near-Field Properties in Relativistic Heavy Ion Collisions*", April 23, 2006.
36. Invited seminar, Department of Physics and Astronomy, Iowa State University, Ames, IA, "*Rescattering Effects on HBT Interferometry*", February 17, 2006.
37. Group seminar, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN, "*Rescattering Effects on Intensity Interferometry in Relativistic Heavy-Ion Collisions*", October 27, 2005.
38. Contributed talk, Hot Quarks 2004, Workshop for young scientists on the physics of ultrarelativistic nucleus-nucleus collisions, Taos Valley, NM, "*Rescattering Effects on HBT Interferometry*", July 22, 2004.

SERVICE

EDITORIAL SERVICE
- Academic Editor for PLOS One   (2019 – now)

REFEREE SERVICE
- Journal of Nonparametric Statistics
- Computational Statistics and Data Analysis
- Journal of Applied Statistics
- Journal of Statistical Computation and Simulation
- Environmetrics
- Environmental and Ecological Statistics
- Communications in Statistics - Theory and Methods
- Communications in Statistics - Simulation and Computation
- Statistics in Medicine
- RevStat
- Physical Review Letters
- Physical Review C
- CRC Press book proposals

UNIVERSITY, COLLEGE, AND DEPARTMENT SERVICE (UMD)
- Member of the tenure-track faculty search committee   (2019 – 2020)
- Member of the department new hire committee   (2019)
- Co-chair of statistics tenure-track faculty search committee   (2018 – 2019)
- Member of graduate program committee   (2017 – 2020)
- Member of statistics tenure-track faculty search committee   (2017 – 2018)
- Member of statistics tenure-track faculty search committee   (2016 – 2017)
- Member of undergraduate program committee   (2016)
- SCSE college UROP reviewer   (Spring 2014, Fall 2014, Fall 2016)
- Graduate committee member for 32 graduate students   (2014 – 2020)

MEMBERSHIP

- American Statistical Association
- Institute of Mathematical Statistics
- Network Science Society