

Lixia Wang

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EDUCATION

Ph.D. in Pure Mathematics with a specialization in the History of Mathematics
Chinese Academy of Sciences, Beijing, China 2006
Dissertation - The Prehistory of the Korteweg-de Vries Equation and the Solitary Wave

M.S. in Statistical Computing (Data Mining Track)
University of Central Florida, Orlando, FL 2019

Graduate Certificate in SAS Data Mining
University of Central Florida, Orlando, FL 2018

M.S. in Probability Theory and Mathematical Statistics
Fudan University, Shanghai, China 1993
Thesis - The Class-K Estimators for Linear Regression Parameters for Bilateral Truncated Data

B.S. in Computational Mathematics
Wuhan University, Wuhan, China 1986
Thesis - Some Applications of the Multi-grid Difference Algorithm

RESEARCH INTERESTS

- Applications of Statistics in Public Health and Medicine
- Mathematical Epidemiology
- Statistics Education
- History of Mathematics and Statistics

EMPLOYMENT

Clinical Assistant Professor Jul. 2023 - present
Department of Biostatistics
College of Public Health & Health Professions and College of Medicine
University of Florida, Gainesville, FL

Visiting Assistant Professor Aug. 2021 - Jul. 2023
Department of Mathematics and Computer Science
Rollins College, Winter Park, FL

Visiting Instructor Aug. 2019 - Aug. 2021
Department of Statistics and Data Science
University of Central Florida, Orlando, FL

Adjunct Lecturer Dec. 2018 - Aug. 2019
Department of Mathematics
University of Central Florida, Orlando, FL

Adjunct Professor Department of Mathematics Valencia College, Orlando, FL	Jan. 2019 - Aug. 2019
Visiting Scholar Department of Mathematics University of Central Florida, Orlando, FL	Sept. 2012 - May. 2014
Associate Professor Department of Mathematics Beijing University of Posts and Telecommunications, Beijing, China	Jan. 2000 - Dec. 2013
Associate Professor Department of Mathematics Hubei University of Automotive Technology, Shiyan, China	Sept. 1999 - Jan. 2000
Assistant Professor Department of Mathematics Hubei University of Automotive Technology, Shiyan, China	Jul. 1993 - Sept. 1999
Instructor Department of Mathematics Hubei University of Automotive Technology, Shiyan, China	Jul. 1986 - Aug. 1990

COURSES TAUGHT

- Mathematical Statistics
- Probability and Statistics
- Statistical Reasoning
- Principles of Statistics
- Statistical Methods I, II, III
- Statistical Theory
- Probability Theory and Mathematical Statistics
- Probability Theory and Stochastic Processes
- Probability Theory
- Mathematical Statistics and Stochastic Processes
- Calculus and Analytical Geometry I, II, III
- Real Analysis
- Intermediate Algebra
- College Algebra
- Linear Algebra
- Differential Equations
- History of Mathematics
- Culture of Mathematics
- Selected Lectures on Eastern and Western Culture of Mathematics

COURSES DEVELOPED

- History of Mathematics (Mathematics majors)
- Culture of Mathematics (STEM majors)
- Selected Lectures on Eastern and Western Culture of Mathematics (Non STEM majors)

PEDAGOGICAL EXPLORATIONS

- Sponsored students in the Fall Data Challenge 2022 in order to motivate their interest in statistics as well as the chance to apply statistical skills to a real-world issue
- Used different technologies to promote variety, inclusion and equity in the classroom as well as improve student outcomes
- Added a statistical ethics module into my statistical reasoning and probability and statistics classes.
- Created outlines of my lecture notes to help students take notes in class, promote inclusion and mitigate distraction in classroom
- Created various term projects using real world data to help students understand, appreciate, and connect the topics, and apply the knowledge learned to solve real world problems
- Used mathematical history to organize the content as well as to motivate students and help them to understand the material
- Used the National Association for Colleges and Employers (NACE) Competencies to help students be better prepared and more competitive after graduation
- Worked directly with various on campus academic support resources (such as the Tutoring and Writing Center at Rollins, SARC (Student Academic Resource Center) at UCF, and the Math Support Center at Valencia)
- Developed a series of the history and culture of mathematics courses at BUPT to show the development of mathematical thoughts and methods, the connection between mathematics and other fields, and to help students understand and appreciate the beauty, value, and power of mathematics

PEDAGOGICAL LEADERSHIP

Organizing and Sponsoring Teams for Data Challenge (Rollins College) Oct.-Nov. 2022

- Organized and sponsored students at Rollins to participate in the 2022 Fall Data Challenge: After the Bell

Mentoring and Supervising Teaching Assistants/Associates (UCF) Dec. 2019 - Dec. 2020

- Coordinate pre/post-test assessments, class policies, syllabi, and exams for
 - Statistical Principles (STA 2014)
 - Statistical Methods III (STA 4164)
 - Sampling Theory (STA 4222)
 - Computer Processing of Statistical Data (STA 4102)
- Mentor, supervise, help train and offer professional development for graduate teaching associates (GTAs) who teach
 - Statistical Principles (STA 2014)
 - Statistical Methods III (STA 4164)
 - Sampling Theory (STA 4222)
 - Computer Processing of Statistical Data (STA 4102)
- Mentor, supervise and help train graduate teaching associates (GTAs) who assist
 - Statistical Principles (STA 2014)
 - Statistical Methods I (STA 2023)
 - Statistical Methods II (STA 4163)

- Theoretical Statistics I (STA 4321)
- College Algebra (MAC 1105)

Mentoring and Supervising Teaching Assistants (BUPT) Jan. 2000 - Sep. 2012

- Mentor, supervise and help train graduate teaching associates (GTAs) who assist
 - Calculus Series
 - Linear Algebra
 - Probability Theory and Mathematical Statistics
 - Probability Theory and Stochastic Processes

Advising (UCF)

- Co-advising Exchange Students from University of Central Eastern China in the Mathematics Department at UCF (Fall 2019 - Spring 2020)

Supervising Undergraduate Thesis (BUPT) Jul. 2005 - Sep. 2012

- Design and Supervise mathematics majored senior undergraduate students' thesis each year

Course Coordinator or Co-Coordinator

- Statistical Principles (STA 2014) (UCF) Jan.2020-May 2020
- Probability Theory and Mathematical Statistics (BUPT) Sept.2006-Sept. 2012
- Probability Theory and Stochastic Processes (BUPT) Sept.2006-Sept. 2012

Course Developed (BUPT) Sept.2005-Sept. 2010

- The History of Mathematics course (senior, mathematics majors)
- The Culture of Mathematics (sophomore to senior, STEM majors)
- Topics on Eastern and Western Culture of Mathematics (freshman to senior, liberal arts)

CURRENT RESEARCH and RECENT SUBMISSIONS

- **Lixia Wang**, Donald Porchia, Exploring the probability of disease extinction as a function of public health policy, poster session, the 14th International Conference on Health Policy Statistics, Jen 9-11, 2023, Scottsdale, AZ
- The impact of multiple factors on diversity, inclusion, equity, belonging, and quality outcome of statistics education (**in progress**)
- Practices on developing the awareness of data ethics in statistical literacy education (**in progress**)

PUBLICATIONS RELATED TO STATISTICS

Papers

- **Lixia Wang**, and Jing Yang, Four Steps of the Accessing Process to Randomness (in Chinese), Journal of Dialectics of Nature, vol. 28(3), 62-66, 2006
- Jing Yang, and **Lixia Wang**, Einstein and the Brownian Motion (in Chinese), Journal of Northwestern Polytechnic University, vol. 36(1), 169-172, 2006
- Yonggang Ru, **Lixia Wang**, Some New Formula to Calculate Statistics in ANOVA (in Chinese), Journal of Hubei University of Automobile Technology, 74-78, 1998 (2)
- **Lixia Wang**, A Relationship Between the Turnbull Estimator for Left-Truncated Data and the Kaplan-Meier Estimator for the Corresponding Right-Truncated Data (in Chinese), Journal of Hubei University of Automobile Technology, June, 1997

- **Lixia Wang**, A Relationship Between the Turnbull Estimator for Left-Truncated Data and the Kaplan-Meier Estimator for the Corresponding Right-Truncated Data (in Chinese), Journal of Hubei University of Automobile Technology, June, 1997

Books

- **Lixia Wang**, the Chinese translation of Foundations of the Theory of Probability (By A. N. Kolmogorov, J. Springer, Berlin, 1933), Wuhan University Press Co. Ltd, Wuhan, China (Submitted, under copy right negotiation)
- **Lixia Wang**, Probability Theory and Stochastic Processes: Theory, History and Applications (in Chinese), Tsinghua University Press, Beijing, China, 2012
- **Lixia Wang**, Probability Theory and Mathematical Statistics: Theory, History and Applications (in Chinese), Dalian University of Technology Press Co. Ltd, Dalian, China, 2010
- Hengfan Shen, Mingci Wang, **Lixia Wang**, and Hongjian Chen, Xiulan Ma, Probability Theory and Mathematical Statistics (in Chinese), Higher Education Press, Beijing, China, 2007
- Xibao Hu, Hongxiang Sun, and **Lixia Wang**, Probability Theory, Mathematical Statistics and stochastic (in Chinese), Beijing University of Posts and Telecommunications Press, Beijing, China, 2004
- Xiangwei Min, Yucui Guo, Jiao Mo, Baosheng Liu, and **Lixia Wang**, Instructions and Examples in Advanced Mathematics (in Chinese), Beijing University of Posts and Telecommunications Press, Beijing, China, 2003
- Xibao Hu, and **Lixia Wang**, Probability Theory and Mathematical Statistics (in Chinese), Beijing University of Posts and Telecommunications Press, 2002

Book Chapters

- **Lixia Wang**, the Chinese translation of Stochastic Calculus – Mathematics of Chance, the Chinese Translation of Teubner-Taschenbuch der Mathematik (edited by Li Wenlin), 974-1049, Science Press, Beijing, China, 2012
- Chapters 4 and 5 in The Probability Theory and Mathematical Statistics (by Mingci Wang and Hengfan Shen, in Chinese), Higher Education Press, Beijing, China, 1997

OTHER PUBLICATIONS

Papers

- **Fall 2019 STEM Women Faculty Mentoring and Networking Community**, Is Your Mentor Really a Mentor? Faculty Focus, 5-7, Vol. 19, No. 1, 2020
- **Lixia Wang**, Wenlin Li, Cryptologist Xiaoyun Wang and Her Team (in Chinese), Mathematics & Humanities, Higher Educational Press and International Press, Beijing, China, vol. 4, 3-14, 2011
- **Lixia Wang**, Poet's Daughter and the Computer Language: Story of Ada Baron (in Chinese), Mathematics & Humanities, Higher Educational Press and International Press, Beijing, China, vol. 4, 46-56, 2011
- **Lixia Wang**, Multiple Ways to Carry out the education of Mathematical Culture (in Chinese), Development and Practice about Mathematical Culture (edited by Pei Gu), Higher Education Press, 118-124, 2009
- **Lixia Wang**, General Education of Mathematics (in Chinese), Tongshizaixian [Taiwan], 63-64, 2009
- **Lixia Wang**, General Education Mathematics at the University Level: Courses and Pedagogical Approaches, General Education and the Development of Global Citizenship in Hong Kong, Taiwan, and Mainland China: Not Merely Icing on the Cake (Routledge Research in Asian Education), edited by Xing Jun, etc., Routledge, 2012, 11.

- **Lixia Wang**, Some Remarks on the History of Solitary Waves (in English), *Ganita Bharati*, vol. 30, 123-130, 2008
- **Lixia Wang**, The Approximation Theory of Solitary Wave and the Cambridge Analytical School (in Chinese), *Journal of Dialectics of Nature*, vol. 29(3), 59-62, 2007
- **Lixia Wang**, George Green's Contribution to the Mathematical Theory of Solitary Wave (in Chinese), *Journal of Mathematical Research and Exposition*, vol. 27(4), 971-974, 2007
- **Lixia Wang**, J. Mcwan's Research about Solitary Wave and the influence to KdV(1985) (in Chinese), *Journal OF Shaanxi Normal University*, vol. 35(2), 121-124, 2007
- **Lixia Wang**, S.Earnshaw's Contribution to the Study of Solitary Wave (in Chinese), *Mathematics in Practice and Theory*, vol 37(7), 155-158, 2007
- **Lixia Wang**, On Solitary waves and the Analytical School of Cambridge(in English), *Book of Abstracts, ICAM 2007 (India)*, 2007
- **Lixia Wang**, G. Green and Water Wave (in Chinese), *Journal of Northwestern Polytechnic University*, vol. 36(3), 512-516, 2006
- **Lixia Wang**, The Second Birth of the KdV Equation (in Chinese), *Mathematics in Practice and Theory*, vol. 36(8), 345-349, 2006
- **Lixia Wang**, the Chinese Translation of Carl Friedrich Guass Prize (by IMU), *Translations of Mathematics*, vol. 26(2), 2006
- **Lixia Wang**, Mathematics Teaching with the Aid of Mathematical History (in Chinese), *Journal of Northwestern Polytechnic University*, vol. 35, 233-236, 2005
- **Lixia Wang**, the Chinese translation of Hermann Weyl, the Reluctant Revolutionary (by D. E. Rowe), *Translations of Mathematics*, vol. 23(1), 67-77, 2004

Books or Book Chapters

- **Lixia Wang**, the Chinese translation of *A Concise History of Mathematics* (By Dirk. J. Struik, Dover Publications, INC., New York, 1948), *Shanghai Science & Technical Publishers* (Submitted, under copy right negotiation)
- **Lixia Wang**, the Chinese translation of *The Great Mathematicians* (By H. W. Turnbull, New York University Press, January 1, 1961), *The World of Mathematifcs II*, Edited by Wenlin Li, Higher Education Press, Beijing, China, 2016
- Zhao Cheng, **Lixia Wang**, and Jing Yang, the Chinese translation of *The Role of Mathematics in the Science and in Society* (Selected Works by J. von Neumann), *Dalian University of Technology Press Co. Ltd*, Dalian, China, 2009
- Wenlin Li, **Lixia Wang**, the Chinese translation of the Bilingual Edition of *A History of Mathematics: An Introduction* (Second Edition) (by J. V. Katz), *Higher Education Press*, Beijing, China, 2008

GRANTS

- Developing history of mathematics course for the mathematics major programs (2004-2006), grant was from BUPT, Served as PI
- Developing mathematical culture course for STEM major programs (2006-2008) , grant was from BUPT, Served as PI
- Developing mathematical culture course for liberal arts programs (2007-2009) , grant was from BUPT, Served as PI
- Blending the history of mathematics into core mathematics courses (2008-2012), grant was from BUPT, Served as PI
- Curriculum reform for Calculus Series (2003-2005), grant was from the World Bank, team member

- Curriculum reform for Probability Theory and Stochastic Processes (2004-2008), grant was from the World Bank, team member
- An innovative textbook for Probability Theory and Mathematical Statistics (with less contents for Probability Theory and more for Statistics) (1996-1999), grant was from the Higher Education Press, team member

AWARDS

- Beijing Best course award for Probability Theory and Stochastic Processes (Team, 2008)
- BUPT Prize for the Construction of Mathematical Courses and the Creation of a Mathematical Resource Library (Team, 2008)
- BUPT Top course for Probability Theory and Stochastic Processes (Team, 2006)

INVITED TALKS

- **Lixia Wang**, Practice and Reflection about Undergraduate-level Education on Mathematical Culture (in Chinese), First National Forum on Mathematical Culture, Shijiazhuang, Hebei, October 2011
- **Lixia Wang**, System and Detail: On the Course of Mathematical Culture (in Chinese), The Second National Congress on Mathematical Culture, Tianjin, China, July 2011
- **Lixia Wang**, Report on Mathematical Culture Education at BUPT (in Chinese), The First National Congress on Mathematical Culture, Zhengzhou, China, July 2008
- **Lixia Wang**, On Solitary waves and the Analytical School of Cambridge (in English), ICAM 2007 (India), December 2007

PROFESSIONAL DEVELOPMENT

- Equity in PreK-12 STEM Education, September 29, 2022, Virtual
- Serina Haddad's Endeavor Talk: using technology to engage statistics students and mitigate potential stereotype threat, Sept. 16, 2022, International House, Rollins College
- ACS Inclusive Pedagogies Institute, July 31 - August 2, 2022, Centre College, Louisville, KY
- Book Discussion: James Lang's Distracted: Why Students Can't Focus and What You Can Do About It, May 19, June 14, July 14, International House, Rollins College
- Inclusive Pedagogy Workshop, May 17-18, 2022, Bush 201, Rollins College
- ECMP Training Workshop, April 25-26, May 5-6, 2022, Faculty Club, Rollins College
- Spring Faculty Book Group: Ron Daniels What Universities Owe Democracy, January 27th, February 9th, February 17th, March 1st, March 21st, 2022, The Barker House, Rollins College
- EOT (Essentials of Online Teaching) Course (Fall 2020)
- Virtual Florida Adaptive Learning Summit (Fall 2020)
- TLCz (Teaching with Lecture Capture, Zoom edition) Training (Summer 2020)
- NACE Competency Faculty Champion program with UCF Career Services (Summer 2020)
- UCF Graduate Fair (Fall 2019)
- UCF Women Faculty in STEM Mentoring and Networking Community (Fall 2019)
- UCF Non-Tenure Earning Community (Fall 2019)
- PAL5000 Certificate (Spring 2019)

PROFESSIONAL SKILLS

- Canvas/Webcourses
- Webex/Zoom
- MyLab Statistics
- ALEKS
- MyLab Math
- StatCrunch
- Excel
- SAS
- R

DEPARTMENT SERVICES

- Undergraduate Thesis Committee (Spring 2022, Math. Dept., Rollins College)
- B. S. Assessment Committee (Fall 2020, Stat. Dept., UCF)
- GEP Assessment Committee (Fall 2019 - Fall 2020, Stat. Dept., UCF)
- Undergraduate Curriculum Committee (Fall 2019- Spring 2020, Stat. Dept., UCF)
- Undergraduate Curriculum Committee (Fall 2000-Fall 2013, Math. Dept., BUPT)
- Undergraduate Thesis Committee (Fall 2005-Fall2013, Math. Dept., BUPT)
- Undergraduate Curriculum Committee (Fall 1993-Fall 1999, Math. Dept., HUAT)

PROFESSIONAL MEMBERSHIP AND SERVICES

- Member of American Statistical Association
- Member of Mathematical Association of America
- Council member and secretary, Chinese National Committee for Mathematical Terminology (2010 - 2018)
- Council member, Chinese Society of Probability and Statistics for Engineering (2012 - 2016)
- Council member, Chinese Society for the History of Science and Technology (2007 - 2011)
- Council member, Chinese Society of the History of Mathematics (2007 - 2011)