

RÉSUMÉ of ZONGWU CAI

March 5, 2019

ADDRESS:

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EDUCATION:

- 1995 Ph.D. in Statistics, University of California, Davis
- 1988 M.S. in Statistics, Zhejiang University, Hangzhou, China
- 1982 B.S. in Mathematics, China University of Geosciences, Wuhan, China

ACADEMIC and PROFESSIONAL POSITIONS:

- The Charles Oswald Professor of Econometrics & Professor of Economics, Department of Economics, University of Kansas, August, 2013 —
- Professor: Department of Mathematics & Statistics, University of North Carolina at Charlotte, July, 2005 - June, 2013
- Adjunct Professor, The Wang Yanan Institute for Studies in Economics, Xiamen University, China, 2006 -
- Adjunct Professor, Department of Economics, University of North Carolina at Charlotte, July, 2005 - June, 2013
- Associate Professor, Department of Mathematics & Statistics, University of North Carolina at Charlotte, 2002 - 2005
- Assistant Professor, Department of Mathematics & Statistics, University of North Carolina at Charlotte, 1998 - 2002
- Assistant Professor, Department of Mathematics, Missouri State University, 1995 - 1998
- Instructor, GTA and GRA, Department of Statistics, University of California, Davis, 1991 - 1995

- Lecturer, Department of Mathematics, Zhejiang University, China, 1988 - 1991
- Applied Statistician, Institute for Remote Sensing, China University of Geosciences, Wuhan, China, 1982 - 1985
- Guest Professor, Shandong University of Finance and Economics, Jinan, China, 2016 –
- Affiliate Research Professor, Department of Mathematical Sciences, Florida Atlantic University, April, 2013 —
- Guest Professor, North China Electric Power University, Beijing, China, 2014–
- Guest Professor, Dongbei University of Finance and Economics, China, 2014–
- Guest Professor, College of Business, Shanghai Normal University, China, 2007 - 2009
- Guest Professor, School of Finance, Nanjing University of Economics and Finance, China, 2008 - 2010
- Guest Professor, College of Economics, Zhejiang University, China, 2006 - 2008
- Member of Scientific Committee, the Center for Statistical Research, Chinese Academy of Sciences, 2005 -
- Special-Term Professor, College of Economics and Management, Shanghai Jiaotong University, China, 2004 - 2006
- Guest Professor, China University of Geosciences, Wuhan, China, 2002 - 2006
- Guest Professor, Qingdao University, China, 2002 - 2006
- Visiting Professor, Humboldt University, Germany, Summer of 2002
- Visiting Professor, Litoral University, France, Summer of 1999

ACADEMIC AWARDS and HONORS:

- ★ The Econometric Theory Multa Scripsit Award, 2013.
- ★ Fellow of The American Statistical Association (ASA), 2013.
- ★ Julius R. Blum Memorial Award to the outstanding graduate students, UC-Davis, 1992.
- ★ Second Award for Excellent Achievements in Research by Zhejiang Province, China, 1991.
- ★ The President of The Chinese Economists Society (CES) for 2018-2019
- ★ Member of the Board of Directors of the CES for 2015-2016
- ★ Member of the CES
- ★ Member of The Econometrics Society (ES)
- ★ Member of The American Statistical Association (ASA)
- ★ Member of The Society of Economic Measurement (SEM)

- ★ Member of Institute of Mathematical Statistics (IMS), 1992-2016
- ★ Member of The Chinese International Statistical Association (ICSA)

EDITORIAL WORK:

- Associate Editor, *Journal of Business and Economic Statistics*, 2012 – .
- Associate Editor, *Econometric Theory*, 2010 – 2016.
- Member of Editorial Board, *Econometric Reviews*, 2016 – .
- Member of Editorial Board, *Econometrics*, 2012 – .
- Member of Editorial Board, *Annals of Financial Economics*, 2016 – .
- Associate Editor, *African Finance Journal*, 2010 – .
- Member of Editorial Board, *Big Data and Cloud Innovation*, 2017 – .
- Member of Editorial Board, *Applied Mathematics – A Journal Of Chinese Universities*, 2012 – .
- Member of Editorial Board, *International Journal of Energy and Statistics*, 2013 – .
- Member of Editorial Board, *Journal of Testing and Evaluation*, 2012 — 2013.
- Guest Editor for the special issue of *Journal of Econometrics*, 2010.
- Guest Editor for the special issue of *Journal of Econometrics*, 2015.
- Guest Editor for the special issue of *Journal of Management Science and Engineering*, 2018.

RESEARCH INTERESTS:

- Business Analytics
- Data Science and Related Fields
- Quantitative Finance in Big Data • Theoretical and Applied Econometrics
- Financial Econometrics
- Panel Data Analysis
- Quantitative Finance and Risk Management
- Microeconometrics
- Economic Analysis and Program Evaluation
- Applied Econometrics in Labor Economics and Macroeconomics
- Nonlinear Time Series Modeling
- Nonparametric Curve Estimation and Tests
- Survival and Longitudinal Analysis with Applications in Economics and Finance

Courses Taught for Master and Ph.D levels for Economics and Finance Majors University of Kansas (KU), UNC-Charlotte (UNCC) and Xiamen University (XMU) as well as other universities:

- Econometrics (ECON715) for Master and undergraduate students at KU, Spring 2016, 2017, 2018.
- Advanced Econometric Theory I (ECON817) for Ph.D. students at KU, Fall 2014, 2015, 2016, 2017, 2018, Spring 2019
- Advanced Econometric Theory II (ECON818) for Ph.D. students at KU, Spring 2014.
- Advanced Topics in Econometrics I (ECON915, Microeconometrics) for Ph.D. students at KU, Spring 2014, Fall 2016, Fall 2018
- Advanced Topics in Econometrics III (ECON918, Financial Econometrics) for Ph.D. students at KU, Fall 2014 2015, and 2017

- Advanced Topics in Quantitative Finance (Advanced Econometrics III, BPHD8140) at UNCC
- Financial Econometrics at UNCC (ECON6219)
- Advanced Business and Economic Forecasting at UNCC (ECON6218)
- Cross-Sectional and Time Series Econometrics at UNCC (ECON6113)
- Advanced Topics in Financial Econometrics at XMU, Master and Ph.D. levels for economics and finance majors
- Nonparametric Econometrics at XMU, Ph.D. level for economics and finance majors
- Time Series Econometrics at XMU, Master level for economics and finance majors
- Advanced Time Series Econometrics (at Shanghai Jiaotong University and Fudan University), Ph.D. level for economics major
- Advanced Econometrics (at Shanghai Jiaotong University), Ph.D. level for economics major

PUBLICATIONS:

◇ Papers Submitted and Revised and Re-submitted (R&R):

- 105 Liu, Z., Z. Cai, Y. Fang and M. Lin (2019). Statistical analysis and evaluation of macroeconomic policies: A selective review. Submitted to *Applied Mathematics – A Journal Of Chinese Universities, Series B*.
- 104 Liu, G., W. Long, Z. Cai and Y. Yang (2019). Semiparametric estimation and model selection for conditional mixture copula models. Submitted to *Econometrics Journal*.
103. Q. Xu, Z. Cai and Y. Fang (2018). Semiparametric inferences on fixed effects panel data models via nearest neighbor difference transformation. Submitted to *Econometric Reviews*.
102. Cai, Z., Y. Fang and Q. Xu (2018). Functional-coefficient panel data models with cross-sectional dependence: An application to inferences on capital asset pricing models. Submitted to *Journal of Econometrics*.
101. Yang, B., X. Liu, L. Peng and Z. Cai (2018). Unified tests for a dynamic predictive regression. Submitted to *Journal of Business and Economic Statistics*.
100. Yang, B., Z. Cai, C. Hafner and G. Liu (2018). Trending mixture copula models with copula selection. Submitted to *Journal of Business & Economic Statistics*

◇ Papers Accepted or Forthcoming:

99. Tian, D., Z. Cai and Y. Fang (2018). Econometric modeling for risk measures: A selective review of the recent literature. Forthcoming in *Applied Mathematics – A Journal Of Chinese Universities, Series B*.

◇ Papers Published:

98. Yang, J., W. Wu, X. Mao and Z. Cai (2019). Quantile analysis of investment in private participation in infrastructure projects. *Annals of Financial Economics*, **14** (2019), xxx-xxx.
97. Yang, J., W. Wu and Z. Cai (2019). A study on impact of corporate social responsibility on the value of cash holdings. *System Engineering: Theory & Practice*, **39** (2019), .
96. Liu, X., B. Yang, Z. Cai and L. Peng (2019). A unified test for predictability of asset returns regardless of properties of predicting variables. *Journal of Econometrics*, **208** (2019), 141-159.
95. Cai, Z., Y. Fang, M. Lin and J. Su (2019). Inferences for a partially varying coefficient model with endogenous regressors. *Journal of Business & Economic Statistics*, **37** (2019), 158-170.
94. Cai, Z., Y. Fang and D. Tian (2018). Assessing tail risk using expectile models with partially varying coefficients. *Journal of Management Science and Engineering*, **3**(4) (2018), 179-209.
93. Cai, Z., Y. Hong and S. Wang (2018). Econometric modeling and economic forecasting. *Journal of Management Science and Engineering*, **3**(4) (2018), 211-214.
92. Duan, H. and Z. Cai (2018). Innovation, endogenous growth and climate change: Comments on works of the 2018 Nobel Prize winners in economic sciences. *Management Review*, **30**(10) (2018), 1-13.
91. Cai, Z., L. Chen and Y. Fang (2018). Quantile panel data models with partially varying coefficients with an application to the growth effect of FDI. *Journal of Econometrics*, **206** (2018), 531-553.
90. Cai, Z., C. Hsiao and Y. Hong (2018). Advance in theoretical econometrics – essays in honor of Takeshi Amemiya. *Journal of Econometrics*, **206** (2018), 279-281.
89. Liao, X., Z. Cai and H. Chen (2018). A perspective on recent models for testing predictability of asset returns. *Applied Mathematics – A Journal Of Chinese Universities, Series B*, **33** (2018), 127-144.
88. Yang, J., W. Wu, M. Zhong and Z. Cai (2017). Earnings management and liquidity risk. *Journal of Systems Engineering*, **32** (2017), 346-359.
87. Cai, Z., B.-Y. Jing, X.-B. Kong and Z. Liu (2017). Nonparametric regression with nearly integrated regressors under long run dependence. *Econometrics Journal*, **20** (2017), 118-138.
86. Sun, Y., Z. Cai and Q. Li (2016). A consistent nonparametric test on parametric smooth coefficient model with nonstationary data. *Econometric Theory*, **32** (2016), 988-1022.
85. Liu, X., F. Yang and Z. Cai (2016). Does relative risk aversion vary with wealth? Evidence from households' portfolio choice data. *Journal of Economic Dynamics and Control*, **69** (2016), 229-248.

84. Xu, Q., Z. Cai and Y. Fang (2016). Panel data models with cross-sectional dependence. *Applied Mathematics – A Journal Of Chinese Universities, Series B*, **31** (2016), 127-148.
83. Cai, Z., T. Juhl and B. Yang (2015). Functional index coefficient models with variable selection. *Journal of Econometrics*, **189** (2015), 272-284.
82. Cai, Z., Y. Ren and B. Yang (2015). A semiparametric conditional capital asset pricing model. *Journal of Banking and Finance*, **61** (2015), 117-126.
81. Liu, X., Z. Cai and R. Chen (2015). Functional coefficient seasonal time series models with an application of Hawaii tourism data. *Computational Statistics*, **30** (2015), 719-744.
80. Lin, W., Z. Cai, Z. Li and L. Su (2015). Optimal smoothing in nonparametric conditional quantile derivative function estimation. *Journal of Econometrics*, **188** (2015), 502-513.
79. Cai, Z., Y. Wang and Y. Wang (2015). Testing instability in predictive regression model with nonstationary regressors. *Econometric Theory*, **31** (2015), 953-980.
78. Cai, Z., Y. Ren and L. Sun (2015). Pricing kernel estimation: Local estimating equation approach. *Econometric Theory*, **31** (2015), 560-580.
77. Li, X., Z. Cai and Y. Ren (2015). A new test on the conditional capital asset pricing model. *Applied Mathematics – A Journal Of Chinese Universities, Series B*, **30** (2015), 163-186.
76. Cai, Z., J. Su and Sufianti (2015). A regression analysis of expected shortfall. *Statistics and Its Interface*, **8** (2015), 295-303.
75. Cai, N., Z. Cai, Y. Fang and Q. Xu (2015). Forecasting major Asian exchange rates using a new semiparametric STAR model. *Empirical Economics*, **48** (2015), 407-426.
74. Cai, Z., J. Jiang, J. Zhang and X. Zhang (2015). A new semiparametric test for superior predictive ability. *Empirical Economics*, **48** (2015), 389-405.
73. Cai, Z., L. Chen and F. Fang (2015). Semiparametric estimation of partially varying-coefficient dynamic panel data models. *Econometric Reviews*, **34** (2015), 694-718.
72. Cai, Z. and Y. Wang (2014). Corrigendum to “Testing predictive regression models with nonstationary regressors” [J. Econometrics 178 (2014) 4-14], *Journal of Econometrics*, **181** (2014), 194.
71. Cai, Z. and X. Wang (2014). Selection of mixed copula model via penalized likelihood. *Journal of The American Statistical Association*, **109** (2014), 788-801.
70. Zhu, F., Z. Cai and L. Peng (2014). Predictive regressions for macroeconomics data. *The Annals of Applied Statistics*, **8** (2014), 577-594.
69. Cai, Z. and Y. Wang (2014). Testing predictive regression models with nonstationary regressors. *Journal of Econometrics*, **178** (2014), 4-14.

68. Sun, Y. Z. Cai and Q. Li (2013). Semiparametric functional coefficient models with integrated covariates. *Econometric Theory*, **29** (2013), 659-672.
67. Cai, N., Z. Cai and Y. Fang (2013). A new nonparametric stability test with an application to major Chinese macroeconomic time series. *Applied Mathematics – A Journal Of Chinese Universities, Series B*, **28** (2013), 1-16.
66. Cai, Z., L. Chen and Y. Fang (2013). A new forecasting model for USD/CNY exchange rate. *Studies in Nonlinear Dynamics and Econometrics*, **16** (2012), No.3, Article 4, 1-18.
65. Cai, Z. and H. Xiong (2012). Partially varying-coefficient instrumental variables models. *Statistica Neerlandica*, **66** (2012), 85-110.
64. Cai, Z., L. Chen and Y. Fang (2012). Semi-parametric forecasting model for USD/CNY exchange rate. *System Engineering: Theory & Practice*, **32** (2012), 685-692.
63. Cai, Z. and Z. Xiao (2012). Semiparametric quantile regression estimation in dynamic models with partially varying coefficients. *Journal of Econometrics*, **167** (2012), 413-425.
62. Cai, Z., Y. Fang, and H. Li (2012). Weak instrumental variables models for longitudinal data. *Econometric Reviews*, **31** (2012), 361-389.
61. Cai, Z., Y. Fang and J. Su (2012). Reducing the asymptotic bias of weak instruments estimation using independently repeated cross-sectional information. *Statistics and Probability Letters*, **82** (2012), 180-185.
60. Cai, Z. (2011). Nonparametric regression models with integrated covariates. *Nonparametric Statistical Methods and Related Topics (Eds: J. Jiang, G.G. Roussas and F.J. Samaniego): A Festschrift in Honor of Professor P.K. Bhattacharya on his 80th Birthday*, 2011, pp.257-275.
59. Yang, B., S. Wang and Z. Cai (2011). Nonparametric approach to calculate seasonal factors for AADT estimation. *The Proceeding of The 18th International Federation of Automatic Control World Congress 2011*, August 28 – September 2, 2011, 10727-10732.
58. Cai, Z. (2010). Functional coefficient models for economic and financial data. In *Oxford Handbook of Functional Data Analysis (Eds: F. Ferraty and Y. Romain)* (2010). Oxford University Press, Oxford, UK, pp.166-186.
57. Ma, Y, M. Chen, Z. Cai and M. Zhang (2010). Mean-reverting jump diffusion model of China stock warrants. *System Engineering: Theory & Practice*, **30** (2010), 14-21.
56. Cai, Z. and Y. Hong (2009). Some recent developments in nonparametric finance. *Advances in Econometrics*, **25** (2009), 379-432.
55. Cai, Z., J. Gu and Q. Li (2009). Recent developments in nonparametric econometrics. *Advances in Econometrics*, **25** (2009), 495-549.
54. Chen, R., Z. Cai and M. Chen (2009). The minimum-LPM hedge ratio based on the mixed copula method. *Journal of Xiamen University: Arts & Social Sciences*, **193** (2009), 34-40.

53. Cai, Z., Q. Li and Y. Park (2009). Functional-coefficient models for nonstationary time series data. *Journal of Econometrics*, **148** (2009), 101-113.
52. Cai, Z. and X. Xu (2008). Nonparametric quantile estimations for dynamic smooth coefficient models. *Journal of the American Statistical Association*, **103** (2008), 1596-1608.
51. Cai, Z. and H. Li (2008). Convergency and divergency of functional coefficient weak instrumental variables models. *Statistics and Its Interface*, **1** (2008), 333-346.
50. Cai, Z. and X. Wang (2008). Nonparametric methods for estimating conditional value-at-risk and expected shortfall. *Journal of Econometrics*, **147** (2008), 120-130.
49. Cai, Z. and Q. Li (2008). Nonparametric estimation of varying coefficient dynamic panel models. *Econometric Theory*, **24** (2008), 1321-1342.
48. Cai, Z. (2007). Trending time varying coefficient time series models with serially correlated errors. *Journal of Econometrics*, **136** (2007), 163-188.
47. Cai, Z., M. Das, H. Xiong and X. Wu (2006). Functional coefficient instrumental variables models. *Journal of Econometrics*, **133** (2006), 207-241.
46. Cai, Z. and R. Chen (2006). Flexible seasonal time series models. *Advances in Econometrics*, **20B** (2006), 63-87.
45. Ould-Said, E. and Z. Cai (2005). Strong uniform consistency of nonparametric estimation of the censored conditional mode function. *Journal of Nonparametric Statistics*, **17** (2005), 797-806.
44. Cai, Z. (2003). Local quasi-likelihood approach to varying-coefficient discrete-valued time series models. *Journal of Nonparametric Statistics*, **15** (2003), 693-711.
43. Cai, Z. and E. Ould-Said (2003). Local M-estimator for nonparametric time series. *Statistics and Probability Letters*, **65** (2003), 433-449.
42. Cai, Z. (2003). Weighted local linear approach to censored nonparametric regression. In *Recent Advances and Trends in Nonparametric Statistics* (M.G. Akritas and D.M. Politis, eds.) (2003), 217-231.
41. Cai, Z. and Y. Hong (2003). Nonparametric methods in continuous-time finance: A selective review. In *Recent Advances and Trends in Nonparametric Statistics* (M.G. Akritas and D.M. Politis, eds.) (2003), 283-302.
40. Cai, Z. (2003). Nonparametric estimation equations for time series data. *Statistics and Probability Letters*, **62** (2003), 379-390.
39. Cai, Z. and Y. Sun (2003). Local linear estimation for time-dependent coefficients in Cox's regression models. *Scandinavian Journal of Statistics*, **30** (2003), 93-111.
38. Fan, J., Q. Yao and Z. Cai (2003). Adaptive varying-coefficient linear models. *Journal of the Royal Statistical Society, series B*, **65** (2003), 57-80.

37. Cai, Z. (2002). A two-stage approach to additive time series models. *Statistica Neerlandica*, **56** (2002), 415-433.
36. Cai, Z. (2002). Two-step likelihood estimation procedure for varying-coefficient models. *Journal of Multivariate Analysis*, **82** (2002), 189-209.
35. Cai, Z. (2002). Regression quantiles for time series. *Econometric Theory*, **18** (2002), 169-192.
34. Cai, Z. (2002). Estimating a distribution for censored time series data. *Journal of Multivariate Analysis*, **78** (2001), 299-318.
33. Cai, Z., Q. Yao and W. Zhang (2001). Smoothing for discrete-value time series. *Journal of the Royal Statistical Society, series B*, **63** (2001), 357-375.
32. Cai, Z. (2001). Weighted Nadaraya-Watson regression estimation. *Statistics and Probability Letters*, **51** (2001), 307-318.
31. Cai, Z. and L. Qian (2000). Local estimation of a biometric function with covariate effects. In *Asymptotics in Statistics and Probability* (M. Puri, ed) (2000) 47-70.
30. Cai, Z. and J. Fan (2000). Average regression surface for dependent data. *Journal of Multivariate Analysis*, **75** (2000), 112-142.
29. Cai, Z., P.A. Naik and C.L. Tsai (2000). Denoised least squares estimators: An application to estimating advertising effectiveness. *Statistica Sinica*, **10** (2000), 1231-1241.
28. Cai, Z., J. Fan and Q. Yao (2000). Functional-coefficient regression models for nonlinear time series. *Journal of the American Statistical Association*, **95** (2000), 941-956.
27. Cai, Z., J. Fan and R. Li (2000). Efficient estimation and inferences for varying-coefficient models. *Journal of the American Statistical Association*, **95** (2000), 888-902.
26. Cai, Z. and E. Masry (2000). Nonparametric estimation in nonlinear ARX time series models: Projection and linear fitting. *Econometric Theory*, **16** (2000), 465-501.
25. Cai, Z. and R.C. Toward (2000). Application of a local linear autoregressive model to BOD time series. *Environmetrics*, **11** (2000), 341-350.
24. Cai, Z. and G.G. Roussas (1999). Berry-Esseen bounds for smooth estimate of a distribution function under association. *Journal of Nonparametric Statistics*, **11** (1999), 79-106.
23. Cai, Z. and G.G. Roussas (1999). Weak convergence for smooth estimator of a distribution function under negative association. *Journal of Stochastic Analysis and Applications*, **17** (1999), 145-168.
22. Cai, Z. and C.L. Tsai (1999). Diagnostics for nonlinearity in generalized linear models. *Journal of Statistical Computation and Simulation*, **29** (1999), 445-469.
21. Cai, Z. and G.G. Roussas (1998). Kaplan-Meier estimator under association. *Journal of Multivariate Analysis*, **67** (1998), 318-348.

20. Cai, Z. (1998). Kernel density and hazard rate estimation for censored dependent data. *Journal of Multivariate Analysis*, **67** (1998), 23-34.
19. Cai, Z., C.L. Tsai and X.Z. Wu (1998). The examination of residual plots. *Statistica Sinica*, **8** (1998), 445-465.
18. Cai, Z. and G.G. Roussas (1998). Efficient estimation of a distribution function under quadrant dependence. *Scandinavian Journal of Statistics*, **25** (1998), 211-224.
17. Cai, Z. (1998). Asymptotic properties of Kaplan-Meier estimator for censored dependent data. *Statistics and Probability Letters*, **37** (1998), 381-389.
16. Cai, Z., C.M. Hurvich and C.L. Tsai (1998). Score tests for heteroscedasticity in wavelet regression models. *Biometrika*, **85** (1998), 229-234.
15. Cai, Z. and G.G. Roussas (1997). Smooth estimate of quantiles under association. *Statistics and Probability Letters*, **36** (1997), 275-287.
- * Cai, Z. (1995). *Statistical Inference under Dependence*. Ph.D. Dissertation (1995), Department of Statistics, University of California, Davis.
14. Cai, Z. (1993). Uniform strong convergence and rates for the kernel estimator of a distribution function and a regression function under weakly dependent observations. *Journal of Applied Probability and Statistics*, **9** (1993), 11-17.
13. Cai, Z. (1993). Asymptotic normality of recursive kernel density estimator under dependent assumptions. *Journal of Applied Probability and Statistics*, **9** (1993), 123-129.
12. Cai, Z. and G.G. Roussas (1992). Uniform strong estimation under α -mixing, with rates. *Statistics and Probability Letters*, **15** (1992), 47-55 (with G.G. Roussas).
11. Cai, Z. (1992). On complete convergence of nonparametric regression M-quantiles. *Journal of System Sciences and Mathematics*, **5** (1992), 227-232.
10. Cai, Z. (1992). Moderate deviations and large deviations for generalized L-statistics. *The Annals of Chinese Mathematics*, **13A** (1992), 364-372.
9. Cai, Z. (1992). Strong approximation and Erdős-Rényi type laws of sum for independently but non-identically random variables. *Journal of Hangzhou University*, **19** (1992), 240-246.
8. Cai, Z. (1991). Strong consistency and rates for recursive nonparametric conditional probability density estimator under (α, β) -mixing conditions. *Stochastic Processes and Their Applications*, **38** (1991), 323-333.
7. Cai, Z. (1991). Some remarks on the strong convergence of weighted sums for independent random variables. *Applied Mathematics - A Journal for Chinese Universities, Series A*, **6** (1991), 44-51.
6. Cai, Z. (1991). On Chernoff-type large deviations for trimmed U-statistics. *Journal of Hangzhou University*, **18** (1991), 21-26.

5. Cai, Z. (1991). Convergence properties for stochastic measures of the accuracy of double kernel estimator of conditional probability density. *Journal of Hangzhou University*, **18** (1991), 390-401.
4. Cai, Z. (1990). Strong consistency and rates for estimator of probability density for weakly dependent random variables. *Journal of System Sciences and Mathematics*, **10** (1990), 360-370.
3. Cai, Z. (1989). Rate of convergence in the SLLN for dependent random variables. *Journal of Applied Probability and Statistics*, **5** (1989), 256-264.
2. Cai, Z. (1989). Central limit theorem for integrated square error of double kernel estimator of conditional density. *Journal of Hangzhou University*, **16** (1989), 123-131.
1. Cai, Z. (1988). A strong law for linear functions of order statistics under dependent assumptions. *Journal of Hangzhou University*, **15** (1988), 378-383.

◇ **Working Papers:**

1. Functional coefficient stochastic volatility model. *Working paper*, The Wang Yanan Institute for Studies in Economics, Xiamen University (2008) (with Zhuo Zhong).
2. Testing for discontinuous diffusion models versus jump diffusion models. *Working paper*, The Wang Yanan Institute for Studies in Economics, Xiamen University (2008) (with Longqing Zhang).
3. Information effect for different firm-size – via the nonparametric jump-diffusion model. *Working paper*, The Wang Yanan Institute for Studies in Economics, Xiamen University (2008) (with Longqing Zhang).
4. Local quasi-likelihood method for generalized random curve models with longitudinal data. *Working paper*, Department of Mathematics and Statistics, University of North Carolina at Charlotte (2002) (with H. Wu).

ACADEMIC GRANTS:

- NSF Grant for the proposal “Nonlinear and Nonstationary Time Series Modeling with Its Applications”, 2004-2007, #DMS-0404954
- NSF Grant for the proposal “Nonparametric Time Series Modeling”, 2000-2003, extended to 2004, #DMS-0072400
- Faculty Research Grant of University of North Carolina at Charlotte, 2006
- Reassignment of Duties Grant of University of North Carolina at Charlotte, Spring 2004
- Faculty Research Grant of University of North Carolina at Charlotte, 2003
- Faculty Research Grant of University of North Carolina at Charlotte, 2002
- Faculty Research Grant II of University of North Carolina at Charlotte, 2001
- Faculty Research Grant I of University of North Carolina at Charlotte, 2001
- Faculty Research Grant of University of North Carolina at Charlotte, 2000
- Faculty Research Grant of University of North Carolina at Charlotte, 1999
- Faculty Research Grant of Southwest Missouri State University, 1998
- NSF Grant of Zhejiang Province, China, 1990

INVITED COLLOQUIUM TALKS, LECTURES, and CONFERENCE PRESENTATIONS:

[2019]

- Center for Economics Research, Shandong University, China, 2019
- Institute for Financial Studies, Shandong University, China, 2019
- School of Mathematics, Shandong University, China, 2019 (twice)
- School of Business, Huana University, China, 2019
- School of Statistics, Eastern China Normal University, China, 2019

[2018]

- Department of Mathematics, University of Missouri, Kansas City, 2018
- Xiamen National Accounting Institute, China, 2018 (4 seminar lectures)
- School of Economics, Dongbei University of Finance and Economics, China, 2018 (4 seminar lectures)
- School of Economics and Management, Shanxi University, China, 2018
- School of Economics, Shanxi University of Finance and Economics, China, 2018
- School of Economics and Management, North China Electric and Power University, China, 2018
- China Center for Agricultural Policy (CCAP), School of Advanced Agricultural Sciences (SAAS), Peking University, China, 2018
- Department of Economics, Vanderbilt University, 2018
- Department of Statistics, Iowa State university, 2018

[2017]

- School of Economics, Henan University, China, 2017
- School of Economics and Management, China University of Geoscience, China, 2017
- School of Business, Hunan University, China, 2017 (twice)
- School of Economics and Management, University of Electronic Science and Technology of China, China, 2017
- Department of Mathematics, Hong Kong University of Science and Technology, Hong Kong, China, 2017
- School of Economics, Nankai University, China, 2017
- School of Statistics, Southwestern University of Finance and Economics, China, 2017
- Center for Statistical Research, Tshinghua University, China, 2017
- School of Economics and Statistics, Guangzhou University, China, 2017
- Center for Economics Research, Shandong University, China, 2017 (twice)
- Zhongtai Securities Institute for Finance Studies, Shandong University, China, 2017
- School of Economics, Dongbei University of Finance and Economics, China, 2017
- School of Statistics, Jiangxi University of Finance and Economics, China, 2017

[2016]

- School of Economics and Trade, Hunan University, China, 2016
- School of Business, Hunan University, China, 2016
- Academy of Mathematics and Systems Science, Chinese Academy of Science, 2016
- School of Finance, Jiangxi University of Finance and Economics, China, 2016
- School of Statistics, Jiangxi University of Finance and Economics, China, 2016

- School of Business, Hunan Normal University, China, 2016
- School of Business, Hunan University, China, June, 2016
- Department of Economics, Tulane University, 2016
- School of Statistics, Shanghai University of Finance and Economics, China, 2016

[2015]

- Department of Economics, University of Nevada, Reno, 2015
- Department of Economics, University of Missouri, Columbia, 2015
- Center for Economics Research, Shandong University, China, 2015
- School of Business, Sichun University, China, 2015 (3 lectures for the Summer School)
- School of Economics, Dongbei University of Finance and Economics, China, 2015
- School of Business, Hunan University, China, 2015 (4 lectures)
- School of Mathematics and Statistics, Yunnan University, China, 2015
- School of Economics, Nankai University, China, 2015
- Department of Mathematics, Xi'an Jiaotong University - Liverpool University, China, 2015

[2014]

- Academy of Mathematics and Systems Science, Chinese Academy of Science, 2014
- Department of Statistics, University of Wisconsin, 2014
- Department of Economics, Kansas State University, 2014
- School of Economics and Trade, Guangdong University of Foreign Studies and Trade, China, 2014
- School of Statistics, Shanghai University of Finance and Economics, China, 2014 (a series of lectures)
- Department of Mathematics, University of Missouri, Kansas City, 2014
- Center for Economics Research, Shandong University, China, 2014
- School of Mathematics and Mathematical Economics, Dongbei University of Finance and Economics, China, January and July, 2014

[2013]

- School of Management, Fudan University, China, 2013
- Department of Economics, University of California at Davis, 2013
- School of Mathematics and Mathematical Economics, Dongbei University of Finance and Economics, China, 2013
- International School of Economics and Management, Capital University of Finance and Economics, China, 2013
- School of Economics and Statistics, Guangzhou University, China, 2013
- School of Economics and Trade, Guangdong University of Foreign Studies and Trade, China, 2013
- School of Information and Management, Jiangxi University of Finance and Economics, China, 2013
- School of Mathematics, Wenzhou University, China, 2013

[2012]

- Department of Economics, University of Kansas, 2012
- Guanghua School of Management, Peking University, China, 2012
- Department of Economics, State University of New York at Binghamton, 2012
- Department of Mathematics, State University of New York at Binghamton, 2012

- School of Mathematics, Lanzhou University, China, 2012
- Department of Mathematics, Zhejiang University, China, 2012
- School of Mathematics and Mathematical Economics, Dongbei University of Finance and Economics, China, 2012

[2011]

- School of Mathematics, Suzhou University, China, 2011
- School of Management and Economics, Tianjin University, China, 2011
- School of Mathematics, Nankai University, China, 2011
- School of Economics, Nankai University, China, 2011
- Center for Economics Research, Shandong University, China, 2011
- Sim Kee Boon Institute for Financial Economics, Singapore Management University, 2011
- Department of Economics, National Singapore University, 2011
- School of Mathematics and Mathematical Economics, Dongbei University of Economics and Finance, China, 2011
- Center for Economics Research, Shandong University, China, 2011
- Department of Finance, Cincinnati University, 2011

[2010]

- China Center for Economics Research, Peking University, China, 2010
- Department of Finance, University of North Carolina at Charlotte, 2010
- Department of Economics, Rice University, 2010
- Department of Statistics, Virginia University, 2010
- Department of Economics, University of California, Riverside, 2010
- School of Economics and Management, Beihang University, China, 2010
- School of Statistics, Southwestern University of Finance and Economics, China, 2010
- School of Mathematics and Statistics, Northeastern Normal University, China, 2010
- School of Economics and School of Mathematics, Qingdao University, China, 2010
- School of Mathematics, Lanzhou University, China, 2010
- School of Statistics, Zhejiang Business (Gongshang) University, China, 2010

[2009]

- Department of Economics, Southern Methodist University, 2009
- Department of Economics, University of Oklahoma, 2009
- School of Statistics, Southwest University of Finance and Economics, China, 2009 (a series of seminars)
- School of Business, Huaqiao University, China, 2009 (a series of seminars)
- Department of Mathematics, Hong Kong University of Science and Technology, 2009
- Department of Mathematics, Zhejiang University, 2009
- School of Finance, Nanjing University of Finance and Economics, 2009
- School of Economics, Sungkyunkwan University, South Korea, 2009 (a series of seminars)
- Department of Economics, State University of New York at Binghamton, 2009

[2008]

- School of Economics, Shanghai University of Economics and Finance, 2008
- Department of Economics, Texas A&M University, 2008
- Department of Economics, Rochester University, 2008

- Department of Economics, East Carolina University, 2008
- Center for Economic Research, Shandong University, 2008
- School of Economics and Management, Beihang University, 2008 (a series of seminars)
- Institute of Economics, Academia Sinica, Taiwan, 2008
- School of Economics and Management, Shanghai Maritime University, 2008
- Guanghua School of Management, Beijing University, 2008
- School of Finance, Nanjing University of Finance and Economics, 2008
- Department of Economics, Indiana University, 2008
- School of Mathematics, Xiamen University, 2008
- School of Mathematics, Shandong University, 2008
- School of Statistics and Mathematics, Shandong Economics University, 2008
- Department of Statistics, Indiana University, 2008
- Department of Mathematics, Georgia Institute of echnology, 2008

[2007]

- School of Finance, Nanjing University of Finance and Economics, 2007
- School of Economics and Management, Shanghai Maritime University, 2007
- School of Business, Shanghai Normal University, 2007
- Center for Econometrics, Shanghai Academy of Social Sciences, 2007
- Department of Forest Economics, Swedish University of Agricultural Sciences, 2007
- School of Management, Fudan University, 2007 (a series of seminars)
- School of Economics, Fudan University, 2007
- School of Economics, China University of Geosciences, 2007
- School of Economics, Huazhong Sciences and Technology University, 2007
- School of Economics and Management, Shandong Sciences and Technology University, 2007
- School of Economics and Management, Beihang University, 2007 (a series of seminars)
- School of Economics and Management, Fujian Agriculture and Forestry University, 2007
- School of Economics, Singapore Management University, 2007
- School of Mathematics, Qingdao University, 2007
- Department of Statistics, University of North Carolina at Chapel Hill, 2007
- Department of Mathematics, Georgia Institute of Technology, 2007
- Department of Statistics, University of Chicago, 2007

[2006]

- Wang Yanan Institute for Studies in Economics, Xiamen University, 2006
- Center for Financial Engineering, Shanghai Institute of Finance, 2006
- School of Business, Shanghai Normal University, 2006
- Center for Financial Engineering, Shandong University, 2006
- School of Statistics and Insurance, Shandong Economics University, 2006
- School of Economics, Qingdao University, 2006
- Department of Economics, Vanderbilt University, 2006
- Center for Advanced Mathematics, Nanjing University, 2006
- School of Mathematics, Qingdao University, 2006
- School of Mathematics, Shandong University, 2006
- Department of Mathematics, Southeast University, 2006
- Department of Statistics, Iowa State University, 2006

- Academy of Mathematics and Systems Science, Chinese Academy of Science, 2006

[2005]

- Wang Yanan Institute for Studies in Economics, Xiamen University, 2005
- Department of Economics, New York University, 2005
- School of Economics, Xiamen University, 2005 (a series of seminars)
- School of Management, Shanghai Jiaotong University, 2005
- School of Economics, Zhejiang University, 2005
- Department of Mathematics, Zhejiang University, 2005
- Department of Mathematics, Southeast University, 2005

[2004]

- School of Economics, Shanghai University of Finance and Economics, 2004
- School of Management, Fudan University, 2004
- Department of Economics, Columbia University, 2004
- Department of Economics, Syracuse University, 2004
- Academy of Mathematics and Systems Science, Chinese Academy of Science, 2004
- School of Statistics, Remin University, China, 2004
- Department of Mathematics, Qingdao University, 2004
- Department of Mathematics, Zhejinag University, 2004

[2003]

- Institute of Economics, Academia Sinica, 2003
- School of Economics, Zhejinag University, 2003
- School of Economics, China University of Geosciences, 2003
- Graduate School of Business, University of Chicago, 2003

[2002]

- Guanghua School of Management, Beijing University, 2002
- School of Management, Syracuse University, 2002
- Department of Economics, Cornell University, 2002
- Department of Statistics, Pennsylvania State University, 2002
- Department of Mathematics, Qingdao University, 2002
- Department of Mathematics, China University of Geosciences, 2002
- Department of Statistics, North Carolina State University, 2002
- Department of Biostatistics, Rochester University, 2002

[2001]

- Department of Statistics, University of Illinois at Champaign, 2001

[1995-2000]

- Department of Statistics, University of South Carolina at Columbia, 2000
- Department of Mathematics, Littoral University, France, 1999
- Department of Mathematics, University of North Carolina at Charlotte, 1998
- Department of Mathematics, Indiana University & Purdue University, 1998
- Department of Statistics, University of Missouri at Columbia, 1998
- Department of Mathematics, University of Maine, 1997
- Department of Statistics, University of California at Davis, 1995

- Department of Mathematics, Southwest Missouri State University, 1995
- Invited presentations (invited speaker or keynote speaker) to many international and domestic conferences, meetings, and workshops

PROFESSIONAL ACTIVITIES:

- Chair of the organizing committee for ‘2018 Workshop on Advanced Econometrics’, April 21, 2018, University of Kansas.
- Co-Chair of the local organizing committee for ‘2018 Conference for Society for Economic Measurement’, June 8-10, 2018, Xiamen University, China.
- Chair of the organizing committee for ‘2017 Workshop on Advanced Econometrics’, April 29, 2017, University of Kansas.
- Chair of the organizing committee for ‘2016 Workshop on Advanced Econometrics’, April 30, 2016, University of Kansas.
- Chair of the organizing committee for ‘2015 Workshop on Advanced Econometrics’, May 2, 2015, University of Kansas.
- Co-Chair of the organizing committee for “the International Symposium on Recent Developments in Econometric Theory with Application in Honor of Takashi Amemiya”, June 20-21, 2015, Xiamen, China.
- Chair of the organizing committee for ‘2014 Workshop on Advanced Econometrics’, April 26, 2014, University of Kansas.
- Co-Chair of the organizing committee for “the International Symposium on Recent Developments in Econometric Theory with Application in Honor of Jerry A. Hausman”, June 23-24, 2014, Xiamen, China.
- Chair of the local organizing committee for “The China Meeting of Econometrics Society 2014”, June 26-28, 2014, Xiamen, China.
- Co-Chair of the organizing committee for “Panel Data Analysis in Honor of Professor Cheng Hsiao” in Xiamen, China, June, 2013.
- Co-Chair of the organizing committee for “International Forum on Modern Statistics and Econometrics” in Xiamen, China, July, 2013.
- Co-Chair of the organizing committee of the international conference “Financial Engineering and Risk Management” in Xiamen, China, June, 2012.
- Co-Chair of the organizing committee for “International Forum on Modern Statistics and Econometrics” in Xiamen, China, July, 2012.
- Member of the Program Committee for “International Conference on Quantitative Finance and Risk Management” in Changchun, China, July, 2012.
- Co-Chair of the organizing committee for “International Forum on Modern Statistics and Econometrics” in Xiamen, China, December 2011.
- Member of the Program Committee for “The Econometric Society Australasian Meeting in 2011” (ESAM11) in Adelaide, Australia, July 2011.
- Co-chair of the organizing committee of the international symposium “Econometrics of Specification Test in Honor of Harl White” in Xiamen, China, June 2010.
- Co-Chair of the organizing committee of the international conference “Risk Management and Derivatives” in Xiamen, China, July 2009.
- Co-Chair of the organizing committee of the international conference “Nonlinear Time Series with Applications in Macroeconomics and Finance” in Xiamen, China, May 2008.
- Co-Chair of the organizing committee of the international conference “XMU-HUB Workshop in Economics and Finance” in Xiamen, China, April 2008.
- Co-Chair of the organizing committee of the international conference “Sino-Korean

Econometrics Workshop” in Xiamen, China, December 2007.

- Co-Chair of the organizing committee of the international conference “The 14th International Conference on Panel Data” in Xiamen, China, July 2007.

- Co-Chair of the organizing committee of the international conference “Financial Engineering and Risk Management” in Xiamen, China, June 2006.

- Co-Chair of the organizing committee of the international conference “Financial Engineering and Risk Management” in Shanghai, China, June 2005.

- Co-Chair of the organizing committee of the international symposium “New Frontiers of Statistics” in Beijing, July 2005.

- Chair of the Local Committee for ENAR/IMS Meeting in March, 2001 at Charlotte, NC.

- Member of the Screening Panel of the Statistics Program of the National Sciences Foundation, December, 2004

- Member of the Screening Panel of the Management Program of the National Sciences Foundation of China, 20014 —

- Reviewer for the National Sciences Foundation grant proposals

- Reviewer for the Chinese National Sciences Foundation grant proposals

- Reviewer for the Social Sciences and Humanities Research Council of Canada (SSHRC)

- Reviewer for the Social Sciences and Humanities Research Foundation of Hong Kong

- Referee for the following international journals:

Econometrica

Review of Economics and Statistics

Journal of Econometrics

Econometric Theory

Journal of Financial and Quantitative Analysis

Quantitative Finance

Econometrics Journal

Quarterly Review of Economics and Finance

Journal of Financial Econometrics

Econometrics Reviews

Economics Letters

Energy Policy

Energy Economics

Empirical Economics

Review of Futures Markets

Interfaces

Journal of Business and Economic Statistics

Journal of Applied Econometrics

Finance Research Letters

Journal of Economic Dynamics and Control

Journal of the American Statistical Association

Journal of the Royal Statistical Society, Series B

The Annals of Statistics

Biomatrika

Technometrics

IEEE Transactions on Information Theory

Biometrics

Psychometrika

Journal of Multivariate Analysis
Journal of Time Series Analysis
Scandinavian Journal of Statistics
Naval Research Logistics
Statistica Sinica
Computational Statistics
Journal of Statistical Planning and Inference
Communications in Statistics
Journal of Nonparametric Statistics
Statistics and Probability Letters
Computational Statistics and Data Analysis
Statistical Inference for Stochastic Processes
Computers and Mathematics with Applications
Mathematical Sciences Research Hot-Line

Ph.D. Students Under my supervision or I am the member of their Advisor Committee

★ The following students from University of Kansas under my supervision or I am the member in their advisor committee:

- Pixiong Chen (Supervisor)
- Zeyan Shen (Supervisor)
- Xiyuan Liu (Supervisor)
- Caio Augusto Vigo Pereira (Supervisor)
- Chen Sun (Supervisor)
- Sijun (Cherry) Yu (Co-Supervisor), “Essays on Time Inconsistent Monetary Policy”, September, 2016 (graduated).

- Qing Han (Committee Member)
- Ruoning Han (Committee Member)
- Kun He (Committee Member)
- Abdullah Alabdulkarim (Committee Member)
- Yue Feng (Committee Member), November, 2017 (graduated)
- Jingxian Hu (Committee Member), May, 2018 (graduated)
- Indrani Manna (Committee Member, Graduated May 2017)
- Zheng (Melody) Yin (Committee Member), Graduated, 2015
- Fan Wang (Committee member)
- Jessica Santos Dutra (Committee Member), May, 2018 (graduated)
- Zhiyue Zhang (Committee Member)
- Taylor Drane (Committee Member)
- Xunzhao Yin (Committee Member)
- Chaozheng Li (Committee Member)

- Chao Jiang (Committee Member) (Finance program, Graduated, May, 2016).
- Yaoyi Xi (Committee Member) (Finance program, graduated May, 2018)
- Yi Tan (Committee Member) (Finance program)
- Zheng Han (Committee Member) (Finance program)

★ The following students graduated from University of North Carolina at Charlotte under my solo supervision:

- [1] Huaiyu Xiong, “Semiparametric Instrument Variable Models”, December, 2004 (graduated).
- [2] Xiaoping Xu, “Semi/Non-parametric Dynamic Quantile Regression Models”, May 2005 (graduated).
- [3] Henong Li, “Semi/Non-parametric Weak Instrument Variable Models”, December, 2006 (graduated).
- [4] Xian Wang, “Selection of Copulas and Its Applications”, August, 2008 (graduated).
- [5] Yunfei Wang, “Predictive Regression Models for Asset Returns”, May, 2010 (graduated).
- [6] Linman Sun, “Nonparametric Pricing Kernel Models”, June, 2011 (graduated).
- [7] Bingduo Yang, “Variable Selection for Functional Index Coefficient Models and Its Application in Finance and Engineering”, May, 2012 (graduated).
- [8] Yonggang Wang, “Generalized Quasi-Likelihood Ratio Tests for Varying Coefficient Quantile Regression Models”, May, 2013 (graduated).
- [9] Wu Li, “Testing Predictability of Asset Returns”, October, 2013 (graduated).

ADMINISTRATIVE SERVICES:

★ The following services are at University of Kansas from July 2013:

2018-2019 school year:

- Member of Post Tenure Review Committee (Spring 2019)
- Member of External Review Committee (Spring 2019)
- Advisor for Master program in economics
- Member of Executive Committee
- Member of Faculty Evaluation Committee
- Member of Promotion and Tenure
- Member of College Council
- Chair of Computer and Technology Committee
- Member of Graduate Program Committee
- Chair of M.A. Admissions Committee

2017-2018 school year:

- Advisor for Master program in economics
- Member of Executive Committee
- Member of Faculty Evaluation Committee
- Member of Sabbatical Committee
- Chair of Computer and Technology Committee
- Member of Graduate Program Committee
- Chair of M.A. Admissions Committee

2016-2017 school year:

- Advisor for Master program in economics
- Member of Executive Committee
- Member of College Social Sciences Grant Research Fund Committee
- Member of Graduate Program Committee
- Chair of M.A. Admission/Policy Committee

2015-2016 school year:

- Advisor for Master program in economics
- Member of Executive Committee.
- Member of College Social Sciences Grant Research Fund Committee
- Member of Graduate Program Committee
- Member of M.A. Admission/Policy Committee

2014-2015 school year:

- Chair of Promotion and Tenure Committee
- Chair of Faculty Evaluation Committee
- Member of Executive Committee
- Member of Chair Search Committee

2013-2014 school year:

- Member of Executive Committee
- Member of Faculty Evaluation Committee
- Member of Promotion and Tenure Committee

★ The following services were done at University of North Carolina at Charlotte from July 1998 to June 2013:

- Member of the Department Diversity Liaisons of College of Liberal Arts and Science (CLAS), 2012 – 2013
- Alternative Member of College Council, 2010 - 2013
- Member of Mathematical Finance Committee, 2011 - 2013
- Chair of The Colloquium Committee, 1999 - 2010
- Chair of the Library Committee, 1999 – 2010
- Member of Graduate Recruiting Committee, 1999 – 2009
- Member of P&T Committee, 2007 - 2008, 2010 - 2011.
- Member of Advisor Committee, 2000 - 2002
- Member of College Council of CLAS, 2004 - 2007
- Member of Re-assignment Duty Committee of CLAS, 2004 - 2006