

# Tae Hwy Lee

## CONTACT

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## EDUCATION

- Ph.D. in Economics, University of California, San Diego, June 1990  
Thesis Title: *Essays on Multicointegration and Nonlinearity*  
Thesis Committee: [Sir Clive W.J. Granger](#), [Halbert White Jr.](#), [Valerie Ramey](#)
- Bachelor in Economics, February 1985, Seoul National University, Korea

## EMPLOYMENT

- July 1, 2004 - present: Professor, Department of Economics  
University of California, Riverside
- July 1, 2005 - June 30, 2006: Visiting Professor of Economics (on payroll/benefits)  
California Institute of Technology
- July 1, 2000 - June 30, 2004: Associate Professor, Department of Economics  
University of California, Riverside
- August 1996 - February 1998: Associate Professor, Department of Economics  
Dongguk University, Seoul, Korea
- July 1, 1995 - June 30, 2000: Assistant Professor, Department of Economics  
University of California, Riverside
- August 1, 1990 - May 30, 1995: Assistant Professor, Department of Economics  
Louisiana State University

## VISITING ACADEMIC POSITIONS

- Guanghua School of Management and Center for Statistical Science, Peking University, Beijing, China. Visiting Professor of Economics, July 2014
- Wang Institute of Studies in Economics (WISE), Xiamen University, Xiamen, China  
Visiting Professor of Economics, June-July 2014

- University of California, Irvine, Department of Economics, Irvine, CA, USA  
Visiting Professor of Economics, September-December 2013
- University of Southern California, Department of Economics, Los Angeles, CA, USA  
Visiting Professor of Economics, August-December 2013
- University of California, San Diego, Department of Economics, La Jolla, CA, USA  
Visiting Professor of Economics, January-March 2008
- University of Cambridge, Judge Business School, Cambridge, UK  
Visiting Professor of Economics, Cambridge Endowment for Research in Finance, June-July 2007
- Wang Institute of Studies in Economics (WISE), Xiamen University, Xiamen, China  
Visiting Professor of Economics, July 2006
- Bilgi University, Department of Economics, Istanbul, Turkey  
Visiting Professor of Economics, December 2005
- Bilgi University, Department of Economics, Istanbul, Turkey  
Visiting Associate Professor of Economics, March 2004
- City University of Hong Kong, Department of Economics and Finance, Hong Kong, China  
Visiting Associate Professor of Economics, March 2001
- U.S. Bureau of Labor Statistics, Office of Research and Statistics, Washington D.C., USA  
Senior Research Fellow, Summer 1995, Summer 1996, December 1996.

## AWARDS, HONORS, AND FELLOWSHIPS

- [2007] *The Bank of Korea Research Award*. August 2007. Award about \$8100 in KRW from the Institute of Monetary Economic Research at the Bank of Korea. \$2000 donated to the Korean-American Economic Association (KAEA).
- [2006] *Tjalling C. Koopmans Econometric Theory Prize*. The Prize was established as a memorial to Tjalling C. Koopmans, the 1975 Nobel Laureate in Economic Science. Awarded to the paper co-authored with Yongmiao Hong, “Diagnostic Checking for Adequacy of Nonlinear Time Series Models”, *Econometric Theory* 19(6): 1065-1121. Announcement (August 2006) published in *Econometric Theory* 22(4): 763-764. [[PDF](#)]
- [1998] *Faculty Fellowship and Faculty Development Awards*. 1998-1999, Regents of University of California. Award \$3000.
- [1997] *Korea Sanhak Foundation Award*. Award about \$8100 in KRW.

- [1995] *NSF/ASA/BLS Senior Research Fellowship*. 1995-1996. The fellowship included a research fund of about \$45,000 from the NSF to support the visit at U.S. Bureau of Labor Statistics, Washington D.C.

## AREAS OF RESEARCH

Econometrics, Time Series, Financial Econometrics, Forecasting, Econometric Modeling, Financial Risk Analysis, Macro-econometrics

## GOOGLE SCHOLAR CITATION INDICES

- <http://scholar.google.com/citations?user=gaHXhcwAAAAJ&hl=en>

## EDITORIAL ACTIVITY

- Associate Editor, *Studies in Nonlinear Dynamics and Econometrics* (2007- )
- Editorial Board, *Econometrics* (2012-)
- Guest Co-editor, *Advances in Econometrics*, Volume 36 (to be published in early 2016).

## INVITED LECTURES AND ADDRESSES

- [2014] Summer School of Econometrics and Statistics, Dongbei University of Finance and Economics, Lectures on “Recent Advances in Time Series Forecasting”, July 11-18, 2014 (audience: graduate students and junior professors from all over China)
- [2014] Wang Institute of Studies in Economics (WISE) and School of Economics, Xiamen University, Lectures on “Topics in Applied Time Series Econometrics and Financial Econometrics”, June 30-July 10, 2014 (audience: graduate students)
- [2014] Wang Institute of Studies in Economics (WISE) and School of Economics, Xiamen University, Lecture on “Loss Functions in Econometric Modeling”, July 4, 2014 (audience: International Undergraduate Experimental Class at WISE)
- [2010] The 46th Werner Sichel Lecture on Advances in Economic Forecasting. W.E. Upjohn Institute for Employment Research and Western Michigan University, “Combining Forecasts with Many Predictors”, April 7, 2010 (audience: public, undergraduate students, graduate students, and faculty)
- [2007] Bank of Korea, Institute of Monetary Economic Research, “Forecasting Output Growth and Inflation: How to Use Information in the Yield Curve”, August 2007 (audience: research economists and policy makers)

- [2006] Summer School, WISE Institute of Studies in Economics, Xiamen University, “Lectures on Nonstationary Time Series Models”, July 15-20, 2006, sponsored by Ministry of Education of China (audience: graduate students and junior professors from all over China)
- [2005] Bilgi University, Istanbul, “Lectures on Time Series Econometrics”, December 19-20, 2005 (audience: graduate students and faculty)
- [2004] Bilgi University, Istanbul, “Lectures on Financial Econometrics”, March 22-27, 2004 (audience: graduate students and faculty)

## **TEACHING**

### ***University of California, Riverside (1995 - present):***

- *Undergraduate Courses:* Introduction to Macroeconomics (Econ002), Statistics for Economics (Econ101), Introductory Econometrics I (Econ107), Introductory Econometrics II (Econ108), Forecasting in Business and Economics (Econ112)
- *Core Graduate Courses:* Mathematics for Economists (Econ206), Econometric Methods I (Econ205a), Econometric Methods II (Econ205b), Econometric Methods III (Econ205c)
- *Advanced Graduate Courses:* Advanced Econometrics I (Topics in Econometric Theory) (Econ285e), Advanced Econometrics II (Advanced Time Series Topics) (Econ285f)

### ***California Institute of Technology (2005-2006):***

- *Undergraduate Course:* Econometrics (EC122, Winter 2006)
- *Core Graduate Course:* Econometrics III (SS222c, Spring 2006)
- *Advanced Graduate Course:* Advanced Topics in Econometric Theory III (SS223c, Spring 2006)

### ***Dongguk University, Korea (1996-1997):***

- *Undergraduate Course:* Statistics, Econometrics
- *Graduate Course:* Econometrics

### ***Louisiana State University (1990-1995):***

- *Undergraduate Course:* Econometrics, Introduction to Macroeconomics
- *Graduate Course:* Econometrics, Time Series Econometrics

## RESEARCH PAPERS

[pdf] links to WP final versions; [PDF] links to published versions

### A. Journal Articles

1. [1989] Clive W.J. Granger and Tae-Hwy Lee, "Investigation of Production, Sales and Inventory Relationships Using Multicointegration and Nonsymmetric Error Correction Models", *Journal of Applied Econometrics* 4: S145-S159. December 1989. [PDF]
2. [1992] Tae-Hwy Lee, "Stock-Flow Relationships for US Housing Construction", *Oxford Bulletin of Economics and Statistics* 54(3): 419-430. August 1992. [PDF]
3. [1992] Tae-Hwy Lee, "On the Predictive Power of the Spread between Spot and Forward Exchange Rates for Volatility", *Korean Economic Review* 8: 99-115. Summer 1992.
4. [1993] Tae-Hwy Lee, Halbert White, and Clive W.J. Granger, "Testing for Neglected Nonlinearity in Time Series Models: A Comparison of Neural Network Methods and Alternative Tests", *Journal of Econometrics* 56: 269-290. April 1993. [PDF]

4-A. Reprinted (2001) in *Essays in Econometrics: Collected Paper of Clive W.J. Granger*, Volumes I: Spectral Analysis, Seasonality, Nonlinearity, Methodology, and Forecasting, edited by Eric Ghysels, Norman R. Swanson, and Mark W. Watson, Chapter 8, pp. 208-229, Cambridge University Press, Econometric Society Monograph Series No. 32.

5. [1994] Faik Koray and Tae-Hwy Lee, "Uncertainty in Sales and Inventory Behavior in the US Trade Sectors", *Canadian Journal of Economics* 27(1): 129-142. February 1994. [PDF]
  6. [1994] Tae-Hwy Lee, "Spread and Volatility in Spot and Forward Exchange Rates", *Journal of International Money and Finance* 13: 375-383. June 1994. [PDF]
  7. [1995] Tae-Hwy Lee, "Disequilibrium and Uncertainty in Cointegrated Systems", *Economics Letters* 49(2): 157-161. August 1995. [PDF]
  8. [1996] Jesús Gonzalo and Tae-Hwy Lee, "Relative Power of the  $t$  Type Tests for Stationary and Unit Root Processes", *Journal of Time Series Analysis* 17(1): 37-47. January 1996. [PDF]
  9. [1996] G. Geoffrey Booth, Tae-Hwy Lee, and Yiuman Tse, "International Linkages in Nikkei Stock Index Futures Markets", *Pacific-Basin Finance Journal* 4: 59-76. April 1996. [PDF]
- 9-A. Reprinted (1998) in *Volatility: New Techniques for Pricing Derivatives and Managing Financial Portfolios*, Chapter 18, 285-294, edited by Robert Jarrow, Risk Publications, London.

10. [1996] Faik Koray, Tae-Hwy Lee, and Theodore Palivos, "Stochastic Trends and Fluctuations in National Income, Wages, and Profits", *Southern Economic Journal* 62(4): 873-888. April 1996. [PDF]

11. [1996] Tae-Hwy Lee and Yiuman Tse, “Cointegration Tests with Conditional Heteroskedasticity”, *Journal of Econometrics* 73(2): 401-410. August 1996. [[PDF](#)]
12. [1996] Yiuman Tse, Tae-Hwy Lee, and G. Geoffrey Booth, “The International Transmission of Information in Eurodollar Futures Markets: A Continuously Trading Market Hypothesis”, *Journal of International Money and Finance* 15: 447-465. August 1996. [[PDF](#)]
13. [1996] Tae-Hwy Lee, “Stock Adjustment for Multicointegrated Series”, *Empirical Economics* 21(4): 633-639. 1996. [[PDF](#)]
14. [1998] Jesús Gonzalo and Tae-Hwy Lee, “Pitfalls in Testing for Long Run Relationships”, *Journal of Econometrics* 86(1): 129-154. September 1998. [[PDF](#)]
15. [1999] Clive W.J. Granger and Tae-Hwy Lee, “The Effect of Aggregation on Nonlinearity”, *Econometric Reviews* 18(3): 259-269. August 1999. [[PDF](#)]
16. [1999] Tae-Hwy Lee, “Excess Holding Yields and Risk Premia in the Term Structure of Interest Rates”, *Journal of Quantitative Economics* 15(1): 145-153. 1999.
17. [2000] Jesús Gonzalo and Tae-Hwy Lee, “On the Robustness of Cointegration Tests When Series Are Fractionally Integrated”, *Journal of Applied Statistics* 27(7): 821-827. 2000. [[pdf](#)] [[PDF](#)]
18. [2000] Tae-Hwy Lee, “Neural Network Test and Nonparametric Kernel Test for Neglected Nonlinearity in Regression Models”, *Studies in Nonlinear Dynamics and Econometrics* 4(4): 169-182. 2000. [[pdf](#)] [[PDF](#)]
19. [2001] Tae-Hwy Lee and Aman Ullah, “Nonparametric Bootstrap Tests for Neglected Nonlinearity in Time Series Regression Models”, *Journal of Nonparametric Statistics* 13: 425-451. 2001. [[pdf](#)] [[PDF](#)]
20. [2002] Tae-Hwy Lee and Burak Saltoglu, “Assessing the Risk Forecasts for Japanese Stock Market”, *Japan and the World Economy* 14(1): 63-85. 2002. [[pdf](#)] [[PDF](#)]
21. [2003] Yongmiao Hong and Tae-Hwy Lee, “Inference on Predictability of Foreign Exchange Rates via Generalized Spectrum and Nonlinear Time Series Models”, *Review of Economics and Statistics* 85(4): 1048-1062. November 2003. [[pdf](#)] [[link](#)] [[PDF](#)]
- 21-A. Erratum (2004): There was a publisher’s error in the title of the paper, which was corrected in “Erratum”, *Review of Economics and Statistics*, Vol. 86, No. 3: 840-840. August 2004. [[erratum](#)] [[link](#)]
22. [2003] Yongmiao Hong and Tae-Hwy Lee, “Diagnostic Checking for Adequacy of Nonlinear Time Series Models”, *Econometric Theory* 19(6): 1065-1121. December 2003. [[link](#)] [[PDF](#)]

22-A. Awarded (in August 2006): “The 2003-2005 Tjalling C. Koopmans Econometric Theory Prize” (for the three year period 2003-2005 inclusive), with Yongmiao Hong. Announcement published in *Econometric Theory*, Vol. 22, No. 4, pages 763-764. August 2006. [[pdf](#)] [[PDF](#)]

23. [2004] Gloria González-Rivera, Tae-Hwy Lee, and Santosh Mishra, “Forecasting Volatility: A Reality Check Based on Option Pricing, Utility Function, Value-at-Risk, and Predictive Likelihood”, *International Journal of Forecasting* 20(4): 629-645. October-December 2004. [[pdf](#)] [[PDF](#)]
24. [2006] Yong Bao, Tae-Hwy Lee, and Burak Saltoglu, “Evaluating Predictive Performance of Value-at-Risk Models in Emerging Markets: A Reality Check”, *Journal of Forecasting* 25(2): 101-128. March 2006. [[pdf](#)] [[PDF](#)]
25. [2006] Tae-Hwy Lee and Yang Yang, “Bagging Binary and Quantile Predictors for Time Series”, *Journal of Econometrics* 135(1): 465-497. November-December 2006. [[pdf](#)] [[PDF](#)]
26. [2007] Yong Bao, Tae-Hwy Lee, and Burak Saltoglu, “Comparing Density Forecast Models”, *Journal of Forecasting* 26(3): 203-225. April 2007. [[pdf](#)] [[PDF](#)]
- 26-A. The previous version (2004) of this paper has been circulated with the title, “A Test for Density Forecast Comparison with Applications to Risk Management” [[pdf](#)]
27. [2007] Gloria González-Rivera, Tae-Hwy Lee, and Emre Yoldas, “Optimality of the RiskMetrics VaR Model”, *Financial Research Letters* 4(3): 137-145. September 2007. [[pdf](#)] [[PDF](#)]
28. [2008] Jesús Gonzalo, Tae-Hwy Lee, and Weiping Yang, “Permanent and Transitory Components of GDP and Stock Prices: Further Analysis”, *Macroeconomics and Finance in Emerging Market Economies* 1(1): 105-120. March 2008. [[pdf](#)] [[PDF](#)]
29. [2008] Gloria González-Rivera, Tae-Hwy Lee, and Santosh Mishra, “Jumps in Cross-Sectional Rank and Expected Returns: A Mixture Model”, *Journal of Applied Econometrics* 23(5): 585-606. August 2008. [[pdf](#)] [[Supplemental Appendix](#)] [[PDF](#)]
30. [2009] Tae-Hwy Lee and Xiangdong Long, “Copula-based Multivariate GARCH Models with Uncorrelated Dependent Errors”, *Journal of Econometrics* 150: 207-218. June 2009. [[pdf](#)] [[PDF](#)]
31. [2010] Huiyu Huang and Tae-Hwy Lee, “To Combine Forecasts or to Combine Information?” *Econometric Reviews* 29(5): 534-570. September 2010. [[pdf](#)] [[Supplemental Appendix](#)] [[PDF](#)]
32. [2013] Tae-Hwy Lee, Zhou Xi, and Ru Zhang, “Testing for Neglected Nonlinearity Using Artificial Neural Networks with Many Randomized Hidden Unit Activations”, *Journal of Time Series Econometrics* 5(1): 61-86. May 2013. [[link](#)] [[pdf](#)] [[PDF](#)]
33. [2013] Huiyu Huang and Tae-Hwy Lee, “Forecasting Value-at-Risk Using High Frequency Information”, *Econometrics* 1(1): 127-140. June 2013. [[link](#)] [[pdf](#)] [[PDF](#)]

34. [2013] Huiyu Huang and Tae-Hwy Lee, “Forecasting Realized Volatility Using Subsample Averaging”, *Open Journal of Statistics* 3(5): 379-383. October 2013. [[link](#)] [[pdf](#)] [[PDF](#)]
35. [2014] Tae-Hwy Lee, Yundong Tu, and Aman Ullah, “Nonparametric and Semiparametric Regressions Subject to Monotonicity Constraints: Estimation and Forecasting”, *Journal of Econometrics* 182(1): 196-210. September 2014. [[pdf](#)] [[PDF](#)]
36. [2014] Yiyao Wang and Tae-Hwy Lee, “Asymmetric Loss in the Greenbook and the Survey of Professional Forecasters”, *International Journal of Forecasting* 30(2): 235-245. 2014. [[pdf](#)] [[supplemental appendix](#)] [[PDF](#)]
37. [2014] Tae-Hwy Lee and with Weiping Yang, “Granger-Causality in Quantiles between Financial Markets: Using Copula Approach”, *International Review of Financial Analysis* 33: 70-78. May 2014. [[pdf](#)] [[PDF](#)]
38. [2014] Tae-Hwy Lee, Yundong Tu, and Aman Ullah, “Forecasting Equity Premium: Global Historical Average versus Local Historical Average and Constraints”, forthcoming (accepted on 8/8/2014), *Journal of Business and Economic Statistics*. [[pdf](#)]

## B. Articles Published in Books

39. [1990] Clive W.J. Granger and Tae-Hwy Lee, “Multicointegration”, *Advances in Econometrics: Cointegration, Spurious Regression, and Unit Roots*, edited by Thomas B. Fomby and George F. Rhodes, Jr., Vol. 8, pages 71-84, JAI Press Inc. 1990.  
  
39-A. Reprinted (1991) in *Long-run Economic Relationships: Readings in Cointegration*, Chapter 9, pages 179-190, edited by Robert F. Engle and Clive W. J. Granger, Oxford University Press. [[PDF](#)]
40. [1999] Tae-Hwy Lee and Stuart Scott, “Investigating Inflation Transmission by Stages of Processing”, in *Cointegration, Causality, and Forecasting: A Festschrift in Honor of Clive W.J. Granger*, edited by Robert Engle and Halbert White, Chapter 12, pages 283-300. Oxford University Press, Oxford, U.K. August 1999. [[PDF](#)]
41. [2003] Tae-Hwy Lee and Aman Ullah, “Nonparametric Bootstrap Specification Testing in Econometric Models”, in *Computer Aided Econometrics*, edited by David Giles, Chapter 15, pp. 451-477. Marcel Dekker, New York. 2003. [[pdf](#)] [[contents of the book](#)]
42. [2006] Yong Bao and Tae-Hwy Lee, “Asymmetric Predictive Abilities of Nonlinear Models for Stock Returns: Evidence from Density Forecast Comparison”, *Advances in Econometrics*, Volume 20, Part B, pages 41-62, January 2006. [[pdf](#)]
43. [2008] Tae-Hwy Lee and Yang Yang, “Bagging Binary and Quantile Predictors for Time Series: Further Issues”, *Forecasting in Presence of Structural Breaks and Model Uncertainty*, edited by



David E. Rapach and Mark E. Wohar, Emerald Publishers. Chapter 13, pages 477-534. May 2008. [\[pdf\]](#)

44. [2008] Tae-Hwy Lee, “Loss Functions”, *International Encyclopedia of the Social Sciences*, Editor: William A. Darity, Jr., 2nd edition. pp. 495-502. Detroit: Macmillan Thomson Gale Publishers. 2008. [\[pdf\]](#) [\[PDF\]](#)
45. [2009] Gloria González-Rivera and Tae-Hwy Lee, “Nonlinear Time Series in Financial Forecasting”, a chapter in Finance and Econometrics Section (Section editor: Bruce Mizraeh), *Encyclopedia of Complexity and Systems Science*, edited by Robert A. Meyers, Springer Science. Pages 3475-3504. 2009. [\[pdf\]](#) [\[link\]](#) [\[table of contents\]](#) [\[PDF\]](#)
46. [2011] Tae-Hwy Lee, “Combining Forecasts with Many Predictors”, *Advances in Economic Forecasting*, Higgins, M.L. (ed.), Werner Sichel Lecture Series, W.E. Upjohn Institute. Chapter 7, pages 149-172. 2011. [\[pdf\]](#) [\[PDF\]](#)
47. [2012] Eric Hillebrand and Tae-Hwy Lee, “Stein-Rule Estimation and Generalized Shrinkage Methods for Forecasting Using Many Predictors”, *Advances in Econometrics*, Volume 30, Chapter 6, pages 171-196, Millimet, D. and Terrell, D. (ed.), Emerald Publishers. December 2012. [\[pdf\]](#) [\[PDF\]](#)
48. [2012] Tae-Hwy Lee and Weiping Yang, “Money-Income Granger-Causality in Quantiles”, *Advances in Econometrics*, Volume 30, Chapter 12, pages 383-407, Millimet, D. and Terrell, D. (ed.), Emerald Publishers. December 2012. [\[pdf\]](#)
49. [2013] Tae-Hwy Lee, Zhou Xi, and Ru Zhang, “Testing for Neglected Nonlinearity Using Regularized Artificial Neural Networks”, *Recent Advances in Estimating Nonlinear Models: With Applications in Economics and Finance*, Chapter 3, pages 33-57, 2013. Jun Ma and Mark E. Wohar (ed.), Springer Publishers. September 2013. [\[pdf\]](#) [\[PDF\]](#)
50. [2014] Eric Hillebrand, Tae-Hwy Lee, and Marcelo Medeiros, “Bagging Constrained Equity Premium Predictors”, *Essays in Nonlinear Time Series Econometrics, Festschrift in Honor of Timo Teräsvirta*, edited by Niels Haldrup, Mika Meitz, and Pentti Saikkonen. Oxford University Press. Chapter 14, pages 330-356. 2014. [\[pdf\]](#) [\[contents of the festschrift\]](#) [\[PDF\]](#)

The previous versions have been circulated under the title “Let’s Do It Again: Bagging Equity Premium Predictors”.

### C. Papers Published in Conference Proceedings

51. [1996] Jesús Gonzalo and Tae-Hwy Lee, “Some Pitfalls on Testing for Cointegration”, *JSM Proceedings for Business and Economic Statistics (American Statistical Association)*, pages 8-17, 1996. (Invited Session)

52. [1996] Tae-Hwy Lee and Stuart Scott, “Transmission of Producers' Prices through Stages of Processing”, *JSM Proceedings for Survey Research Methods (American Statistical Association)*, pages 110-119, 1996. (Invited Session)
53. [2001] Giampiero Gallo, Yongmiao Hong, and Tae-Hwy Lee, “Modeling the Impact of Overnight Surprises on Intra-daily Stock Returns”, *JSM Proceedings for Business and Economic Statistics (American Statistical Association)*, 2001. (Invited Session) [[pdf](#)]
54. [2009] Eric Hillebrand, Tae-Hwy Lee, and Marcelo Medeiros, “Bagging Constrained Forecasts with Application to Forecasting Equity Premium”, *JSM Proceedings for Business and Economic Statistics (American Statistical Association)*, 2009. (Invited Session) [[pdf](#)]

#### **D. Papers Completed (submitted)**

55. [2014] Eric Hillebrand, Huiyu Huang, Tae-Hwy Lee, and Canlin Li, “Using the Yield Curve in Forecasting Output Growth and Inflation”. Revision requested and under revision for ... [[pdf](#)]
56. [2014] Tae-Hwy Lee and Yiyao Wang, “Finding the Best SPF Percentiles Closest to Greenbook”, with Yiyao Wang. [[pdf](#)] Submitted to ...
57. [2014] Yundong Tu and Tae-Hwy Lee, “Forecasting Using Supervised Factor Models”. [[pdf](#)] Submitted to ...
58. [2014] Yan Ge and Tae-Hwy Lee, “Equal Predictive Accuracy and Model Combination Using Encompassing Test for Nested Quantile Models”. Submitted to ... [[pdf](#)]
59. [2014] Tae-Hwy Lee, Zhou Xi and Ru Zhang, “Density and Risk Forecast of Financial Returns Using Decomposition and Maximum Entropy”. Submitted to ... [[pdf](#)]

#### **E. Papers in Progress**

1. “Using Extreme Learning Machines for Out-of-Sample Prediction: Applications to Forecasting Equity Premium”, with Zhou Xi and Ru Zhang. [[pdf](#)]
2. “Mallow Model Averaging in the Presence of Multicollinearity”, with Ru Zhang. [[pdf](#)]
3. “Dynamics of Inflation Rate: Comparison of New Keynesian Models via Simulated Density”, with Yongseung Jung and Weiping Yang. [[pdf](#)]
4. “Comparison of New Open Economy Macroeconomic Models for Exchange Rate Fluctuations”, with Yongseung Jung and Weiping Yang. [[pdf](#)]
5. “Model Selection for Panel Data Models via Cross-Validation and Generalized Information Criteria”

6. “Forecasting Stock Market Returns Using High-Dimensional Time Series Models: The Sum of the Parts Is More than the Whole”
7. “Granger-Causality in Quantiles between Oil and US Economy”
8. “Pairs Trading Strategy for Combining Forecasts”.

## PROFESSIONAL ACTIVITY

### A. Conferences Organized

- All UC Econometrics Conference, Riverside, CA, September 25-26, 2009. [Renamed as “California Econometrics Conference (CEC)”. Held at Berkeley (2008), Riverside (2009), Stanford (2010), USC/Caltech (2011), Davis (2012), UCLA (2013), Stanford GSB (2014).]
- [Info-Metrics and Nonparametric Inference](#), Riverside, CA, November 17, 2012.
- Advances in Econometrics V36 Conference in Honor of Aman Ullah, Riverside, CA, March 13-15, 2015.

### B. Conference Presentations

- International Society for Inventory Research, ASSA, Washington D.C., January 1991
- Korean Economic Association, Seoul, August 1992
- Southern Economic Association, New Orleans, November 1993
- Conference of Multivariate Time Series and Financial Econometrics, San Diego, April 1994
- Econometric Society, North American Winter Meetings, ASSA, Washington D.C., January 1995
- Econometric Society, 7<sup>th</sup> World Congress, Tokyo, August 1995
- American Statistical Association, Business and Economics Statistics Session, JSM, Chicago, August 1996
- American Statistical Association, Survey Research Method Session, JSM, Chicago, August 1996
- Korean Econometric Society, Seoul, November 1997
- American Economic Association, ASSA, Chicago, January 1998
- Econometric Society, North American Winter Meetings, ASSA, Boston, January 2000
- Econometric Society, the 8<sup>th</sup> World Congress, Seattle, August 2000
- Korean-American Economic Association, Seoul, June 2000
- Greater China and WTO, Hong Kong, March 2001
- Econometric Society, North American Summer Meeting, Maryland, June 2001
- Western Economic Association, San Francisco, July 2001
- Econometric Society, Far Eastern Meeting, Kobe, July 2001

- American Statistical Association, Business and Economic Statistics Session, JSM, Atlanta, August 2001
- Econometric Society, European Meeting, Lausanne, August 2001
- Econometric Society, North American Winter Meetings, ASSA, Atlanta, January 2002 (presenter and discussant)
- American Statistical Association, Business and Economic Statistics Session, JSM, New York, August 2002 (organized an invited session)
- Korean-American Economic Association (KAEA), ASSA, Washington, DC, January 2003 (Program Committee)
- Econometric Society, European Meeting, Stockholm, August 2003
- Midwest Econometrics Group (MEG2003), Columbia, October 2003
- Econometric Society, North American Winter Meetings, ASSA, San Diego, January 2004
- Forecasting Conference in Honor of Professor Clive Granger, San Diego, January 2004
- BK21 International Econometrics Conference, SKKU, Seoul, June 2004
- Econometric Society, Far Eastern Meeting, Seoul, July 2004
- NSF/NBER Time Series Conference, SMU, Dallas, September 2004
- Canadian Econometrics Study Group (CESG2004) Conference, Toronto, September 2004
- Symposium on Econometric Theory and Applications (SETA2005), Taipei, May 2005
- Econometric Society, the 8th World Congress, London, August 2005
- Workshop on Financial Risk and Time Series Analysis, Munich, September 2005
- NSF/NBER Time Series Conference, Heidelberg, September 2005
- Applied Marco Workshop, Duke University, November 2005
- European Conferences of the Econometrics Community (EC2 ) on Econometrics of Financial and Insurance Risks, Istanbul, Turkey, December 2005
- Econometric Society, North American Winter Meetings, ASSA, Boston, January 2006
- Symposium on Econometric Theory and Applications (SETA2006), Xiamen University, WISE Institute of Studies in Economics, April 2006
- Econometric Society, North American Summer Meeting, Minneapolis, June 2006
- Econometric Society, Far Eastern Meeting, Beijing, July 2006
- Forecasting Conference, St. Louis, August 2006
- Midwest Econometrics Group (MEG2006), Cincinnati, October 2006
- Symposium on Econometric Theory and Applications (SETA2007), Hong Kong University of Science and Technology, April 2007
- The 4th Bank of Korea/KAEA Conference, Seoul, July 2007
- The 5th Korea Development Institute/KAEA Conference, Seoul, July 2007
- North American Winter Meetings of Econometric Society, New Orleans, January 2008
- Society for Nonlinear Dynamics & Econometrics, San Francisco, April 2008 (organized an invited session; presented a paper)
- Stanford Institute for Theoretical Economics (SITE 2008), Palo Alto, July 24-26, 2008.
- Society of Financial Econometrics (SoFiE), Geneva, June 10-12, 2009.
- Joint Statistical Meetings (JSM 2009), American Statistical Association, Washington DC, August 1-6, 2009 (organized an invited session; presented a paper)
- NSF/NBER Time Series Conference, Davis, September 2009
- KEA/KAEA, Seoul, August 2010

- California Econometrics Conference, Stanford University, September 2010
- Midwest Econometrics Group MEG 2010, Washington University, St. Louis, October 2010
- Conference in Honor of Halbert White, UCSD, May 2011
- 30<sup>th</sup> Anniversary Conference of Advances in Econometrics, LSU, March 2012
- Korean Econometric Society, SKKU, June 2012 (keynote)
- Korea Development Institute (KDI), Annual Conference, June 2012
- WEAI/KEA/BOK Conference, San Francisco, July 2012
- Summer Econometrics Workshop, Seoul National University, July 2012
- Korea Development Institute (KDI), Annual Conference, August 2013
- Center for Applied Financial Economics (CAFÉ), USC Workshop on Recent Development in Forecasting Techniques for Macro and Finance, Los Angeles, November 2013
- Econometric Society, Chinese Meeting, Xiamen, June 2014
- The 4th International Symposium on Econometric Analysis and Economic Forecasting, Dalian, July 2014
- NSF/NBER Time Series Conference, Federal Reserve Bank of St. Louis, September 2014

### C. Refereeing (alphabetical)

#### Journal Articles

Advances and Applications in Statistical Sciences  
 American Economic Review  
 American Economic Journal: Macroeconomics  
 Asia Pacific Management Review  
 Bernoulli  
 Biometrika  
 Canadian Journal of Economics  
 Computers and Mathematics with Applications  
 Computational Statistics and Data Analysis  
 Econometric Journal  
 Econometric Reviews  
 Econometric Theory  
 Economic Inquiry  
 Economic Modelling  
 Economics Letters  
 Empirical Economics  
 Energy Economics  
 Estudios Economicos  
 EURASIP Journal on Advances in Signal Processing  
 European Journal of Finance  
 European Journal of Operational Research  
 IEEE Transactions on Neural Networks  
 IEEE Transactions on Neural Networks and Learning Systems  
 Information Sciences  
 International Economic Journal  
 International Economic Review

International Journal of Forecasting  
International Review of Economics and Finance  
Japan and the World Economy  
Journal of the American Statistical Association  
Journal of Applied Economics  
Journal of Applied Econometrics  
Journal of Business and Economic Statistics  
Journal of Econometrics  
Journal of Economic Development  
Journal of Economic Dynamics and Control  
Journal of Economic Theory and Econometrics  
Journal of Empirical Finance  
Journal of Financial Econometrics  
Journal of Forecasting  
Journal of International Money and Finance  
Journal of International Financial Markets, Institutions and Money  
Journal of Macroeconomics  
Journal of Money, Credit, and Banking  
Journal of Multinational Finance  
Journal of Multivariate Analysis  
Journal of Nonparametric Statistics  
Journal of Policy Analysis and Management  
Journal of Quantitative Economics  
Journal of Risk  
Journal of the American Real Estate and Urban Economics Association  
KDI Journal of Economic Policy  
Korean Economic Review  
Macroeconomics and Finance in Emerging Market Economies  
Macroeconomic Dynamics  
Management Science  
Neural Computation  
Neural Computing and Applications  
Neural Network  
North American Journal of Economics and Finance  
Oxford Economic Papers  
Oxford Bulletin of Economics and Statistics  
Pacific Economic Review  
Physica A  
Progress in Applied Mathematics  
Quantitative Finance  
Review of Economics and Statistics  
Southern Economic Journal  
Statistics Sinica  
Studies in Nonlinear Dynamics and Econometrics

**Articles in Books**

Advances in Econometrics  
Festschrift in Honor of Professor Clive W.J. Granger  
Forecasting in Presence of Structural Breaks and Model Uncertainty

**Research Grant Proposals**

National Science Foundation  
Social Sciences and Humanities Research Council of Canada  
Research Grant Council of Hong Kong

**Book Reviews for Publishers**

Addison-Wesley  
McGraw-Hill-Irwin  
Routledge  
Taylor & Francis Group  
Wiley

**D. Invited Seminars (alphabetical)**

Bank of Korea, Seoul  
Bilgi University, Istanbul  
Board of Governors, Federal Reserve Board, Washington, D.C.  
Bureau of the Census, Washington, D.C.  
Bureau of Labor Statistics, Washington, D.C.  
City University of Hong Kong  
Dongguk University, Seoul  
Drexel University  
Duke University  
Ewha University, Seoul  
Federal Reserve Bank of St. Louis  
Federal Reserve Bank of San Francisco  
Indiana University, Bloomington  
Kansas State University  
Korea Institute for International Economic Policy, Seoul  
Korea Institute of Finance, Seoul  
Korean Bureau of Statistics, Seoul  
Korean Development Institute, Seoul  
Louisiana State University  
North Carolina State University  
Office of the Comptroller of the Currency, Washington D.C.  
Purdue University  
Rutgers University  
Suffolk University  
Tulane University  
University of British Columbia  
University of California, Davis  
University of California, Irvine

University of California, Los Angeles  
University of California, Riverside  
University of California, Riverside, Department of Statistics  
University of California, San Diego  
University of California, Santa Barbara  
University of California, Santa Cruz  
University of Cambridge  
University of Florida  
University of Kentucky  
University of Macedonia, Thessaloniki, Greece  
University of Notre Dame  
University of Pittsburgh  
University of Southern California  
University of Victoria, Canada  
Western Michigan University  
Yonsei University, Seoul

## E. Ph.D. Students

- Bai Huang, in progress, Economics, UCR (Co-chair)
- Yan Ge, in progress, Economics, UCR (Chair)
- Ru Zhang, December 2013, Economics, UCR (Co-chair)
- Zhou Xi, September 2013, Economics, UCR (Co-chair)
- Yundong Tu, June 2012, Economics, UCR (Co-chair)
- Huiyu Huang, June 2007, Economics, UCR (Chair)
- Xiangdong Long, June 2005, Economics, UCR (Co-Chair)
- Weiping Yang, October 2005, Economics, UCR (Chair)
- Yang Yang, December 2005, Economics, UCR (Chair)
- Yong Bao, June 2004, Economics, UCR (Co-Chair)
- Santosh Mishra, June 2003, Economics, UCR (Co-Chair)
- Yanpin Su, June 2014, Economics, UCR (member)
- Xuefeng Pan, in progress, Economics, UCR (member)
- Huansha Wang, May 2014, Economics, UCR (member)
- Jie Wei, June 2014, Economics, UCR (member)
- Yue Liu, August 2013, Statistics, UCR (member)
- Yingying Sun, June 2013, Economics, UCR (member)
- Yun Wang, June 2012, Economics, UCR (member)
- Tatev Ambartsoumian, December 2012, Statistics, UCR (member)
- Chuanlei Sun, December 2012, Economics, UCR (member)
- Bushi Wang, April 2011, Statistics, UCR (member)
- Deniz Baglan, 2010, Economics, UCR (member)
- Nan Shao, November 2010, Statistics, UCR (member)
- Meichi Huang, December 2009, Economics, UCR (member)
- Zhanpan Zhang, Statistics, UCR (member)
- Jifei Ban, Statistics, UCR (member)



- Emre Yoldas, December 2008, Economics, UCR (member)
- Weiqian Qian, August 2008, Economics, UCR (member)
- Scott Lesch, August 2007, Statistics, UCR (member)
- Xiao Huang, June 2005, Economics, UCR (member)
- Wei Sun, June 2005, Economics, UCR (member)
- Heather Tierney, June 2005, Economics, UCR (member)
- Li Ping, 2004, Statistics, UCR (member)
- Bernard Gress, 2004, Economics, UCR (member)
- Dustin Chambers, 2004, Economics, UCR (member)
- Daniel Henderson, 2003, Economics, UCR (member)
- Debasri Mukherjee, 2002, Economics, UCR (member)
- Fang Dong, 2001, Economics, UCR (member)
- Marc Mercurio, 2000, Economics, UCR (member)
- Colleen Burns, 2000, Statistics, UCR (member)
- Lance Teschmacher, 2000, Statistics, UCR (member)
- Vigfus Madsen, 2000, Economics, UCR (member)
- Paul R. Woodburne, 1999, Economics, UCR (member)
- Sherman Ho, 1998, Economics, UCR (member)
- Shahana Samiullah, 1997, Economics, UCR (member)
- Jaeho Choi, 1997, Economics, Dongguk University (member)
- Rong-Chang Wu, 1996, Economics, UCR (member)
- Omer Ozcicek, 1995, Economics, LSU (member)
- Yiuman Tse, 1994, Finance, LSU (member)
- Sok-Tae Kim, 1994, Finance, LSU (member)
- Jie-Haun Lee, 1993, Finance, LSU (member)
- Barun Kanjilal, 1992, Agricultural Economics, LSU (member)
- Parisun Chantanahom, 1991, Economics, LSU (member)
- Salil Sarkar, 1991, Finance, LSU (member)
- Jang Cheon Jin, 1991, Economics, LSU (member)

## **F. Consulting Services**

- Bates White LLC (independent contractor for econometrics, 2007)

## **G. Grants**

### **Research Grants**

- Academic Senate, University of California, Riverside, Research Funds, amount varying between \$1,000 - \$2,100, each year since 1995
- Spanish National Grant SEJ2007-63098 (Economics) with Jesús Gonzalo (UC3M), 2007
- Spanish National Grant ECO2010-19357 (Economics) with Jesús Gonzalo (UC3M), 2010
- Institute of Monetary and Economic Research of the Bank of Korea, Research Grant, about \$8,200, 2007
- California Institute of Technology, Research Fund, \$5,000, 2005-2006

- University of California, Riverside, Executive Vice Chancellor Research Funds, \$35,000, 2000-2003
- Regents of University of California, Faculty Fellowship and Faculty Development Awards, \$3,000, 1998-1999
- Korea Sanhak Foundation Award, Research Grant, about \$8,000, 1997-1998
- American Statistical Association/National Science Foundation/Bureau of Labor Statistics, Senior Research Fellowship, \$45,000, 1995-1996
- Research Council, Louisiana State University, Research Funds, \$6,000 each year from 1990 to 1995.

### **Instructional Grants**

- University of California, Riverside, Faculty Instructional Method Grant, 1999

### **Travel Grants**

- NSF/NBER Time Series Conference, St. Louis, September 2014
- Bank of Korea, July 2012
- NSF/NBER Time Series Conference, Davis, September 2009
- The Society of Financial Econometrics (SoFiE), Geneva, June 2009
- Stanford Institute for Theoretical Economics (SITE), Palo Alto, July 2008.
- Cambridge Endowment for Research in Finance, Judge Business School, University of Cambridge, UK, June-July 2007
- Korea Development Institute, July 2007
- The Third Symposium on Econometric Theory and Applications (SETA2007), Hong Kong University of Science and Technology, April 2007
- Workshop on Forecasting in Presence of Structural Breaks and Model Uncertainty, St. Louis, Saint Louis University Simon Center, August 2006
- The Second Symposium on Econometric Theory and Applications (SETA2006), Xiamen University, April 2006
- European Conferences of the Econometrics Community (EC2) on Econometrics of Financial and Insurance Risks, Istanbul, December 11-22, 2005
- Workshop on Financial Risk and Time Series Analysis (Munich) and NSF/NBER Time Series Conference (Heidelberg), September 18-25, 2005
- Econometric Society, the 9th World Congress (ESWC2005), London, August 18-25, 2005
- The First Symposium on Econometric Theory and Applications (SETA2005), Academia Sinica, Taipei, May 2005
- Canadian Econometrics Study Group (CESG2004) Conference, York University, Toronto, October 2004
- NSF/NBER Time Series Conference, Dallas, September 2004
- BK21 SKKU, Seoul, June 2004
- City University of Hong Kong, March 2001
- NSF/NBER Time Series Conference, Chicago, September 2000
- Econometric Society, the 8th World Congress, Seattle, August 2000
- Korean-American Economic Association, Seoul, June 2000
- NSF/NBER Time Series Conference, Boston, September 1998
- Korean Econometric Society, Seoul, November 1997

- Econometric Society, the 7th World Congress, Tokyo, August 1995

## **H. University Services**

### **Department**

- Convener, Econometrics Colloquia
- Core/Field Coordinator, Econometrics
- Chair, Ad hoc Committees for Merit Promotions
- Member, Ad hoc Committees for Merit Promotions
- Member, Ad hoc Committees for Promotions
- Chair, Econometrics Comprehensive Exam Committees
- Member, Econometrics Comprehensive Exam Committees
- Job Placement Director for Graduate Students
- Member, Graduate Affairs Committees
- Chair, Committee on Distinguished Visitors and Visiting Scholars
- Member, Planning and Advisory Committee
- Member, Faculty Recruiting Committee (labor economics)
- Member, Faculty Recruiting Committee (econometrics)
- Chair, Faculty Recruiting Committee (econometrics)
- Chair, Computer and Equipment Committee
- Member, Computer and Equipment Committee
- Member, Computer and Website Committee
- Chair, Library and Department Working Paper Committee
- Member and Affirmative Officer, Committee of Lecturer Appointment
- Member and Affirmative Officer, Committee of Visiting Assistant Professor Appointment

### **UCR Campus**

- Member, University Academic Senate, Committee on Research (CoR), 2014-
- Member, University Academic Senate, Committee on Education Policy (CEP), 2011-2013
- Member, University Academic Senate, Committee on Academic Computing and Informational Technology
- Member, Advisory Committee, University Statistical Consulting Collaboratory
- Member, University Ad hoc Committees for Tenure Promotions
- Member, University Ad hoc Committees for Merit Promotions
- Chair, University Ad hoc Committees for Tenure Promotions
- Member, University Academic Senate, Committee on Education Policy, Undergraduate Program Review Subcommittee, 2013

### **University of California System**

- Member, UC System Academic Senate Committee on Academic Computing and Informational Technology

## **I. Other Professional Services**

- The American Statistical Association, Business and Economic Statistics Section, Joint Statistical Meetings (JSM) Student Travel Award Committee 2010-2013 (member 2010-2012; chair 2012-2013).