Jun YU

Lee Kong Chian Professor of Economics and Finance
School of Economics and Lee Kong Chian School of Business
Singapore Management University
School of Economics Building #5055
90 Stamford Road
Singapore 178903
Telephone number: +65 6828-0858
Fax number: +65 6828-0833
Email: yujun@smu.edu.sg
Web: http://www.mysmu.edu/faculty/yujun/default.htm

Education

- Ph.D. (Economics), University of Western Ontario, 1998
- M.A. (Economics), University of Western Ontario, 1994
- B.Sc. (Mathematics), Wuhan University, 1990
- B.A. (Economics), Wuhan University, 1990

Past Regular Positions Held

- Lead PI, Centre for Research on the Economics of Ageing, 2014-2020
- Director, Sim Kee Boon Institute for Financial Economics, 2011-2013
- Co-Director, Centre for Financial Econometrics, Sim Kee Boon Institute for Financial Economics, 2010-2013
- Professor of Economics and Finance, Singapore Management University, 2011-2016
- Professor of Economics, School of Economics, Singapore Management University, 2009-2011
- Deputy Director (Academic), Sim Kee Boon Institute for Financial Economics, 2008-2010
- Deputy Director, Centre for Financial Econometrics, Sim Kee Boon Institute for Financial Economics, 2008-2009
- Associate Professor of Economics, Singapore Management University, 2004-2008
- Senior Lecturer, Department of Economics, University of Auckland (tenured), 2002-2003
- Lecturer, Department of Economics, University of Auckland, 1998-2001

Visiting Positions Held

- Visiting Professor Macquarie University, Australia, 2022
- Visiting Fellow, School of Economics and Finance, Queensland University of Technology, Australia, 2012
- Affiliated Researcher, Risk Management Institute, National University of Singapore, Singapore, 2008-2014
- Research Fellow, Centre for Applied Financial Economics, University of Southern California, 2012-present

- Research Fellow, Hong Kong Institute for Monetary Research, December 2010
- Visiting Scholar, Department of Finance, National Taiwan University, 2009
- Visiting Scholar, CREST, France, 2005
- Visiting Scholar, Hiroshima University, Japan, 2004
- Visiting Scholar, Cowles Foundation, Yale University, U.S.A., 2002
- Visiting Fellow, School of Finance and Economics, University of Technology, Sydney, Australia, 2002
- Visiting Fellow, Department of Economics, National University of Singapore, Singapore, 2001-2002

Awards

- Fellow, *Journal of Econometrics*, 2011
- Inaugural Fellow, *Society of Financial Econometrics (SoFiE)*, 2012
- Chang Jiang Scholar, Ministry of Education of China, 2017-2019
- Certificate for Highly Cited Research, *Journal of Asian Economics*, 2016
- Outstanding Referee, *Journal of Economic and Dynamic Control*, 2012
- Nominee, Teaching Excellence in Postgraduate Professional Programmes Award, Singapore Management University, 2021
- Lee Kuan Yew Fellow for Research Excellence, Singapore Management University, 2010
- Lee Kuan Yew Fellow for Research Excellence, Singapore Management University, 2005
- Research Excellence Award at the University of Auckland, 2002
- Marsden Award of the Royal Society of New Zealand, 2001
- The A R Bergstrom Prize in Econometrics, 1999
- T.M. Browns Ph.D. Thesis Prize at the University of Western Ontario, 1998
- Doctoral Fellowship of Social Sciences and Humanities Research Council of Canada (SSHRC), 1997
- Doctoral Scholarship of Natural Sciences and Engineering Research Council of Canada (NSERC), 1997
- Ontario Graduate Scholarship, 1997
- Sir Arthur Currie Memorial Scholarship at the University of Western Ontario, 1995
- Special University Scholarship at the University of Western Ontario, 1993-1998
- Graduate Tuition Scholarship at the University of Western Ontario, 1994-1998
- Undergraduate Fellowship, Wuhan University, 1990

Research Interests

Primary: Financial Econometrics, Econometric Theory, Empirical Asset Pricing
Secondary: Real Estate Economics and Finance, Empirical Macroeconomics

Google Citation Counts (as of July 02, 2023)

	All	Since 2018
Citations	9315	4505

h-index	37	26
10-index	76	58

Book Publication

1. HURN, S, MARTIN, V., PHILLIPS, P.C.B., YU, J., *'Financial Econometric Modeling',* **Oxford University Press,** 2020, 640 pages

Publications in Refereed Journals

2. LIU, Y., PHILLIPS, P.C.B., YU, J., 'A Panel Clustering Approach to Analysing Bubble Behaviour'. ***International Economic Review***, forthcoming

3. SHI, S., YU, J., 'Volatility Puzzle: Long Memory or Anti-persistency', ***Management Science,*** forthcoming

3. WANG, X., YU, J., 'Latent Local-to-unity Models'. ***Econometric Reviews***, forthcoming. http://dx.doi.org/10.1080/07474938.2023.2215034

4. PHILLIPS, P.C.B., YU, J., 'Information Loss in Volatility Measurement with Flat Price Trading'. ***Empirical Economics,*** 64, 2957-2999, https://doi.org/10.1007/s00181-022-02353-y

5. WANG, X., XIAO, W., YU, J., 'Asymptotic Properties of Least Squares Estimator in Local to Unity Processes with Fractional Gaussian Noises'. ***Advances in Econometrics:*** *Essays in Honor of Joon Park,* 2023, 45A, 73-95.

6. LI, Y., WANG, N., YU, J., 'Improved Marginal Likelihood Estimation via Power Posteriors and Importance Sampling', ***Journal of Econometrics,*** 2023, 234, 28-52. https://doi.org/10.1016/ .jeconom.2021.11.009

7. WANG, X., XIAO, W., YU, J., 'Modeling and Forecasting Realized Volatility with the Fractional Ornstein-Uhlenbeck Process', ***Journal of Econometrics,*** 2023, 232, 389-415. https://doi.org/10.1016/j.jeconom.2021.08.001

8. WANG, X., YU, J., 'Bubble Testing under Polynomial Trends'. ***Econometrics Journal,*** 2023, 26(1). 25-44.

9. LIU, X., LI, Y, YU, J., ZENG, T., 'A Posterior-Based Wald-Type Statistic for Hypothesis Testing', ***Journal of Econometrics,*** 2022, 230, 83-113.

10. LUI, Y., XIAO, W., and YU, J., 'The Grid Bootstrap for Continuous Time Models', ***Journal of Business & Economic Statistics,*** 2022, 40(3), 1390-1402.

11. QIU, Y., XIE, T., YU, J. ZHOU, Q., 'Forecasting Equity Index Volatility by Measuring the Linkage among Component Stocks', ***Journal of Financial Econometrics,*** 2022, 20(1), 160-186.

12. LUI, LUI, Y., XIAO, W., and YU, J., 'Mild-explosive and Local-to-mild-explosive Autoregressions with Serially Correlated Errors'. ***Oxford Bulletin of Economics and Statistics,*** 2021, 83(2), 518-539.

13. JIANG, L., WANG, X., YU, J., 'In-fill Asymptotic Theory for Structural Break Point in Autoregression'. ***Econometric Reviews,*** 2021, 40, 359-386.

14. CHENG, L., JIANG, L., PHANG, S.Y., YU, J., 'Housing equity and household consumption in retirement: Evidence from the Singapore Life Panel'. ***New Zealand Economic Papers,*** 2021, 55(1), 124-140.

15. TANAKA, K., XIAO, W., YU, J., 'Maximum Likelihood Estimation for the Fractional Vasicek Model', ***Econometrics,*** 2020, 8, 32, 1-28.

16. LI, Y., YU, J., ZENG, T., 'Deviance Information Criterion for Latent Variable Models and Missepecified Models'. ***Journal of Econometrics,*** 2020, 216(2), 450493.

17. TAO, Y., YU, J., 'Model Selection for Explosive Models', ***Advances in Econometrics:*** *Essays in Honor of Cheng Hsiao,* 2020, Vol 41, 73-103.

18. TAO, Y., PHILLIPS, P.C.B., YU, J., 'Random Coefficient Continuous Systems: Testing for Unstable and Explosive Behaviour', ***Journal of Econometrics,*** 2019, 208-237.

19. XIAO, W., YU, J., 'Asymptotic Theory for Estimating the Drift Parameters in the Fractional Vasicek Model', ***Econometric Theory,*** 2019, 38, 198-231.

20. XIAO, W., YU, J., 'Asymptotic Theory for Rough Fractional Vasicek Models', ***Economics Letters,*** 2019, 177, 26-29.

21. LI, Y., YU, J., 'A New Bayesian Unit Root Test in Stochastic Volatility Models', ***Annals of Economics and Finance,*** 2019, 20, 103-122.

22. PREVE, D., ERIKSSON, A, YU, J., 'Forecasting Realized Volatility Using a Nonnegative Semiparametric Time Series Model', ***Journal of Risk and Financial Management,*** *2019,* 12, 139, 1-23.

23. LI, Y., YU, J., ZENG, T., 'Specification Tests based on MCMC Output'. ***Journal of Econometrics,*** 2018, 207, 237-260.

24. JIANG, L., WANG, X., YU, J., 'New Distribution Theory for the Estimation of Structural Break Point in Mean'. ***Journal of Econometrics,*** 2018, 205, 156-176.

25. PHILLIPS, P.C.B., CHEN, Y., YU, J., 'Limit Theory for Continuous Time Systems with Mildly Explosive Regression', ***Journal of Econometrics,*** 2017, 201, 400-416.

26. FULOP, A., YU, J., 'Bayesian Analysis of Bubbles in Asset Prices'. ***Econometrics,*** 2017, 5(4), 47.

27. WANG, X., YU, J., 'Double Asymptotics for Explosive Continuous Time Models', ***Journal of Econometrics,*** 2016, 193, 35-53.

28. LI, Y, LIU, X, YU, J., 'A Bayesian Chi-Squared Test for Hypothesis Testing', ***Journal of Econometrics,*** 2015, 189, 54-69.

29. PHILLIPS, P.C.B., SHI, S., YU, J., 'Testing Multiple Bubbles: Historical Episodes of Exuberance and Collapse in the S&P 500', ***International Economic Review,*** 2015,

56(4), 1043-1078.

30. PHILLIPS, P.C.B., SHI, S., YU, J., 'Testing Multiple Bubbles: Limit Theory of Real Time Detectors', ***International Economic Review,*** 2015, 56(4), 1079-1134.

31. PHILLIPS, P.C.B., SHI, S., YU, J., 'Supplement to Two Papers on Multiple Bubbles', ***International Economic Review,*** Online Supplementary Material, 2015, 56(4).

32. JIANG, L., PHILLIPS, P.C.B., YU, J., 'New Methodology for Constructing Real Estate Price Indices Applied to the Singapore Residential Market', ***Journal of Banking and Finance,*** 2015, 61, S121-S131.

33. FULOP, A., LI, J., YU, J., 'Self-Exciting Jumps, Learning, and Asset Pricing Implications'. ***Review of Financial Studies,*** 2015, 28(3), 876-912.

34. ZHOU, Q., YU, J., 'Asymptotic Theory for Linear Diffusions under Alternative Sampling Scheme'. ***Economics Letters,*** 2015, 128, 1-5.

35. WANG, X., YU, J., 'Limit Theory for an Explosive Autoregressive Process'. ***Economics Letters,*** 2015, 126, 176-180.

36. CHEN, Y., YU, J., 'Optimal Jackknife for Unit Root Models'. ***Statistics and Probability Letters,*** 2015, 99, 135-142.

37. BAO, Y., ULLAH, A., WANG, Y., YU, J., 'Bias in the Estimation of Mean Reversion in Continuous-Time Levy Processes', ***Economics Letters,*** 2015, 134, 1619.

38. LI, Y., ZENG, T., YU, J., 'Deviance Information Criterion for Comparing VAR Models,' ***Advances in Econometrics:*** *Essays in Honor of Peter C.B. Phillips,* 2014, 615-637.

39. KLEPPE, T.S., YU, J., SKAUG, H., 'Simulated Maximum Likelihood Estimation for Latent Diffusion Models'. ***Journal of Econometrics,*** 2014, 180, 73-80.

40. LI, Y., ZENG, T., YU, J., 'A New Approach to Bayesian Hypothesis Testing', ***Journal of Econometrics,*** 2014, 178, 602-612.

41. PHILLIPS, P.C.B., SHI, S., YU, J., 'Specification Sensitivity in the Right-tailed Unit Root Testing for Explosive Behaviour'. ***Oxford Bulletin of Economics and Statistics,*** 2014, 76, 315-333.

42. YU, J., 'Econometric Analysis of Continuous Time Models: A Survey of Peter Phillips' Work and Some New Results', ***Econometric Theory,*** 2014, 30, 737-774.

43. SKAUG, H., YU, J., 'Automatic Likelihood Analysis of Stochastic Volatility Models'. ***Computational Statistics and Data Analysis,*** 2014, 76, 642-654.

44. YIU, M., YU, J., JIN, L., 'Detecting Bubbles in Hong Kong Property Market'. ***Journal of Asian Economics,*** 2013, 28, 115-124.

45. YU, J., 'Bias in the Estimation of the Mean Reversion Parameter in Continuous Time Models', ***Journal of Econometrics,*** 2012, 169, 114-122.

46. YU, J., 'A Semiparametric Stochastic Volatility Model', ***Journal of Econometrics,***

2012, 167, 473-482.

47. LI, Y., YU, J., 'Bayesian Hypothesis Testing in Latent Variable Models', ***Journal of Econometrics,*** 2012, 166, 237-246.

48. PHILLIPS, P.C.B., YU, J., 'Dating the Timeline of Financial Bubbles during the Subprime Crisis', ***Quantitative Economics,*** 2011, 2, 455-491.

49. WANG, X., PHILLIPS, P.C.B., YU, J., 'Bias in Estimating Multivariate and Univariate Diffusions', ***Journal of Econometrics,*** 2011, 161, 228-245.

50. PHILLIPS, P.C.B., YU, J., 'Corrigendum to "A Gaussian Approach for Continuous Time Models of the Short Term Interest Rate"', ***Econometrics Journal,*** 2011, 14, 216-219.

51. PHILLIPS, P.C.B., WU, Y., YU, J., 'Explosive Behavior and the Nasdaq Bubble in the 1990s: When Does Irrational Exuberance Have Escalated Asset Values?' ***International Economic Review,*** 2011, 52, 201-226.

52. HUANG, S., YU, J., 'Bayesian Analysis of Structural Credit Risk Models with Microstructure Noises', ***Journal of Economic Dynamics and Control,*** 2010, 34, 2259-2272.

53. KLEPPE, T.S., YU, J., SKAUG, H., 'Simulated Maximum Likelihood Estimation of Continuous Time Stochastic Volatility Models', ***Advances in Econometrics,*** 2010, 26, 137-161.

54. GOURIEROUX, C., PHILLIPS, P.C.B., YU, J., 'Indirect Inference for Dynamic Panel Models', ***Journal of Econometrics,*** 2010, 157, 68-77.

55. PHILLIPS, P.C.B., YU, J., 'Simulation-based Estimation of Contingent-claims Prices', ***Review of Financial Studies,*** 2009, 22, 3669-3705.

56. PHILLIPS, P.C.B., YU, J., 'A Two-Stage Realized Volatility Approach to Estimation of Diffusion Processes with Discrete Data', ***Journal of Econometrics,*** 2009, 150, 139-150.

57. HUANG, S., YU, J., 'An Efficient Method for Maximum Likelihood Estimation of a Stochastic Volatility Model', ***Statistics and Its Interface,*** 2008, 1, 289-296.

58. HUANG, S., YU, J., 'On Stiffness in Affine Asset Pricing Models', ***Journal of Computational Finance,*** 2007, 10, 99-123.

59. JIN, X., WANG, L., YU, J., 'Temporal Aggregation and Risk-Return Relation', ***Finance Research Letters,*** 2007, 4, 104-115.

60. HUANG, S., LIU, Q., YU, J., 'Realized Stock Index Volatility with Microstructure Noises', ***Annals of Economics and Finance,*** 2007, 8, 33-56.

61. ASAI, M., McALEER, M., YU, J., 'Multivariate Stochastic Volatility: A Review', ***Econometric Reviews,*** 2006, 25, 145-175.

62. YU, J., YANG, Z., ZHANG, X.B., 'A Class of Nonlinear Stochastic Volatility Models

and Its Implications on Pricing Currency Options', ***Computational Statistics and Data Analysis,*** 2006, 51, 2218-2231.

63. PHILLIPS, P.C.B., YU, J., 'Realized Variance and Microstructure Noise -Comment', ***Journal of Business & Economic Statistics,*** 2006, 24, 202-208.

64. YU, J., MEYER, R., 'Multivariate Stochastic Volatility Models: Bayesian Estimation and Model Comparison', ***Econometric Reviews,*** 2006, 25, 361-384.

65. PHILLIPS, P.C.B., YU, J., 'Comments: A Selective Overview of Nonparametric Methods in Financial Econometrics', ***Statistical Science,*** 2005, 20, 338-357.

66. YU, J., 'On Leverage in a Stochastic Volatility Model', ***Journal of Econometrics,*** 2005, 127, 165-178.

67. PHILLIPS, P.C.B., YU, J., 'Jackknifing Bond Option Prices', ***Review of Financial Studies,*** 2005, 18, 707-742.

68. BERG, A., MEYER, R., YU. J., 'Deviance Information Criterion for Comparing Stochastic Volatility Models', ***Journal of Business & Economic Statistics,*** 2004, 22, 107-120.

69. YU, J., 'Empirical Characteristic Function Estimation and Its Applications', ***Econometric Reviews,*** 2004, 23, 93-123.

70. TSE, Y.K., ZHANG, X.B., YU, J., 'Estimation of Hyperbolic Diffusion using MCMC Method', ***Quantitative Finance,*** 2004, 4, 158-169.

71. KNIGHT, J., YU, J., 'Empirical Characteristic Function in Time Series Estimation', ***Econometric Theory,*** 2002, 18, 691-721.

72. KNIGHT, J., SATCHELL, S., YU, J., 'Estimation of the Stochastic Volatility Model by the Empirical Characteristic Function Method', ***Australian and New Zealand Journal of Statistics,*** 2002, 44, 319-335.

73. YU, J., 'Forecasting Volatility in the New Zealand Stock Market', ***Applied Financial Economics,*** 2002, 12, 193-202.

74. YU, J., PHILLIPS, P.C.B., 'A Gaussian Approach for Continuous Time Models of Short Term Interest Rates', ***Econometrics Journal,*** 2001, 4, 211-225.

75. SHAO, Q.M., YU, H., YU, J., 'Do Stock Returns Follow a Finite Variance Distribution?' ***Annals of Economics and Finance,*** 2001, 2, 467-486.

76. MEYER, R., YU, J., 'BUGS for a Bayesian Analysis of Stochastic Volatility Models', ***Econometrics Journal,*** 2000, 3, 198-215.

77. GUTHRIE, G., WRIGHT, J., YU, J., 'Testing the Expectations Theory of the Term Structure for New Zealand', ***New Zealand Economic Papers,*** 1999, 33, 93-114.

Publications in Edited Books or Refereed Conference Proceedings

78. LI, Y., YU, J., ZENG, T., 'Hypothesis Testing, Specification Testing and Model

Selection Based on the MCMC Output using R', ***Handbook of Statistics,*** 2019, Vol 41, Chapter 4, 81-115

79. YU, J., 'Simulation-based Estimation Methods for Financial Time Series Models', ***Handbook of Computational Finance,*** eds Jin-Chuan Duan, Wolfgang Hardle, and James E. Gentle, Springer, 2012, Chapter 15, Page 427-465.

80. PHILLIPS, P.C.B., YU, J., 'Maximum Likelihood and Gaussian Estimation of Continuous Time Models in Finance', in Andersen, T.G., Davis, R.A., Kreib, J.-P., Mikosch, T. (eds) ***Handbook of Financial Time Series,*** 2009, 497-530.

81. YU, J., YANG, Z., 'A Class of Nonlinear Stochastic Volatility Models', ***Proceedings of the 5th International Conference on Computational Intelligence in Economics and Finance,*** 2006, Atlantis Press. DOI: 10.2991/jcis.2006.87.

82. BLUHM, H., YU. J., 'Forecasting Volatility: Evidence from the German Stock Market,' In P. Franses and M. McAleer (eds), ***Modelling and Forecasting Financial Volatility,*** 2001, 173-193.

83. YU, J., 'Test for Finite Variance Stock Return Distributions', in J.L. Knight and S.E. Satchell (eds.) ***Return Distributions in Finance.*** Oxford, Butterworth-Heinemann, 2000, 143-164.

Published Interviews, Introductions to Special Issues and Op-Ed Articles

84. YU, J., 'Bayesian Methods in Economics and Finance: Editor's Introduction', ***Journal of Econometrics,*** 2022, 230, 1-2.

85. XIE, T., YU, J., 'Forecasting Singapore GDP Using SPF Data', ***Macroeconomic Review,*** Monetary of Singapore, October 2020, 112-121.

86. PHILLIPS, P.C.B., YU, J., 'Special Issue of Econometric Theory on SETA 2010: Editors' Introduction', ***Econometric Theory,*** 2014. 30(1), 1-2.

87. PHILLIPS, P.C.B., YU, J., 'Bubble or Roller Coaster in World Stock Markets', ***Business Times,*** June 28, 2013.

88. MARIANO, R., XIAO, Z., YU, J., 'Recent Advances in Nonstationary Time Series: A Festschrift in honour of Peter C. B. Phillips', ***Journal of Econometrics,*** 2012, 169, 139-141.

89. MARIANO, R., XIAO, Z., YU, J., 'Recent Advances in Panel Data, Nonlinear and Nonparametric Models: A Festschrift in honour of Peter C. B. Phillips', ***Journal of Econometrics,*** 2012, 169, 1-3.

90. YU, J., PHILLIPS, P.C.B.,'资产泡沫的预警系统'，联合早报，May 22, 2011

91. PHILLIPS, P.C.B., YU, J., 'A Conversation with Professor Eric Ghysels', ***Econometric Theory,*** 2012, 28, 207-217.

92. PHILLIPS, P.C.B., YU, J., 'Warning Signs of Future Asset Bubbles', ***Straits Times,*** April 26, 2011.

93. PHILLIPS, P.C.B., YU, J., GHYSELS, E., 'Using Financial Econometrics to

Measure Risk', ***Business Times,*** October 27, 2010.

Working Papers

1. LI, J., SHI, S.P., PHILLIPS, P.C.B., YU, J., 'Weak Identification of Long Memory with Implications for Inference'.
2. LUI, Y., PHILLIPS, P.C.B., YU, J., 'Robust Testing for Explosive Behavior with Strongly Dependent Errors'. ***Journal of Econometrics***, R&R.
3. QIU, Y, XIE, T., YU, J., ZHANG, X., 'Forecast combinations in machine learning'
4. XIE, T., YU, J., ZENG, T., 'Econometric Methods and Data Science Techniques: A Review of Two Strands of Literature and an Introduction to Hybrid Methods'
5. LI, Y., WANG, N., YU, J., ZENG, T., 'Deviance Information Criterion for Model Selection: Theoretical Justification and Applications'
6. ANDO, T., BAI, J., NISHIMURA, M., YU, J., 'A Quantile-based Asset Pricing Model'.
7. PHILLIPS, P.C.B., YU, J., 'Limit Theory for Dating the Origination and Collapse of Mildly Explosive Periods in Time Series Data'.
8. GHOSH, A., YU, J., 'Singapore Consumer's Inflation Expectations and Creation of Singapore Index of Inflation Expectations'.
9. LIU, X., YU, J., 'EM algorithm, Euler Equation and Stochastic Control Problems'.
10. LIU, C., XIA, N., YU, J., 'Shrinkage Estimation of Covariance Matrix for Portfolio Choice with High Frequency Data'.
11. TANAKA, K., XIAO, W., YU, J., 'Local Powers of Least-Squares-Based Test for Panel Fractional Ornstein-Uhlenbeck Process'
12. LIU, X., SHI, S., YU, J., 'Fractional Stochastic Volatility'.
13. LIU, Y., PHILLIPS, P.C.B., YU, J., 'Clustering and Right-tailed Testing under Fixed-coefficient Mixed-root Panel Autoregression'.
14. JIANG, H., PAN, Y., XIAO, W., YU, J., 'Double Asymptotics for Explosive Fractional Ornstein-Uhlenbeck Processes'.
15. LI, J., PHILLIPS, P.C.B., SHI, S., YU, J., 'Weak Identification in Long Memory with Implications on Volatility Modelling'.
16. QIU, Y, XIE, T., WANG, X.,YU, J., 'Modeling and Forecasting Realized Volatility of Cryptocurrency'.
17. Wang, X., Yu, J., Zhang, C., 'On the Optimal Forecast with the Fractional Brownian Motion'.
18. Shi, S., Yu, J., Zhang, C., 'Fractional Gaussian Noise: Spectral Density and Estimation Methods'.
19. Shi, S., Yu, J., Zhang, C., 'On the Spectral Density of Fractional Ornstein-Uhlenbeck

Process: Approximation, Estimation, and Model Comparison'.

Index Creation

1. GHOSH, A., YU, J., Singapore Index of Inflation Expectations, since January 2011

2. YU, J., Quasi Repeat Sale Price Index for Singapore's private residential property

Research Grants

2021 'New machine learning methods with applications in forecasting economic and financial variables', *Ministry of Education*, AcRF Tier-2, Singapore, S$362,112, sole principal investigator (for 3 years)

2020 'Dynamic and Holistic Monitoring of the Well-Being of Older Singaporeans', *Ministry of Education*, AcRF Tier-3, Singapore, S$9,900,000 (9.9 million), principal co-investigator (for 5 years)

2019 'New Causal Inference Methods for Applied Economics', *Ministry of Education*, AcRF Tier-2, Singapore, S$490,940, principal co-investigator (for 3 years)

2014 'Economic Security and the Aging Demographic – Centre for Research on the Economics of Aging', *Ministry of Education*, AcRF Tier-3, Singapore, S$11,680,613.58 (11.68 million), the lead principal investigator (for 6 years)

2012 'Econometric Analysis of Nonstationary Explosive Processes: Theory & Applications', *Ministry of Education*, AcRF Tier-2, Singapore, S$428,000, sole principal investigator (for 3 years)

2007 'Econometric Analysis of Ultra-high Frequency Data', *Ministry of Education*, AcRF Tier-2, Singapore, S$616,400, principal co-investigator (for 3 years)

2007 'Explosive Behavior in the 1990s Nasdaq,' *Singapore Management University*, principal investigator

2006 'Indirect Inference for Dynamic Panel Models,' *Singapore Management University*, principal investigator

2005 'Realized Volatility and Its Application in the Estimation of Continuous Time Models,' *Singapore Management University*, principal investigator

2004 'Towards Understanding Asymmetric Response of Volatilities,' *Singapore Management University*, principal investigator

2004 'On Leverage in a Stochastic Volatility Model,' *Singapore Management University*, principal investigator

2002 ‘Efficient Estimating and Testing Methods for Time Series Models,’ *University of Auckland,* S$30,000

2001 ‘Efficient Estimating and Testing Methods for Time Series Models,’ *The Royal Society of New Zealand Marsden Fund,* NZ$100,000, principal investigator

2000 ‘Gaussian Estimation of Interest Rates,’ *Auckland Business School Research Fund,* NZ$2,850, principal investigator

1999 ‘Empirical Characteristic Function in Time Series Estimation and Applications,’ *University of Auckland Research Fund*, $10,300, principal investigator

1999 ‘Interest Rate Dynamics,’ *Auckland Business School Research Fund,* NZ$2,500, principal investigator

1998 ‘Automated Forecasting and Policy Analysis for the New Zealand Economy,’ *Auckland Business School Research Fund*, NZ$6,000, associate investigator

Editorial Services

Associate Editor, *Journal of Econometrics*, 2019-present
Member of selection committee of Aigner/Zellner awards, *Journal of Econometrics*, 2021
Associate Editor, *Econometric Theory*, 2006-present
Associate Editor, *Journal of Financial Econometrics*, 2012-present
Editorial Board, *China Journal of Econometrics*, 2021-present
Associate Editor, *Econometric Reviews*, 2006-2008
Editorial Board, *Empirical Economics*, 2009-2011
Associate Editor, *Asia-Pacific Financial Markets*, 2010-2013
Guest Editor, *Journal of Econometrics*, Special issue on “Bayesian Methods in Economics and Finance”, 2022
Guest Editor, *Journal of Econometrics*, Special issue on “Recent Advances in Nonstationary Macro Time Series and Financial Time Series”, 2012
Guest Editor, *Journal of Econometrics*, Special issue on “Recent Advances in Panel Data and Nonparametric and Nonlinear Models”, 2012
Guest Editor, *Econometric Theory*, SETA2010 special issue

Refereeing

Advances in Econometrics, American Journal of Agricultural Economics, Annals of Statistics, Applied Financial Economics, Computational Statistics and Data Analysis, Econometrica, Econometric Theory, Econometrics Journal, Econometric Reviews, Economic Letters, Economic Modelling, Finance and Stochastics, International Journal of Forecasting, Journal of the American Statistical Association, Journal of Applied Econometrics, Journal of Asian Economics, Journal of Business & Economic Statistics, Journal of Corporate Finance, Journal of Economic Dynamics and Control, Journal of Derivatives, Journal of Economic Surveys, Journal of Econometrics, Journal of Empirical Finance, Journal of Financial and Quantitative Analysis, Journal of Financial Econometrics, Journal of Finance, Journal of Futures Markets, Journal of Money, Credit, and Banking, Journal of Statistical Computation and Simulation, Journal of Time Series Analysis, Journal of Time Series Econometrics, Management Science, Mathematical Reviews, New Zealand Economic Papers, Operations Research, Pacific-Basin Finance Journal, Physica A, Quantitative Finance, Review of Economic Studies, Review of Financial Studies, Statistica Sinica, Statistics and Its Interface, Singapore Economic Review, Studies in Nonlinear Dynamics and Econometrics, *Ecole Polytechnique, National Science Foundations, Social Sciences and Humanities Research Council of Canada, Royal Society of New Zealand, Research Grants Council of Hong Kong, Taylor and Francis, Risk Management Institute, Academia Sinica, City University of Hong Kong, Chinese University of Hong Kong, ESSEC Business School, External Examiner of Theses at University of Canterbury, University of Western Ontario, Queensland University of Technology, and National University of Singapore*

Consultancy Experience

- Advisor, International Monetary Fund (IMF), 2011, 2012, 2015, 2016, 2017, 2018, 2019, 2022
- Consultant, Monetary Authority of Singapore, "Econometric Methods and Data Science Techniques: A Review of Two Strands of Literature and an Introduction to Hybrid Methods", 2020
- Resource speaker, the South East Asian Central Bank Research and Training Centre (SEACEN), 2021
- Consultant, Government Investment Corporation, "Forecasting short-term market movements using conventional econometric methods and machine learning", 2017
- Consultant, AVA, Review on "Dissecting the Illegal Ivory Trade: An Analysis of Ivory Seizures Data", 2017
- Consultant, ASEAN+3 Macroeconomic Research Office, "Regime switch models", 2013
- Consultant, ASEAN+3 Macroeconomic Research Office, "Financial Stress Index", 2014
- Consultant, Monetary Authority of Singapore, "State-space modelling with panel data", 2010
- Short course, Government Investment Corporation, "Econometrics and Financial Econometrics", 2006
- Full course, National University of Singapore MFE, "Financial Econometrics", 2001, 2006
- Short course, East Asia Training and Consultancy Pte, "Macroeconometric and Financial Modeling with GAUSS7.0", 2005
- Consultant, Covec, "Tourism forecasting review" 2002
- Short course, Treasury of New Zealand, "Economic Forecasting", 2001
- Short course, Commercial banks, investment banks, and the Reserve Bank of New Zealand, "Volatility Forecasting", 2000
- Consultant, ASB Bank, "Panel analysis of bank margins", 1999

Professional Activities

- Founder, Singapore Econometrics Study Group, Singapore
- Council Member, the Society for Financial Econometrics (SoFiE), 2010-present

- Co-chair, Program Committee, The Inaugural Financial Econometrics and New Finance Conference, Zhejiang University, 2018, 2019
- Member, Program Committee, Asian Econometric Society Meetings, Xiamen, 2019
- Member, Program Committee, Asian Econometric Society Meetings, Malaysia, 2020
- Member, Program Committee, Econometric Society North American Summer Meetings, Seattle, 2019
- Member, Program Committee, IAAE Meetings, Cyrus, 2019
- Member, Program Committee, European Financial Management Association Annual Meetings, 2018, 2019.
- Co-chair, Program Committee, ESSEC-SMU Bayesian Methods in Finance, December 2018, Singapore.
- Co-chair, Program Committee, The 3rd Dongbei Econometrics Workshop, July 2017
- Co-chair, Program Committee, The 4th Dongbei Econometrics Workshop, June 2018
- Organizer, ESSEC-Daulphine-SMU Conference on Systemic Risk, December 2015, Singapore.
- Organizer, SH3 Conference on Econometrics, March 2019, Singapore
- Organizer, HU-HUE-SMU Conference on Econometrics, March 2018, Singapore
- Organizer, HU-HUE-SMU Conference on Econometrics, March 2017, Singapore
- Organizer, HU-HUE-SMU Conference on Econometrics, March 2016, Singapore
- Organizer, HU-HUE-SMU Conference on Econometrics, March 2015, Singapore
- Organizer, Princeton-QUE-SJTU-SMU Conference in Frontiers on Econometrics, April 2015, Singapore
- Co-organizer, Inaugural SJTU-SMU Econometrics Conference, July 2014, Shanghai
- Organizer, 2014 Annual SKBI Conference on Financial Economics, April 2014, Singapore
- Member, Program Committee, Symposium on Econometric Theory and Applications, 2014, Taiwan
- Member, Program Committee, Asian Meeting of Econometric Society, August 2013, Singapore
- Member, Program Committee, the Society for Financial Econometrics (SoFiE) Annual Meetings, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
- Co-organizer, the Society for Financial Econometrics (SoFiE) 2013 Annual Meeting, Singapore, June 2013
- Co-organizer, 2012 Shanghai Econometrics Workshop, May 2012, Shanghai
- Organizer, SMU Summer Institute in Financial Markets and Institutions, May, 2012
- Organizer and Program Co-Chair, 2012 SMU-ESSEC Conference on Empirical Finance and Financial Econometrics, June 2012, Singapore
- Organizer and Program Co-Chair, Princeton/QUT/SMU Tripartite Conference on Financial Econometrics, May 2012, Singapore
- Organizer and Program Chair, 2012 Annual SKBI Conference on Financial Economics, May 2012, Singapore
- Organizer, SMU/Hiroshima University/ Hiroshima University of Economics Tripartite conference, March 2012, Singapore
- Organizer and Program Co-Chair, 2011 SMU-ESSEC Symposium on Empirical Finance and Financial Econometrics, June 2011, Singapore
- Organizer and Program Co-Chair, 2011 Annual SKBI Conference on Financial Economics, May 2011, Singapore

- Organizer and Program Co-Chair, 2010 International Symposium on Econometric Theory and Applications, April 2010, Singapore
- Organizer, Mini-conference on Financial Econometrics, June 2010, Singapore
- Organizer, SMU/Hiroshima University/ Hiroshima University of Economics Tripartite conference, March 2010, Singapore
- Organizer and Program Co-Chair, Conference in Honor of Peter C.B. Phillips, 2008, Singapore
- Organizer and Program Chair, Singapore Econometrics Study Group Meeting, 2004, 2005, 2006, 2007, 2009, Singapore
- Organizer and Program Co-chair, New Zealand Econometrics Study Group Meeting, 2001, Auckland
- Organizer and Program Co-chair, New Zealand Econometrics Study Group Meeting, 1999, Auckland
- Member, Program Committee, Symposium on Econometric Theory and Applications, 2012, Shanghai, China
- Member, Program Committee, Annual Conference of the Society for Financial Econometrics, 2012, Oxford, UK
- Member, Advisory Committee, Symposium on Econometric Theory and Applications, 2011, Melbourne
- Member, Program Committee, Symposium on Econometric Theory and Applications, 2011, Melbourne
- Member, Scientific Program Committee, Risk Management Conference, National University of Singapore, 2011, Singapore
- Member, Scientific Program Committee, Risk Management Conference, National University of Singapore, 2010, Singapore
- Member, Program Committee, Second Annual Conference of the Society for Financial Econometrics, 2009, Geneva, Switzerland
- Member, Program Committee, Far Eastern Meeting of Econometric Society, 2008, Singapore
- Member, Scientific Program Committee, Risk Management Conference, National University of Singapore, 2008, Singapore
- Member, Scientific Program Committee, International Symposium on Financial Engineering and Risk Management, 2008, Shanghai
- Member, Program Committee, Symposium on Econometric Theory and Applications, 2008, Seoul
- Member, Program Committee, Symposium on Econometric Theory and Applications, 2007, Hong Kong
- Member, Program Committee, 2001 Econometric Society Australiasian Meeting, 2001, Auckland
- Member of the Econometric Society
- Member of the American Finance Association
- Member of the Western Finance Association
- Member of the Society of Financial Econometrics

Seminars

Yale University, Princeton University, UC Berkeley, UC San Diego, University of Penn, New York University, University of Missouri, University of Maryland, IMF, SWUFE, Huazhong

University of Science and Technology, Xiamen University, Peking University, Tsinghua University, Renmin University of China, Capital University of Business and Economics, Dongbei University of Finance and Economics, Stanford University, Shanghai Jiaotong University, Fudan University, Shanghai University of Finance and Economics, Wuhan University, Singapore Management University, National University of Singapore, Nanyang Technological University, CREST, London School of Economics, Queens Mary University of London, Aarhus University, Hunan University, University of Chinese Academy of Sciences, Nanjing Audit University, University of Western Ontario, Hong Kong Monetary Authority, Monetary Authority of Singapore, Deutsche Bundesbank, Bank of Korea, Banque de France, ESSEC, University of Tokyo, Federal Reserve Bank of Atlanta, University of Hiroshima, Hitotsubashi University, Seoul National University, Korea University, University of Auckland, University of Alberta, Bank of Canada, Monash University, Queens University, Chinese University of Hong Kong, Hong Kong University of Science and Technology, City University of Hong Kong, University of Macau, Sun Yat Sen University, University of British Columbia, Cheung Kong Graduate School of Business, University of Bologna, University of Washington, National Taiwan University, Academic Sinica, GIC, National Central University, Treasury Department of USA, National Chung Hsing University, Université Catholique de Louvain, Australia National University, University of Technology, Sydney, Macquarie University, University of Western Australia, University of Toronto, Zhejiang University, Sungkyunkwan University

University Administrative Duties

- Director, Sim Kee Boon Institute for Financial Economics (University Level Research Institute with four research centres under it), Singapore Management University, 2011-2013
- Deputy Director (Academic), Sim Kee Boon Institute for Financial Economics, Singapore Management University, 2008-2010
- Co-Director, Centre for Financial Econometrics, Singapore Management University, 2010-2013
- Deputy Director, Centre for Financial Econometrics, Singapore Management University, 2008-2010
- Member/chair, adhoc Reading Committee for Promotion/Reappointment/Tenure, School of Economics, Singapore Management University, 2005-present
- Member, School Research Evaluation Committee, 2011-present
- Member, Dean's Search Committee, 2010
- Member, adhoc Reading Committee for Reappointment/Promotion, Lee Kong Chian School of Business, Singapore Management University, 2010, 2021
- Member, adhoc School Evaluation Committee for Promotion, Lee Kong Chian School of Business, Singapore Management University, 2010
- Member, adhoc School Evaluation Committee for Promotion, School of Accountancy, Singapore Management University, 2012
- Member, Recruiting Committee, University of Auckland, 2000, 2001, 2002, 2003,
- Member, Recruiting Committee, University of Auckland, 2006
- Member, Computing Committee, University of Auckland, 2000, 2001
- Member, University of Auckland, EO committee
- Member, IT Steering Committee, Singapore Management University, 2005, 2006

Doctoral Students (Chair or Co-chair)

1. Andreas Berg, University of Auckland (Co-chair), 2005
   'Bayesian Analysis of Financial Time Series'

2. Xiaohu Wang, Singapore Management University (Co-chair), 2012
   'Three Econometric Essays on Continuous Time Models'
   First appointment: Chinese University of Hong Kong
   Current appointment: Fudan University

3. Tao Zeng, Singapore Management University (Chair), 2013
   'Three Essays on Bayesian Hypothesis Testing and Model Selection'
   First appointment: Wuhan University
   Current appointment: Zhejiang University

4. Ye Chen, Singapore Management University (Co-chair), 2014
   'Three Essays on Nonstationary Time Series Analysis'
   First appointment: Capital University of Economics and Business
   Current appointment: Capital University of Economics and Business

5. Liang Jiang, Singapore Management University (Co-chair), 2016, 'Three Essays on Financial Econometrics'
   First appointment: Fudan University
   Current appointment: Fudan University

6. Xiaobin Liu, Singapore Management University (Chair), 2018
   First appointment: Zhejiang University
   Current appointment: Zhejiang University

7. Ming Zeng, Singapore Management University (Chair), 2018
   First appointment: The University of Gothenburg
   Current appointment: The University of Gothenburg

8. Yubo Tao, Singapore Management University (Co-chair), 2019
   First appointment: Singapore Management University
   Current appointment: University of Macau

9. Yanbo Liu, Singapore Management University (Co-chair), 2020
   First appointment: Shandong University
   Current appointment: Shandong University

10. Allen Lui, Singapore Management University (Chair), 2020
    First appointment: Dongbei University of Finance and Economics
    Current appointment: Dongbei University of Finance and Economics

11. Yijie Fei, Singapore Management University (Chair), 2020
    First appointment: Hunan University
    Current appointment: Hunan University

12. Han Chen, Singapore Management University (Chair), 2020
    First appointment: Hunan University
    Current appointment: Hunan University

13. Xueying Bian, Singapore Management University (Co-chair), 2021
    First appointment: Beijing University of Posts and Telecommunications
    Current appointment: Beijing University of Posts and Telecommunications

14. Yajie Zhang, Singapore Management University (Chair), 2021
    First appointment: Singapore Management University

15. Shuyao Ke, Singapore Management University (Co-Chair), 2022
    First appointment: Jinan University

16. Yaohan Chen, Singapore Management University (Chair), 2022

17. Fang Chao, Singapore Management University (Chair, DBA), 2019

18. Shu Zhituan, Singapore Management University (Chair, DBA), 2019

19. Sun Gang, Singapore Management University (Chair, DBA), 2021

20. Wang Guangyu, Singapore Management University (Chair, DBA), 2021

21. He Yinyu, Singapore Management University (Chair, DBA), 2021

22. Liu Jinzhao, Singapore Management University (Chair, DBA)

23. Qiu Ming, Singapore Management University (Chair, DBA)

24. Zhang Zhige, Singapore Management University (Chair, DBA)

Post-Doctoral Fellows

25. Daniel Preve, 2008-2010
    Current appointment: Singapore Management University

26. Xiaohu Wang, 2012-2013
    Current appointment: Fudan University

27. Yong Li, 2011-2013
    Current appointment: Renmin University of China

28. Cheng Liu, 2013-2014
    Current appointment: Wuhan University

29. Tao Zeng, 2013-2014
    Current appointment: Zhejiang University

30. Ye Chen, 2014-2015
    Current appointment: Capital University of Economics and Business

31. Liang Jiang, 2016-2018
    Current appointment: Fudan University

32. Chen Zhang, 2022-2024

Media/Press Coverage

"Innovation Offers Strategic opportunities for property sector", *The Business Times*, September 30, 2014

2014 年 9 月 30 日，*联合早报*

"新大拟推出新指数 更全面反映本地私宅走势"，2013 年 5 月 8 日，*联合早报*

"新大拟推出新指数 更全面反映本地私宅走势"，2013 年 5 月 10 日，*中国新加坡经贸合作网*

"中国本科教育水平偏高学生能吃苦"，2013 年 4 月，*新华网，人民网，上海教育新闻网，中国经济网，新浪网，国务院新闻办公室，捷讯网，新华网，中国青年网，中国网，中国新闻网，凤凰网，京报网，新浪网*

"外国学者不认为中国学生到海外读研是中国人才流失"，2013 年 4 月 14 日，*人民网*

"US Economy and QE3", February 2, 2012, *Channel 8,*
http://www.smu.edu.sg/institutes/skbife/archive/media12.asp

"Euro Debt Crisis", December 8, 2011, *Channel 8,*
http://www.smu.edu.sg/institutes/skbife/archive/media11.asp

"New Tool to Help Inflation Forecasts", January 11, 2012, *Straits Times*

"两项新指数推出可预测一与五年通胀"， 2012 年 1 月 11 日, *联合早报*

"New Index Tracks Inflation Expectations", January 11, 2012, *The Business Times*

"MasterCard and Singapore Management University Launch Singapore Inflation Index", January 11, 2012, *Singapore Business Review*

"New Singapore Inflation Index Launched", January 10, 2012, *AsiaOne*

"MasterCard and Singapore Management University Launch New Singapore Inflation Index", January 11, 2012, *The Financial*