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CHEN, Ying 陈颖

About Me

Current Positions and Leadership Roles

I am currently an Associate Professor in the Department of Mathematics at the National University of Singapore (NUS), a position I have held since January 2019. I serve as the Director of the Centre for Quantitative Finance, and Program Director of two master's programs in Quantitative Finance, including a joint program with Shanghai Jiao Tong University (SJTU). I also hold joint and courtesy appointments across several departments and institutes at NUS.

Research Funding and Impact

Since 2016, I have secured over S$16 million in competitive research funding from agencies such as the National Research Foundation (NRF), Monetary Authority of Singapore (MAS), Ministry of Education (MoE), HTX Singapore, and industry partners including UPS, DSO, and ONE. My research has advanced fields such as nonstationary time series, large-scale complex data analysis, AI forecasting, and quantum computing for finance and fintech.

I have authored 47 publications and filed 2 patents. The majority of my work appears in top-tier journals in statistics, econometrics, and energy with impact factor ≥ 3.0, SJR above 2.0, and H-index above 100.

Supervision and Academic Mentorship

I currently supervise 6 PhD students, 3 research fellows, 1 research associate and 1 research assistant. Since 2007, I have supervised 17 PhD students, two of whom received the *Best Graduate Researcher Award* in our department. My PhD and postdoctoral alumni have gone on to hold prestigious academic and industry positions, including:

- Two Assistant Professors at Waseda University, City University of Hong Kong, University of Amsterdam and mainland Chinese universities
- Research Fellow at Zuse Institute Berlin
- Faculty and Professional Leadership at SMU, SUSS, Future-Moves Group, DBS, Octagon Advisors, UBS (China), and Gucci (China)

To date, I have also supervised 7 research fellows, 5 of whom became Assistant Professors in Asia and Europe.

International Engagement and Community Leadership

I have maintained a strong international presence through event organization and academic leadership. I am invited to deliver IASC President's Invited Talk at the 65th ISI World Statistics Congress on 6-9 Oct, 2025 in the Netherland. I currently serve as President of Society of Algorithmic Intelligence (SoAI), Council Member (2023–2027) of the International

Statistical Institute (ISI) and am Chairperson (2025–2027) and Board Member of the Asian Regional Section (ARS) of the International Association for Statistical Computing (IASC). I was also a member of the Advisory Board of the Institute of Statistical Mathematics (ISM) in Japan (2018–2022) and Advisor of the EU FIN-TECH project, under the EU's Horizon2020 Scheme.

Teaching and Curriculum Development
Since joining NUS in 2007, I have proposed nine new modules (four core undergraduate and five graduate electives) and taught fourteen different modules across undergraduate and graduate levels. These courses focus on quantitative methods and are often delivered to large classes, with a median enrollment of 79 and a maximum of 461 students.

Program and Centre Leadership
As Academic Director of the Asian Institute of Digital Finance (AIDF), I established strategic partnerships with Columbia University's Center for Digital Finance and Technologies, ETH Zurich's FinsureTech Hub, and NUS AIDF—all recognized for leadership in FinTech and digital innovation. In 2023, I also launched the industry co-education scheme for the AIDF PhD program, culminating in a formal partnership with GIC, Singapore's sovereign wealth fund.

I currently lead two master's programs in quantitative finance: the NUS MQF and the joint MQF-SJTU, with an annual intake of 155 and 45, respectively.

Through the Centre for Quantitative Finance, I coordinate an annual international conference, regular biweekly seminars, and academic–industry collaborations, and I host visiting scholars and exchange students.

Personal Data

- Nationality: Republic of Singapore
- Married, two sons

Career

- Associate Professor in Department of Mathematics, National University of Singapore, Singapore, since January 2019
- Director at the Centre for Quantitative Finance (CQF) from 1 July 2024 to 30 June 2026 (Interim from 15 January 2024 to 30 June 2024) and ex-officio member of the Management Board of the CQF.
- Academic Director at the Asian Institute of Digital Finance (AIDF) for PhD in Digital Financial Technology Programme, July 2022 to April 2024
- Joint Appointee in Risk Management Institute, National University of Singapore, Singapore, 1 July 2019 to 30 June 2027
- Associate Professor in Department of Statistics and Data Science, National University of Singapore, Singapore, January 2014 to December 2018, then Joint Appointment from January 2019 to December 2026.
- Program Director of MSc in Quantitative Finance (NUS-SJTU MQF) form 1 July 2023.
- Program Co-director of Data Science and Economics (DSE) cross-disciplinary program (XDP) form 1 March 2021 to 30 June 2023.
- Courtesy appointment in Department of Economics, April 1, 2018 to March 31, 2026
- Graduate Committee member of the Asian Institute of Digital Finance (AIDF)
- EXCO member and affiliated researcher in the Institute of Data Science (IDS).
- Affiliated researcher in Institute of Operations Research and Analytics (IORA).
- Faculty member in NUS Graduate School for Integrative Sciences and Engineering, Singapore, since July 2016
- Assistant Professor in Department of Statistics and Applied Probability, National University of Singapore, Singapore, July 2007 – December 2013
- Wissenschaftliche Mitarbeiterin at Humboldt-Universität zu Berlin, Germany, October 2002 - January 2007 and Weierstraß-Institut für Angewandte Analysis undStochastik (WIAS), Germany, June 2005 - January 2007

Research Interests

- AI Forecasting and Optimization
- Deep Learning & Quantum Computing for Quantitative Finance/FinTech/RegTech: Portfolio Liquidation; NLP and Sentiments; Market Making; Crypto blockchains
- Time Series Analysis: Nonstationary Time Series; Functional Time Series, Networks and Spatial-Temporal Data
- Energy Data Analytics: Modeling and Inference
- Data Oriented Analytics in Precision Medicine, Citation Analysis & Research Metrics, Patent Valuation, eXplainable AI

Education

- B.Sc. in Economics (1998) Renmin University of China 中国人民大学, China
- M.A. in Economics and management science (2002) Humboldt-Universität zu Berlin, Germany

- M.Sc. in Statistics (2005) Humboldt-Universität zu Berlin and Freie Universität Berlin, Germany
- Ph.D. in Statistics (2007) **Summa Cum Laude** Humboldt-Universität zu Berlin. Supervisors: Prof. Dr. Wolfgang Härdle (Humboldt-Universität zu Berlin, haerdle@wiwi.hu-berlin.de) and Prof. Dr. Vladimir Spokoiny (Weierstraß-Institut für Angewandte Analysis und Stochastik, spokoiny@wias-berlin.de)

Professional Activities
- President of Society of Algorithmic Intelligence (SoAI).
- Chairperson (2025-2027) and Board of Director ordinary member of the Asian Regional Section (ARS) of the International Association for Statistical Computing (IASC) Scientific Secretary (July 2017-June 2019, July 2023 – June 2025) and Executive Committee Member (July2017 – June 2023) of IASC
- Council Member of the International Statistical Institute (7 Associations with over 4500 members from over 100 countries) for the period 2023 – 2027.
- Conference Ambassador initiated by the Singapore Exhibition & Convention Bureau™ (SECB) from 1 August 2023 to 31 December 2025.
- Finance cluster chair for INFORMS International Meeting 2025 in Singapore.
- Scientific Programme Committee Member of the 64th ISI World Statistics Congress (WSC2023) in Ottawa, Canada on 16–20 July 2023.
- Regular member of the Advisory Board of Institute of Statistical Mathematics, Japan from 1 April 2018 to 31 March 2022
- Advisor of the EU FIN-TECH project, under the EU's Horizon2020 funding scheme, led by Prof. Paolo Giudici (https://www.fintech-ho2020.eu/)
- Scientific committee member of eXplainable Artificial Intelligence in Healthcare Management (xAIM) project under review by EU
- ISI Elected Member since March 2016
- Member of EU COST Action: CA19130 - Fintech and Artificial Intelligence in Finance - Towards a transparent financial industry, https://www.cost.eu/cost-action/ fintech-and-artificial-intelligence-in-finance-towards-a-transparent-financial-industry/
- Co-Editor of Journal of Data Science, Statistics and Visualization (JDSSV, 2024-)
- Guest editor of Earth, Planets and Space (EPS) for a special issue on advanced AI-based analysis of earthquake-related data (2025-2026).
- Associate Editor of Statistica Sinica (August 1, 2017 to July 31, 2023), Statistics and Its Interface, Digital Finance.
- Panelist on SWITCH : BEYOND - Transformative Digital Tech - Quantum : Meet Early Adopters for Auantum Computing in Finance and Biotech on 29 October 2024, Panelist on Sinapore OpenGov Leadership Forum "Superpositioned Futures: Where Will Quantum Take Us" on 22 May 2025. Panelist on SWITCH: Driving Corporate Innovation & Investments in APAC on 30 Oct 2025. Panelist on "Why quantum computing matters for financial services "Singapore FinTech Festival, 7 Nov 2024. Moderator on "AI for Today, Quantum for Tomorrow: Strategic Readiness for Finance" RMI annual conference on 15 August 2025.

Patents
1. PCT Patent Application No.: PCT/SG2023/050193 Title: A Data-Driven Bunker Planner System. TTI Ref: 2021-391-02
2. SG Patent Application No. 10202402748U. Title: Quantum-Ready Decentralized Investment Platform Using Distributed Ledger Technology for Optimized Portfolio

Management. TTI Ref: 2024-280-01

Publications

1. Zhou, L., **Chen, Y**., Gao, W., and Wang, S. B. (2026). *Innovation Value Discrepancy and Its Role in Shaping Firms' Short-Term Gains and Sustainable Growth*. Revision under International Review of Financial Analysis (Impact Factor: 9.8, SJR: 2.288).

2. Rong, G., **Chen, Y.,** Koch, T., and Honda, K. (2026). AssessingDataQualityin Citation Analysis: A CaseStudy of Web of Science and CrossRef. Second revision under Journal of Informetrics (Impact Factor: 3.4, SJR: 1.321).

3. Koch, T., Neira, D. E.B., **Chen, Y**., Cortiana, G., Egger, D. J., Heese, R., Hegade, N. N., Gomez Cadavid, A., Huang, R., Itoko, T., Kleinert, T., Maciel Xavier, P., Mohseni, N., Montanez-Barrera, J. A., Nakano, K., Nannicini, G., O'Meara, C., Pauckert, J., Proissl, M., Ramesh, A., Schicker, M., Shimada, N., Takeori, M., Valls, V., Van Bulck, D., Woerner, S., and Zoufal, C. (2026). *Quantum Optimization Benchmarking Library: The Intractable Decathlon*. Accepted by Nature Computational Science (Impact Factor: 18.3, SJR: 3.472).. arXiv:2504.03832. https://doi.org/10.48550/arXiv.2504.03832

4. **Chen, Y.,** Griffin, P., RECCHIA, P., Zhou, L., and Zhang, H. (2026). Hybrid Quantum Neural Networks with Amplitude Encoding: Advancing Recovery Rate Predictions. Accepted by Financial Innovation (Impact Factor: 7.2, SJR: 1.29).

5. Rong, G., **Chen, Y.,** Ma, F. and Koch, T. (2025). Interdisciplinary Trends; Critical Years; Interdisciplinary Citations; Citation Analysis. Accepted by Journal of Informetrics (Impact Factor: 3.4, SJR: 1.321).

6. **Chen, Y.,** Horst, U., and Tran, H.H. (2025). Portfolio liquidation under transient price impact. Accepted by Applied Mathematical Finance. doi.org/10.1080/1350486X.2025.2537932

7. **Chen, Y.,** Horst, U., and Tran, H.H. (2025). Optimal Trade Execution Under Endogenous Order Flow. Accepted by Operations Research (Impact Factor: 2.2, SJR: 2.56).

8. Han, X., Zhu, Y., Zhang, Y., and **Chen, Y. (2025)**. Policy Impact on the Global COVID-19 Pandemic and Unemployment Outcomes: A Large-Scale Mixed Frequency Spatial Approach. *Accepted by **Economic Modelling** (Impact Factor: 3.875, SJR: 1.417).*

9. *Xu, X., Peng, H., and **Chen, Y.** (2025).* Deep Switching State Space Model for Nonlinear Time Series Forecasting with Regime Switching. *Accepted by **International Journal of Forecasting** (Impact Factor: 7.9. SJR 2.428). https://doi.org/10.1016/j.ijforecast.2025.05.001.*

10. *Zhou, L., **Chen, Y.,** Peng, H. and Koch, T. (2025).* Is innovation slowing down? Insights from the AIMS framework of patent values. ***Expert Systems with Applications***. Volume 280, 127355, https://doi.org/10.1016/j.eswa.2025.127355. (Impact Factor: 7.5. SJR 1.854).

11. **Chen, Y**., *Grith, M. and Lai, H. (2025), Neural Tangent Kernel in Implied Volatility Forecasting: A Nonlinear Functional Autoregression Approach. **Journal of Business & Economic Statistics**, 1–15. https://doi.org/10.1080/07350015.2025.2489087* (Impact Factor: 2.9. SJR 4.171).

12. *Trimborn, S., Peng, H. and **Chen, Y.** (2024).* Influencer detection meets network autoregression — Influential regions in the bitcoin blockchain, ***Journal of Empirical Finance,*** Volume 78, 101529, ISSN 0927-5398, *https://doi.org/10.1016/j.jempfin.2024.101529.*

13. **Chen, Y**. *Giudici, P. Liu, K. and Raffinetti, E. (2024).* Measuring fairness in credit ratings, ***Expert Systems with Applications***, Volume 258, 125184, https://doi.org/10.1016/j.eswa.2024.125184. (Impact Factor: 7.5. SJR 1.854).

14. *Iwasaki, H.,* **Chen, Y.,** *Tu J.* (2023). Topic Tones of Analyst Reports and Stock Returns: A Deep Learning Approach. ***International Review of Finance****.* Volume 23, Issue 4, Pages 831-858. https://doi.org/10.1111/irfi.12425

15. *Xu, X., Zhang, Y., Liu, Y., Goto, Y., Taniguchi, M., and* **Chen, Y.** (2023). Long-memory Log-linear Zero-inflated Generalized Poisson Autoregression for Covid-19 Pandemic Modeling. ***Statistica Sinica. doi.org/10.5705/ss.202022.0148.***

16. **Chen, Y.,** *Koch, T., Zakiyeva, N., Liu, K., Xu, Z., Chen, CH., Nakano, J., Honda, K.* (2023). Article's Scientific Prestige: measuring the impact of individual articles in the Web of Science. ***Journal of Informetrics. Volume 17, Issue 1, doi.org/10.1016/ j.joi.2023.101379.*** (Impact Factor: 3.4, SJR: 1.321).

17. *Xu, X.,* **Chen, Y.,** *Zhang, G. and Koch, T.* (2022). Modeling functional time series and mixed-type predictors with partially functional autoregression. ***Journal of Business & Economic Statistics. 10.1080/07350015.2021.2011299*** (Impact Factor: 2.9. SJR 4.171).

18. *Lai, W.T., Chen, R.B.,* **Chen, Y.,** *and Koch, T.* (2022). Variational Bayesian Inference for Network Autoregression Models. ***Computational Statistics and Data Analysis. Volume 169, 107406, doi.org/10.1016/j.csda.2021.107406.***

19. *Liu, P.,* **Chen, Y.** *and Teo, C.P.* (2021). *Limousine Service Management: Capacity Planning with Predictive Analytics and Optimization.* **INFORMS Journal on Applied Analytics.** Vol 51, Number 4. https://doi.org/10.1287/inte.2021.1079

20. *Xu, X.,* **Chen, Y.** *and Kou, S.* (2021). Discussion on "Text Selection". ***Journal of Business & Economic Statistics,*** 39:4, 883-887. 10.1080/07350015.2021.1942890*.*

21. *Xu, X.,* **Chen, Y.,** *Goude, Y. and Yao, Q.* (2021). Day-ahead Probabilistic Forecasting for French Half-hourly Electricity Loads and Quantiles for Curve-to-Curve Regression. ***Applied Energy****.* Volume 301, 1 November 2021, 117465. https://doi.org/ 10.1016/j.apenergy.2021.117465 (Impact factor: 13.8. SJR: 2.902)

22. **Chen, Y.,** *Koch, T., Zakiyeva, N., and Zhu, B.* (2020). *Modeling and Forecasting the Dynamics of the Natural Gas Transmission Network in Germany with the Demand and Supply Balance Constraint.* ***Applied Energy****. Volume 278, 115597.* https://doi.org/ 10.1016/j.apenergy.2020.115597 (Impact factor: 13.8. SJR: 2.902)

23. *Xu, X.,* **Chen, Y.,** *Chen, C.W.S and Lin, X.* (2020)*. Adaptive Log-Linear Zero-Inflated Generalized Poisson Autoregressive Model with Applications to Crime Counts Data.* ***Annals of Applied Statistics****. Volume 14, 1493-1515.* https://doi.org/10.1214/20-AOAS1360

24. **Chen, Y.,** *Koch, T., Lim, K.G., Xu, X. and Zakiyeva, N.* (2020)*. A review study of functional autoregressive models with application to energy forecasting.* ***WIREs Computational Statistics****. https://doi.org/10.1002/wics.1525*

25. *Zhu, Y., Han, X. and* **Chen, Y.** (2020)*. Bayesian estimation and model selection of threshold spatial Durbin model.* ***Economics Letters****.* Volume 188, March 2020, 108956*,* https://doi.org/10.1016/j.econlet.2020.108956

26. **Chen, Y.,** *Giudici, P., Misheva, B.H., and Trimborn, S.* (2020)*. Lead Behaviour in Bitcoin Markets. Risks.* ***Risks****.* Volume *8*(1), 4; https://doi.org/10.3390/risks8010004*.*

27. **Chen, Y.,** *Koch, T. and Xu, X.* (2020)*. Day-Ahead High-Resolution Forecasting of Natural Gas Demand and Supply in Germany with a Hybrid Model.* ***Applied Energy****,* Volume 262, 15 March 2020, 114486 https://doi.org/10.1016/j.apenergy.2019.114486 (Impact factor: 13.8. SJR: 2.902)

28. *Lin, L.Ch.,* **Chen, Y.,** *Pan, G. & Spokoiny, V.* (2019)*. Efficient and semi-positive definite pre-averaging realized covariance estimator. Accepted by* ***Statistica Sinica.***

http://www3.stat.sinica.edu.tw/ss_newpaper/SS-2017-0489_na.pdf, DOI number: 10.5705/ss.202017.0489.

29. **Chen, Y.,** Chua, W.S. & Härdle, W.K (2019). Forecasting Limit Order Book Liquidity Supply-Demand Curves with Functional AutoRegressive Dynamics, ***Quantitative Finance***. 19(9):1473-1489. https://dx.doi.org/10.1080/14697688.2019.1622290

30. **Chen, Y.**, Marron, J.S. & Zhang,J. (2019). Modeling Seasonality and Serial Dependence of Electricity Price Curves with Warping Functional Autoregressive Dynamics, ***Annals of Applied Statistics.*** 13 (3): 1590-1616. http://dx.doi.org/10.1214/18-AOAS1234

31. Lim, K.G., **Chen, Y.** & Yap, N (2019), Intraday Information from S&P 500 Index Futures Options, ***Journal of Financial Markets*** 42:29-55. https://dx.doi.org/10.1016/J.FINMAR.2018.10.001

32. **Chen, Y.**, Niu, L., Chen, R.B. & He, Q. & (2019). Sparse-Group Independent Component Analysis with Application to Yield Curves Prediction. ***Computational Statistics and Data Analysis*** 133 : 76 - 89 . https://dx.doi.org/10.1016/J.CSDA.2018.08.027

33. Guo, J. & **Chen, Y.** (2019). An L2-norm based ANOVA test for the equality of weakly dependent functional time series. ***Statistics and its Interface*** 12(1):167-180. https://dx.doi.org/10.4310/SII.2019.V12.N1.A14

34. **Chen, Y.**, Härdle, W.K., He, Q. & Majer, P. (2018). Risk Related Brain Regions Detection and Individual Risk Classification with 3D Image FPCA, ***Statistics and Risk Modeling*** 35(3-4):89-110. https://dx.doi.org/10.1515/STRM-2017-0011

35. **Chen, Y**., Han, Q. & Niu, L.. (2018), Forecasting the Term Structure of Option Implied Volatility: The Power of an Adaptive Method, ***Journal of Empirical Finance***49:157-177. https://dx.doi.org/10.1016/J.JEMPFIN.2018.09.006

36. **Chen, Y.**, Chua, W.S. & Koch, T.(2018). Forecasting day-ahead high-resolution natural-gas demand and supply in Germany. ***Applied Energy***, 228, 1091-1110. https://dx.doi.org/10.1016/J.APENERGY.2018.06.137

37. **Chen, Y.**, & Li, B. (2017). An Adaptive Functional Autoregressive Forecast Model to Predict Electricity Price Curves. ***Journal of Business & Economic Statistics***, 35(3), 371-388. https://dx.doi.org/10.1080/07350015.2015.1092976

38. Xu, M., Li, J., & **Chen, Y.** (2017). Varying Coefficient Functional Autoregressive Model with Application to the US Treasuries. ***Journal of Multivariate Analysis***, 159, 168-183. https://dx.doi.org/10.1016/J.JMVA.2017.05.003

39. Niu, L., Xu, X., & **Chen, Y.** (2017). An Adaptive Approach to Forecasting Three Key Macroeconomic Variables for Transitional China. ***Economic Modelling***, 66, 201-213. https://dx.doi.org/10.1016/J.ECONMOD.2017.07.001

40. Weisman, O., Pelphrey, K. A., Leckman, J. F., Feldman, R., Lu, Y., Chong, A., **Chen, Y.,** Monakhov, M., Chew, S. H. & Ebstein, R. P. (2015). The Association between 2D: 4D Ratio and Cognitive Empathy is Contingent on a Common Polymorphism in the Oxytocin Receptor Gene (OXTR rs53576). ***Psychoneuroendocrinology***, 58, 23-32. https://dx.doi.org/10.1016/J.PSYNEUEN.2015.04.007

41. **Chen, Y.**, & Spokoiny, V. (2015). Modeling Nonstationary and Leptokurtic Financial Time Series. ***Econometric Theory***, 31(4), 703-728. https://dx.doi.org/10.1017/S0266466614000528

42. Chen, R. B., **Chen, Y.**, & Härdle, W. K. (2014). TVICA—Time Varying Independent Component Analysis and Its Application to Financial Data. ***Computational Statistics & Data Analysis,*** 74, 95-109.

43. **Chen, Y.**, & Niu, L. (2014). Adaptive Dynamic Nelson-Siegel Term Structure Model with Applications. *Journal of Econometrics*, 180(1), 98-115.

44. **Chen, Y.**, Li, B., & Niu, L. (2013). A Local Vector Autoregressive Framework and its Applications to Multivariate Time Series Monitoring and Forecasting. *Statistics and Its Interface*, 6(4), 499-509.

45. **Chen, Y.**, & Lu, J. (2012). Value at Risk Estimation. In *Handbook of Computational Finance*, 307-333. Springer, Berlin, Heidelberg.

46. **Chen, Y.**, & Li, B. (2011). Forecasting Yield Curves in an Adaptive Framework. *Central European Journal of Economic Modelling and Econometrics*, 3(4), 237-259.

47. **Chen, Y.**, Härdle, W. K., & Pigorsch, U. (2010). Localized Realized Volatility Modelling, *Journal of the American Statistical Association*, 105(492), 1376-1393.

48. **Chen, Y.**, Härdle, W., & Spokoiny, V. (2010). GHICA—Risk Analysis with GH Distributions and Independent Components. *Journal of Empirical Finance*, 17(2), 255-269.

49. **Chen, Y.**, Härdle, W., & Jeong, S. O. (2008). Nonparametric Risk Management with Generalized Hyperbolic Distributions. *Journal of the American Statistical Association*, 103(483), 910-923.

50. **Chen, Y.**, Härdle, W., & Spokoiny, V. (2007). Portfolio Value at Risk Based on Independent Component Analysis. *Journal of Computational and Applied Mathematics*, 205(1), 594-607.

51. **Chen, Y.**, Härdle, W., & Schultz, R. (2005). Prognose mit nichtparametrischen Verfahren. In *Prognoserechnung* (pp. 113-124).

Selected Working Papers in Quantum Computing, FinTech, RegTech, Energy, Precision Medicine

1. *Chen, Y., Koch, T., Peng, H. and Zhang, H. (2025). Benchmarking of Quantum and Classical Computing in Large-Scale Dynamic Portfolio Optimization Under Market Frictions. https://arxiv.org/abs/2502.05226*

2. *Lu, J., Peng, H. and **Chen, Y.** (2025). Neural Quantum Digital Twins for Many-Body Quantum Criticality Simulation and Optimal Annealing Schedule Design. arXiv:2505.15662*

3. *Koch, T., Bernal Neira, D. E., **Chen, Y.**, Cortiana, G., Egger, D. J., Heese, R., Hegade, N. N., Gomez Cadavid, A., Huang, R., Itoko, T., Kleinert, T., Maciel Xavier, P., Mohseni, N., Montanez-Barrera, J. A., Nakano, K., Nannicini, G., O'Meara, C., Pauckert, J., Proissl, M., Ramesh, A., Schicker, M., Shimada, N., Takeori, M., Valls, V., Van Bulck, D., Woerner, S., & Zoufal, C. Quantum Optimization Benchmarking Library: The Intractable Decathlon. https://arxiv.org/abs/2504.03832*

4. *Wang, J., **Chen, Y.**, and Giudici, P. (2025) Group Shapley with Robust Significance Testing and Its Application to Bond Recovery Rate Prediction. https://arxiv.org/abs/2501.03041*

5. *Liu, Y., **Chen, Y.**, Pan, G., Wang, W., Liao, W. C., Thian, Y. L., Chee, C.E. and Anastassiades, C. P. (2021). Spectral Machine Learning for Pancreatic Mass Imaging Classification. arXiv preprint arXiv:2105.00728.*

6. *C**hen, Y.**, Wang, Z., Zhang, G. and Zhou, C. (2021) Optimal Execution with Hidden Orders Under Self-Exciting Dynamics. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3932957*

7. *Chen, Y., Horst, U. and Tran, H.H. (2020) Optimal Trade Execution Strategy and Implementation with Deterministic Market Impact Parameters, https://*

arxiv.org/abs/1912.06426

8. *Zhang, G. and* **Chen, Y.** *(2020) Reinforcement Learning for Optimal Market Making with the Presence of Rebate.*
   https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3646753 .

Teaching

1. DSE4211/QF4211 Digital Currencies, SEM2 AY2024-2025. (core UG)
2. DSA5205 Data Science in Quantitative Finance, SEM1 AY2020-2023; Special Term2 AY2023-2024
3. QF5208 AI and Fintech, SEM2 AY2019/20.
4. QF5210 Financial Time Series, SEM1 AY2019-2023, AY2024-2025, AY2025-2026. (core G)
5. QF5203 Risk Management, SEM2 AY2018/19. (core G)
6. FE5225 Machine Learning and Fintech, SEM2 AY2018/19.
7. ST4245 Statistical Methods for Finance, SEM1 AY2018/19.
8. FE5209 Financial Econometrics, SEM1 AY2015-2023. (core G)
9. DSC2008 Business Analytics: Data and Decisions (Co-teach with Associate Prof. QUEK Ser Aik at NUS Business School, SEM1 AY 2011/12, AY 2012/13-2017/18. core UG)
10. ST5218 Advanced Statistical Methods in Finance, SEM2 AY 2010/11, SEM2 AY2016/17.
11. ST5209 Analysis of Time Series Data: SEM2 AY2009/10
12. ST3233 Applied Time Series Analysis: SEM1 AY2009/10
13. ST3240 Multivariate Statistical Analysis, SEM2 AY 2007/08
14. ST4232 Nonparametric Statistics, SEM1 AY 2007/08
15. Lectures and tutorials on Statistics of Financial Markets in Humboldt-Universität zu Berlin

Postgraduate Students

Current PhD/Graduate Supervision
1. NGUYEN Thi Hoa. PhD candidate 2025 (Fall) intake. AIDF Digital FinTech scholarship.
2. ZHOU Yongqi. PhD candidate 2024 (Fall) intake. AIDF Digital FinTech scholarship.
3. ZHANG Hongrui. PhD candidate 2024 (Spring) intake. RMI scholarship.
4. GAO Wenhan. PhD candidate 2023 (Fall) intake. AIDF Digital FinTech scholarship.
5. LIU Kailiang. PhD candidate 2022 (Fall) intake. IRP scholarship.
6. PENG Hanqiu. PhD candidate 2022 (Fall) intake. NRF QEP scholarship.

Graduated PhD students:
7. Hannah LAI Lan Huong. PhD thesis submitted in Aug 2025.
8. ZHANG Yijiong. PhD graduated in 2024. *Complex Econometric Modeling and Robust Optimization: The Cases Of Spatial Networks, Text Data, and Stock Market Dynamics.* RF at the NUS Research Institute Chongqing
9. JIANG Yipeng. PhD graduated in 2024 (Co-supervision with Prof DAI Min)
10. LI Jintao. PhD graduated in 2024 (Co-supervision with Prof DAI Min)
11. Hitoshi IWASAKI. PhD graduated in 2023. *Statistical Modelling for Text Analytics*

with Applications to Finance, Accounting and Economics. Portfolio Manager at ACG Management

12. *XU Xiuqin. PhD graduated in 2022. High-Dimensional Nonstationary Time Series Modeling with Functional Data Analysis and Deep Learning.* McKinsey (Singapore).

13. *ZHANG Ge. PhD graduated in 2022. Reinforcement Learning for Financial Stochastic Control: Optimal market making with rebate and optimal liquidation withhidden order.* Susquehanna International Group, LLP (SIG) Australia

14. *LIU Peng. PhD graduated in 2021. Sparse statistical learning for High-dimensional text mining and time Series forecasting.* Standard Charted Singapore & Singapore Management University (Assistant Professor practice). * Best Graduate Researcher Award 2020 in the Department of Statistics & Applied Probability

15. *TRAN Hoang Hai. PhD graduated in 2021. Applied stochastic control in optimal liquidation strategies.* Grasshopper Asia (Singaporean proprietary trading firm)

16. *LEI Hao. PhD graduated in 2021. Regularized probabilistic topic Modeling.* (Co-supervised with Prof. Yingcun Xia). IRP scholarship. Southern Ridges Capital.

17. *Nazgul ZAKIYEVA. PhD graduated in 2020. High dimensional time series modelling with application to energy network data.* SINGA scholarship. Research Fellow in Zuse Institute Berlin, Germany (until Dec 2024). Assistant Professor at Waseda University, Japan

18. *XU Xiaofei. PhD graduated in 2020. Statistical modeling for high-dimensional and non-stationary time series.* NUS research scholarship. Assistant Professor in Waseda University, Japan (until Jan 2023). Assistant Professor at Wuhan University, China.

19. *CHUA Wee Song. PhD graduated in 2018. High-dimensional time series modelling and forecasting with application to high-frequency financial and energy data.* NUS research scholarship. DBS Bank. * Best Graduate Researcher Award 2018 in the Department of Statistics & Applied Probability

20. *ZHANG Jiejie. PhD graduated in 2018. Statistical Modeling for Complex Functional and Network Time Series Data.* NUS research scholarship.

21. *HE Qiang. PhD graduated in 2015. Adaptive functional data analysis.* NUS research scholarship. UOB Bank.

22. LI Bo. PhD graduated in 2014. *Non-stationary high dimensional data Analysis.* NUS research scholarship.

23. LU Jun. PhD graduated in 2012. *Forecasting realized covariance in an adaptive framework.* NUS research scholarship.

24. LIN Nan. PhD graduated in 2011. *A penalized likelihood approach in covariance graphical model selection.* (Co-supervised with Prof. Chenlei Leng). NUS research scholarship.

Graduated MSc students:

1. GAO Wenhan. MSc graduated in 2023. NUS Department of Statistics & Data Science. Keyword Assisted Topic Modeling of Chinese Central Government Documents. Self-financed.

2. KLOTZ Stefan. MSc graduated in 2016. Technische Universität München. International yield curve prediction with common functional principal component analysis.

3. SONG Chaoran. MSc graduated in 2014. NUS Department of Statistics and Applied Probability. Risk-Neutral distribution and alternative credit exposure modeling, (Co-supervised with Prof. Lim Kian Guan). Self-financed.

4. WANG Ting. Full-time RA till September 2014 under the DSO IDP (Internally Directed Project). Master degree holder.

5. WOBST Michael. MSc graduated in 2011. Technische Universität München. Realized covariance modeling with adaptive approach.
6. FU Jingyu. MSc graduated in 2010. Modeling multivariate volatilities via most predictable factor. (Co-supervised with Prof. Xia Yingcun). NUS research scholarship.

Research Fellows/Research Assistant:

1. Hannah LAI Lan Huong. Full-time RF from Aug 2025 under HTX project at the NUS Math Dept.
2. Dr. Tracy ZHOU Lei. Full-time RF from Feb 2024 under UP5 at the NUS Asian Institute of Digital Finance and under Innovations at the NUS RMI.
3. Dr. Paolo RECCHIA. Full-time RF from Oct 2024 under Whitespace at the NUS Asian Institute of Digital Finance.
4. Dr. LU Jianlong. Full-time RF from Oct 2024 under QEP2.0 at the NUS Department of Mathematics.
5. Mr. HU Haming. Full-time Research Associate from Oct 2024 under Whitespace at the NUS Asian Institute of Digital Finance and under HTX project at the NUS Math Dept.
6. Ms. NGUYEN Thi Hoa. Full-time Research Associate from June 2024 under UP5 at the NUS Asian Institute of Digital Finance.
7. Mr. Maximilian SCHICKER. Full-time RA from Nov 2024 under QEP2.0 at the NUS Department of Mathematics.
8. Dr. ZHANG Yijiong. Full-time RF from Oct 2024 under the NUS Research Institute Chongqing.

Previous Research Fellows/Research Assistant:
1. Dr. WANG Jingyi. Full-time RF from June 2024 to Feb 2025 under UP5 at the NUS Asian Institute of Digital Finance. Assistant Vice President at OCBC.
2. Dr. LI Wei. Full-time RF from March 2022 to Feb 2024 under the ONE project, IORA. (Special Associate Professor in Harbin Institute of Technology, China)
3. Dr. Tracy ZHOU Lei. Full-time RF from Feb 2023 to Feb 2024 under NUS (Chongqing)Research Institute (RF in NUS AIDF/RMI)
4. Dr. LIU Xiaoyu. Full-time RF from September 2020 under Math/DSO project. (Assistant Professor in Jinan University, China)
5. Dr. XU Xiaofei. Full-time RA from Sepetember 2019 to May 2020 under Tier 1 MOE project Data-driven adaptive count time series modelling with applications to non-stationary crime data and dengue fever data. Full-time RF from May 2020 to December 2020 under RMI. (Assistant Professor in Waseda University, Japan)
6. Dr. Simon TRIMBORN. Full-time RF from June 2018 to May 2021 under Tier 1 MOE project on Augmented Machine Learning and Network Analysis with Applications to Cryptos and Blockchains. (Assistant Professor in City University of Hong Kong)
7. Dr. GUO Jia. Full-time RF from August 2016 to April 2017 under the DSO HESTIMO project. (Research Fellow in University of Melbourne, Australia)
8. Dr. XU Xiuqin. Full-time RF from Jan 2022 to Aug 2022 in Risk Management Institute. (McKinsey Singapore)
9. Dr. ZHANG Chen. Full-time RF from July 2021 to June 2022 under NUS (Chongqing) Research Institute (Research Fellow in Singapore Management

University)

10. Mr. LIU Kailiang. Full-time RA from June 2021 to July 2022 under NUS (Chongqing) Research Institute. (PhD candidate in NUS)

11. Mr. ZHANG Hongrui. Full-time RA from September 2022 to Jan 2024 under NRF grant. (PhD candidate in NUS)

12. Dr. CHEN Jiazi. Full-time RF from June 2022 under NUS (Chongqing) Research Institute.

Research Grants and Projects

1. HTX grant on AI-Driven Analysis Of Human Performance. Status: PI. Duration: 1 October 2025 to 31 March 2027.
2. White Space Project Quantum speed-up in FinTech Algorithms and Optimization funded under the Financial Sector Development Fund (FSDF), by the Monetary Authority of Singapore and the Asian Institute of Digital Finance. Status: PI. Duration: 1 March 2024 to 30 June 2025.
3. National Research Foundation grant on Computer science approaches to quantum computing for finance. Status: Co-I. Duration: 1 April 2022 to 31 May 2025.
4. National Research Foundation grant on aidF's Upstream Research Programme. Subproject UP#5: Credit recovery efficiency analytics. Status: PI. Duration: 1 July 2020 to 30 June 2025 (Co-I from 1 Jan 2023 – 30 June 2023).
5. NUS GAP Project funding. A Data-Driven Bunker Planner System. Status: Co-I. Duration: 1 January 2023 to 31 December 2023. (SG Patent Application No. 10202203430W)
6. NUS FoS-FASS joint grant. Regime-Switching Markov Decision Process with Applications in Digital FinTech. Status: PI. Duration: 1 January 2023 to 30 June 2024.
7. NUS Tier 1 RGF Grant Deep State Space Models for Non-stationary Time Series. Status: PI. Duration: March 2022 – Dec 2024.
8. Research grant on Personalised Heat Strain Modelling In Uncompensable Conditions awarded by DSO. Status: PI. Duration: Dec 2020 – June 2022.
9. NUS-SGX Project on Ai and Data-driVen Incentive SystEm (ADVISE). Duration: September 2019 – March 2021.
10. NUS-UPS Research Project on AI Powered Forecasting. Status: PI. Duration: September-November 2019.
11. NUS Tier 1 RGF Grant on Data-driven adaptive count time series modelling with applications to non-stationary crime data and dengue fever data. Status: PI. Duration: July 2019 - June 2020.
12. NUS Tier 1 RGF Grant on Sentiment Analytics and Predictive Analytics in Digital Economy. Status: PI. Duration: Jan 2019- Dec 2019.
13. Research grant by NSCC (National Supercomputing Centre Singapore): AI and Data Driven Analytics on Complex data in Financial Markets: Limit order book, cryptocurrency and blockchain, and sentiment analysis. Status: PI. Duration: January 2019 – December 2019.
14. HU-NUS Joint Research Project 2018. Augmented Intelligence in Digital Society, Status: Lead PI in NUS. Duration: 15 November 2018 – 14 February 2020.
15. Research grant by Risk Management Institute: Sentiment Analysis of Financial News with AI and Data Science. Status: PI. Duration: August 2018 – July 2021.
16. NUS Tier 1 RGF Grant associated with the Research Fellow (RF) position to be co-funded by the Research Scholarship Block (RSB) and the MOE Co-funding Scheme (CFS) ("RSB-funded RF") on Augmented machine learning and network analysis with applications to cryptos and blockchains. Status: PI. Duration: July 2018 – June 2021.
17. Research grant issued by Institute of Data Science: Power of Web Text Data and Functional Data in Trend Forecast, Decision Making and Managerial Improvement. Status: PI. Duration: June 2017 – May 2019.
18. NUS Tier 1 RGF Grant on Functional Time Series Data Analysis: High Dimensionality, Non-stationarity and Sparsity. Status: PI. Duration: Oct 2016- Sep 2019.
19. Research grant on Statistical Models for estimating personalised heat strain in soldiers

engaged in high intensity physical activities awarded by DSO. Status: PI. Duration: April 2016- October 2018.

20. Research grant on Individualised Heat Strain Modelling awarded by DSO IDP (Internally Directed Project). Status: Co-PI (PI: Dr. Seng Kok Yong, DSO National Laboratories, Singapore). Duration: February 2014 – September 2014.

21. Research grant on Equity Market Microstructure and High Frequency Trading in Singapore awarded by Financial Sector Development Fund of MAS. Status: Collaborator (PI: Dr. Sergey Ivliev, Perm State University, Russia). Duration: December 2012 to December 2013.

22. Research grant 71273007 awarded by National Natural Science Foundation of China (中国国家自然科学基金委员会) on Open economy yield curve modeling and applications: RMB appreciation and the financial crisis. Status: Collaborator (PI: Associate Professor Niu Linlin, Xiamen University, China). Duration: January 2013 to December 2016.

23. NUS Tier 1 RGF Grant on Realized Covariance: Modeling and Application. Status: Principal Investigator. Duration: November 2011 to October 2014.

24. RMI Research Grant (awarded by MAS/NUS) on Adaptive Risk Management. Status: Co-Principal Investigator (PI: Professor Xia Yingcun). Duration: July 2009 toOctober 2010.

25. RMI Research Grant (awarded by MAS/NUS) on Adaptive Time Series Models for Irregularly Spaced and Ultra-High Frequency Financial Data. Status: Principal Investigator. Duration: May 2009 to April 2011.

26. NUS Start-Up Grant on Accounting for Non-stationary of Heavy-Tailed Time Series. Status: Principal Investigator. Duration: July 2007 to June 2010.

Selected Conferences/Workshops Organisation and Talks

1. The 28th International Conference on Computational Statistics (COMPSTAT 2028) in Olomouc, Czech Republic 29th August and 1st September 2028. Scientific committee

2. The 13th World Congress of the Bachelier Finance Society in Bologna, Italy 29 Jun 2026 – 3 July 2026. Scientific program committee.

3. The 13th IASC-ARS conference in Ho Chi Minh City, Vietnam 4 Dec 2025 – 6 Dec 2025. Co-chair of Scientific program committee.

4. NeurIPS 2025workshop on Generative AI in Finance in San Diego, US, December 6/7. Program committee.

5. The 6th ACM International Conference on AI in Finance (ICAIF '25) Workshop on Rethinking Financial Time-Series: Foundations, Frontiers, and Future Directions. Invited speaker. Singapore, 15 – 18 November 2025

6. The IX Latin American Conference on Statistical Computing (LACSC 2025) in Valparaíso, Chile. 4 Nov 2025 – 7 Nov 2025. Scientific program committee.

7. The 9th ISM-ISCT-NII-ZIB-NUS-MODAL Workshop on Optimization and Machine Learning for Data Science and Future Computing, Tokyo, 24-29 September 29, 2025. Organizer and invited speaker.

8. The Japanese Association of Financial Econometrics and Engineering (JAFEE), the

Society for Financial and Insurance Econometrics (SOFINE) and the Institute of Statistical Mathematics (ISM) International symposium on Advances in Quantitative Finance and Actuarial Science, Tokyo, September 20-21, 2025. Invited speaker.

9. The Quantitative Finance Conference 2025 in NUS, Singapore. 31 July 2025 – 1 Aug 2025. Scientific program committee

10. Cluster Chair for the Finance Section of 2025 INFORMS International Meeting. July 20-23, 2025, Singapore.

11. The 3rd Joint Conference on Statistics and Data Science in Hangzhou, China, 11 July 2025 – 13 July 2025. Invited talk

12. The SIS 2025 Statistics for innovation in Genova, Italy 16 Jun 2025 – 18 Jun 2025. Invited talk.

13. The Research Metrics Workshop in Institute of Statistical Science Building, Taipei, Sinica, 26 Feb 2025 – 27 Feb 2025. Invited talk.

14. Program Committee for AAAI-25 Workshop on AI for Social Impact: Bridging Innovations in Finance, Social Media, and Crime Prevention at the 39th Annual AAAI Conference on Artificial Intelligence, March 3, 2025, Philadelphia, Pennsylvania.

15. Frontiers of Functional Data Analysis: Challenges and Opportunities in the Era of AI, Singapore, 19 Aug 2024–13 Sep 2024. To be hosted by the NUS Institute for Mathematical Science. Co-organiser. https://ims.nus.edu.sg/events/frontiers-of-functional-data- analysis-challenges-and-opportunities-in-the-era-of-ai/.

16. The 8th ZIB-IMI-ISM-NUS-RIKEN-MODAL-NHR Workshop on Next Generation Computing and Algorithms in the Digital Era on 12-16 Aug 2024. Co-organizer

17. The ETH-NUS-Columbia FinsureTech Conference 2024 in Zurich. Co-organizer.

18. The 3rd Quantum Computing Workshop AI Optimization and Forecasting across Industries: Digital and Quantum Computing. April 2024 – 12 April 2024. Organizer. https://blog.nus.edu.sg/matcheny/quantum-computing-and-industry-ai/

19. Algorithmic Trading Workshop Unleash your trading potential with Optiver's experts. 12 Jan 2024 – 13 Jan 2024. Organizer. https://www.aidf.nus.edu.sg/algorithmic-trading-workshop/

20. The 7th ZIB-IMI-ISM-NUS-RIKEN-MODAL-NHR Workshop 2023 on Future Algorithms and Applications 2023, Berlin, 27-30 September 2023. Hosted by Zuse Institute Berlin. Co-organiser. https://optimizationworkshop2023.zib.de/index.html

21. The Cambridge-NUS workshop on Markovian Decision Process and Reinforcement Learning in Cambridge University, UK on 22-23 September 2023. Co-organizer. https://www.janeway.econ.cam.ac.uk/event/markov-decision-process-and-reinforcement-learning-workshop

22. The 64th ISI World Statistics Congress (WSC2023) in Ottawa, Canada on 16–20 July 2023. Scientific Programme Committee Member. https://www.isi2021.org/ WSC-2023/

23. Sixteenth Annual Risk Management Conference on 31 July 2023. Organizing committee. https://rmi.nus.edu.sg/events/sixteenth-annual-risk-management-conference/

24. AAAI 2023 Inaugural Summer Symposium on AI for FinTech on 18-19 July 2023. Co-organizer. https://aaai.org/conference/summer-symposia/summer-series-2023/

25. The ETH-NUS FinsureTech Conference 2023 on 28 June in Zurich. Co-organizer. https://finsuretech.ethz.ch/events/eth-nus-finsuretech-conference-.html

26. Tech-driven Finance Forum. 23 June. Organizer. https://www.aidf.nus.edu.sg/tech-driven-finance-forum/

27. NUS-Waseda Workshop on Complex Data Science, Singapore, 13-19 March 2023. Hosted by NUS Math Department and Risk Management Institute. https://blog.nus.edu.sg/matcheny/nus-waseda-workshop-2023/?et_fb=1&PageSpeed=off. Co-organiser.

28. Energy Workshop on Resilient and Sustainable Energy System Transition: Challenges and Opportunities in Digital Age, Singapore, 6 March 2023. Jointly hosted by NUS Math, Asian Institute of Digital Finance, Energy Studies Institute and AGGN. https://blog.nus.edu.sg/matcheny/energy-workshop-2023 Co-organiser.

29. Quantum Computing workshop on Accelerating Industrial Innovation withQuantum Computing and Data Science, Singapore, 8 March 2023. Jointly hostedby NUS Math, Asian Institute of Digital Finance, Centre of Quantum Technology, and Institute of Operations Research and Analytics. https://blog.nus.edu.sg/matcheny/ quantum-computing-workshop-2023. Co-organiser.

30. Digital x Green Workshop, Tainan, 1 March 2023. Hosted by National Cheng Kung University. https://sites.google.com/gs.ncku.edu.tw/digitalxgreenworkshop/. Co-organiser.

31. IASC-ARS Interim Conference "The Interplay between Statistical Computing and AI" on 12-13 Dec 2022. Scientific Programme Committee Member.

32. Fifteenth Annual Risk Management Conference in Singapore on 3 August 2022. Scientific Programme Committee Member.

33. AIDF-SKKU Conference in Singapore on 12-13 December 2022. Scientific Programme Committee Member.

34. Frontier in FinTech and Quantum Computing 2022 jointly hosted by the Centre for Quantitative Finance, the Risk Management Institute and the NUS Chongqing Research Institute on 21-22 Feb, 2022. Organiser. https://rmi.nus.edu.sg/events/ workshop-frontiers-in-fintech-and-quantum-computing-2022/

35. NUS Quantitative Finance Joint Seminar Series. Co-organize Webinar Centre for Quantitative Finance (CQF), Risk Management Institute (RMI) and NUS Chongqing Research Institute, NUS. https://www.math.nus.edu.sg/cqf/events/seminars/nus-quantitative-finance-seminar/

36. 2022 IMS Annual Meeting to be hosted by London School of Economics and Politics on June 27 - 30, 2022. Conference Scientific Committee member.

37. IASC-ARS2022, the 12th IASC-ARS conference in Kyoto. Member in Scientific Program Committee.

38. CompStat 2020, http://www.compstat2020.org/ the 24th International Conference on Computational Statistics to be hosted at the University of Bologna, Italy, 25-28 August 2020 Invited Session: Advanced Machine Learning. Co-Organizer.

39. Workshop on AI and Data Science http://www.stat.ncku.edu.tw/AIandDataScience/ to be hosted by the National Cheng Kung University on Nov. 21, 2019, Co-organizer and

invited speaker.

40. AI-powered Sentiment Analysis Workshop to be hosted by NUS 14 November 2019 . Main organizer, https://rmi.nus.edu.sg/events/AIWorkshop/AIPoweredWorkshop.html

41. Research Metrics Workshop to be hosted by NUS on 15 November 2019. Main organizer, http://ww1.math.nus.edu.sg/events/2019-15-16-Nov-ResearchMetricsWorkshopProgram.pdf

42. STAT OF ML (Statistics of Machine Learning) conference https://barunik.github.io/Prague2019/ hosted by the Czech Academy of Sciences from September 30 to October 1, 2019. Speaker.

43. HUB-NUS Workshop on Fintech hosted by NUS-RMI 21 Mar 2019, https://rmi.nus.edu.sg/events/HUBNUS2019/HUBNUSfintechworkshop.html, main organizer.

44. Quantitative Finance Thematic Program hosted by NUS-IMS 18 - 22 Mar 2019 & 22 Jul - 31 Aug 2019, https://ims.nus.edu.sg/events/2019/qfinance/index.php. Co-chair of Organizing Committee.

45. International Scientific Conference Economics of Digital Transformation (EDT) 2019 DIGITOMICS hosted by Faculty of Economics and Business University of Rijeka on 2-4 June 2019. Keynote speaker.

46. The JAFEE (Japan Association of Financial Econometrics and Engineering) International Conference on Financial Engineering at the University of Tokyo on August 24th and 25th 2018 in Tokyo, Japan. Plenary speaker.

47. FERM 2018: Organized invited session "Machine Learning and Fintech" at 2018 International Symposium on Financial Engineering and Risk Management (FERM 2018) and presented "Topic sentiment asset pricing model with DNN supervised learning".

48. The 27th South Taiwan Statistics Conference at National Cheng Kung University, Tainan, June 2018. Organized international session.

49. Mini-workshop on Digital Manufacturing between Faculty of Science and Institute of Operation Research and Analytics in May 2018. Organizer.

50. The 6th NUS-USPC workshop on Machine Learning and FinTech between the "Laboratoire de Probabilités et Modèles Aléatoires" at University Paris Diderot/Sorbonne Paris Cité and the Centre for Quantitative Finance (CQF) and Risk Management Institute (RMI) at the National University of Singapore, April 2018. Co-organizer.

51. The 9th conference of the Asian Regional Section (ARS) of the International Association for Statistical Computing (IASC), National University of Singapore from December 17th to 19th, 2015. Co-chair of international organizing committee.

52. Applicable Nonparametrics organized by CASE in Berlin, Germany, October 2013. Organized a session on Challenges in Finance. I also served in the program committee.

53. International Symposium on Forecasting organized by IIF (International Institute of Forecasters) in Seoul, Korea, June 2013. I have been invited to organize an invited session on Forecasting with High Frequency Data.

54. Thematic Program on Financial time series analysis: high-dimensionality, non-stationarity and the financial crisis at Institute for Mathematical Sciences, National

University of Singapore, 1-22 June 2012. Co-organizer.

55. The Second Singapore Conference on Statistical Science organized by Department of Statistics & Applied Probability in September 2011. Co-organizer.

56. NUS IMS workshop on Recent Advances in Nonlinear Time Series Analysis in February 2011. Co-organizer.

57. The Second Singapore Conference on Quantitative Finance organized by Saw Centre for Quantitative Finance, Institute for Mathematical Sciences, and Department of Mathematics in March 2010.

58. SEED. Initiate and organize International Online Seminar Series: Statistics maschinElEarning Datascience: https://seed.stat.nus.edu.sg/.

59. CBS. Initiate and organize Cryptocurrency and Blockchain Seminar (CBS) series: https://cbs.stat.nus.edu.sg/.

60. CASE Distinguished Lecture Series on Dynamic Models of Implied Volatility by Prof. Stewart Hodges (Warwick Business School, United Kingdom) organized by Centre for Applied Statistics and Economics, Humboldt-Universität zu Berlin in January 2005.

61. CASE Distinguished Lecture Series on Credit Risk Modelling by Prof. Dr. Ludger Overbeck (University Giessen, Germany) and Prof. Dr. Marlene Müller (Fraunhofer Institute, Germany) organized by Centre for Applied Statistics and Economics, Humboldt-Universität zu Berlin in January 2004.

62. CASE Distinguished Lecture Series on Inverse Problems in Financial Modelingby Prof. Rama Cont (Centre de Mathématiques Appliquées, Ecole Polytechnique, France) organized by Centre for Applied Statistics and Economics, Humboldt- Universität zu Berlin in January 2003.