Stephen Chan

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Academic Positions

American University of Sharjah, Department of Mathematics and Statistics, Sharjah, UAE
Associate Professor in Financial Mathematics and Statistics 08/2023 – Present
Assistant Professor in Financial Mathematics and Statistics 09/2017 – 08/2023

- Awarded seven (PI) AUS Faculty Research Grants (FRG), totaling over 750,000 AED.
- Developing and launching the new Bachelor of Science in Data Science program.
- Published three industry research reports on DeFi for the Society of Actuaries (SOA).
- Awarded grants from both the Beijing National Science Foundation (BNSF) and the Swiss National Science Foundation (SNSF).

University of Manchester, School of Mathematics, Manchester, UK. 03/2016 – 09/2017
EPSRC Doctoral Prize Research Fellow
Project title: New financial risk measures

- Developed a new financial risk measure model.
- Secured £60,000 in funding from the UK Engineering and Physical Sciences Research Council (EPSRC).

Education and Research

University of Manchester, School of Mathematics, Manchester, UK. 09/2012 – 08/2016
PhD. in Financial Mathematics.
Receiving the DTA EPSRC Scholarship funding.
PhD Title: **"Some contributions to statistical modelling in finance"**, Supervised by Dr. Saralees Nadarajah

University of Manchester, School of Mathematics, Manchester, UK. 09/2011 – 09/2012
Mathematical Finance MSc. Graduated With Distinction (80%)
Thesis title: **"Estimation methods for Value at Risk"**, supervised by Dr. Saralees Nadarajah

Industrial Experience

Society of Actuaries (Member of Project Oversight Group on Decentralized Finance for Actuaries)
Illinois, USA, 2020-Present.
Published three industry research reports on decentralized finance for Actuaries.

- Decentralized Finance for Actuaries.
- Decentralized Insurance Alternatives: Market Landscape, Opportunities and Challenges.
- A Risk Classification Framework for Decentralized Finance Protocols.

Andrews Gwynne Private Wealth Management (Industrial Collaborator) - Leeds, UK.
Independent Private Wealth Management & Multi-asset portfolio strategies Project.
Industrial research collaborator/partner on a 60,000 GBP Doctoral Prize Fellow Research Grant 2016-2018.

Soliton Financial Analytics (Internship) - Shenzhen, China.
Risk management, capital portfolio and business performance.
Received a funded scholarship placement through the British Council's Generation UK, Summer 2014.

Published Refereed Journal Papers

1. **Interconnections and contagion among cryptocurrencies, DeFi, NFT and traditional financial assets: Some new evidence from tail risk driven network.** (Liao, X., Li, Q., Chan, S., Chu, J., & Zhang, Y). Physica A: Statistical Mechanics and its Applications, (2024, In Press).
2. **An analysis of the return-volume relationship in Decentralised finance (DeFi).** (Chu, J., Chan, S. & Zhang, Y). International Review of Economics & Finance (2023), 85, pp.236-254.
3. **The adaptive market hypothesis of Decentralized finance (DeFi).** (Zhang, Y., Chan, S., & Chu, J). Applied Economics (2022), pp.1-15.
4. **An extreme value analysis of the tail relationships between returns and volumes for high frequency cryptocurrencies.** (Chan, S., Chu, J., Zhang, Y., & Nadarajah, S). Research in International Business and Finance. (2022), 59, p.101541.
5. **On the expression for expected customer choice probabilities.** (Nadarajah, S., & Chan, S). Annals of Operations

Research. (2021), 307 (1), pp.499-504.

6. **Dependence between bitcoin and African currencies.** (Nadarajah, S., Afuecheta, E., & Chan, S). Quality & Quantity. (2021), 55(4), pp.1203-1218.
7. **Bitcoin versus high-performance technology stocks in diversifying against global stock market indices.** (Chu, J., Chan, S., & Zhang, Y). Physica A: Statistical Mechanics and its Applications. (2021), 580, p.126161.
8. **Count regression models for COVID-19.** (Chan, S., Chu, J., Zhang, Y., & Nadarajah, S). Physica A: Statistical Mechanics and its Applications. (2021), 563, p.125460.
9. **Folded Bivariate Distributions as Models for Magnitude Correlation**. (Afuecheta, E., Nadarajah, S., & Chan, S). REVSTAT-Statistical Journal. 2021.
10. **Compound distributions for financial returns.** (Afuecheta, E., Semeyutin, A., Chan, S., Nadarajah, S., & Andrés Pérez Ruiz, D. Plos one. (2020), 15(10), p.e0239652.
11. **Bias reduction in the population size estimation of large data sets.** (Chu, J., Zhang, Y., & Chan, S). Journal Computational Statistics and Data Analysis. (2020), 145, p.106914.
12. **On the Market Efficiency and Liquidity of High-Frequency Cryptocurrencies in a Bull and Bear Market.** (Zhang, Y., Chan, S., Chu, J., & Sulieman, H). J. Risk Financial Manag. (2020), 13(1), p.8.
13. **High frequency momentum trading with cryptocurrencies.** (Chu, J., Chan, S., & Zhang, Y). Research in International Business and Finance. (2020), 52, p.101176.
14. **On moments of the unit Lindley distribution.** (Nadarajah, S., & Chan, S). Journal of Applied Statistics. (2020), 47(5), pp.947-949.
15. **A Statistical Analysis of Global Economies Using Time Varying Copulas.** (Afuecheta, E., Nadarajah, S., & Chan, S) Computational Economics. (2020), 58(4), pp.1167-1194.
16. **The adaptive market hypothesis in the high frequency cryptocurrency market.** (Zhang, Y., Chan, S., & Chu, J). International Review of Financial Analysis. (2019), 64, pp.221-231.
17. **The Generalised hyperbolic distribution and its subclass in the analysis of a new era of cryptocurrencies: Ethereum and its financial risk.** (Zhang, Y., Chu, J., Chan, S., & Chan, B). Physica A: Statistical Mechanics and its Applications. (2019), 526, p.120900.
18. **Extreme value analysis of high-frequency cryptocurrencies.** (Zhang, Y., Chan, S., & Nadarajah, S). High Frequency. (2019), 2(1), pp.61-69.
19. **Stylised facts for high frequency cryptocurrency data.** (Zhang, Y., Chan, S., & Chu, J). Physica A: Statistical Mechanics and its Applications (2019), 513, pp. 598-612.
20. **The exact distribution of the sum of stable random variables. (**Nadarajah, S., & Chan, S**).** Journal of Computational and Applied Mathematics. (2019), 349, pp.187-196.
21. **Flexible models for stock returns based on Student's t distribution.** (Afuecheta, E., Chan, S., & Nadarajah, S) The Manchester School, (2019), 87(3), pp.403-427.
22. **On the distribution of maximum of multivariate normal random vectors.** (Nadarajah, S., Afuecheta, E., & Chan, S) Communications in Statistics-Theory and Methods. (2019), 48(10), pp.2425-2445.
23. **An alternative measure of positive correlation.** (Nadarajah, S., Chu, J., & Chan, S) International Journal of Mathematical Education in Science and Technology. (2019), 50(4), pp.642-645.
24. **Risk: An R package for financial risk measures.** (Chan, S., & Nadarajah, S) Computational Economics. (2019), 53(4), pp.1337-1351.
25. **GARCH Modelling of Cryptocurrencies** (Chu, J., Chan, S., Nadarajah, S., & Osterrieder, J). Journal of Risk and Financial Management. (2017), 10 (4) p.17.
26. **A Statistical Analysis of Cryptocurrencies** (Chan, S., Chu, J., Nadarajah, S., & Osterrieder, J). Journal of Risk and Financial Management. (2017), 10 (2) p.12.
27. **Nuclear Catastrophe Risk Bonds in a Markov Dependent Environment** (Shao, J., Pantelous, A., Chan, S., & Nadarajah, S). Journal of Risk and Uncertainty in Engineering Systems. (2017), 3 (4), p.04017018
28. **Discrete distribution based on inter arrival times with application to football data** (Nadarajah, S., & Chan, S). Communications in statistic. (2017), 47 (1), pp.147-165.
29. **Is the wealth of the Forbes 400 lists really Pareto distributed** (Chan, S., Chu, J., & Nadarajah, S). Economics Letters. (2016), Elsevier, 152, pp.9-14.
30. **An R package for value at risk and expected shortfall** (Chan, S., Afuecheta, E., & Nadarajah, S). Communications in Statistics. (2016), Taylor and Francis, 45 (9), pp.3416-3434.
31. **Statistical analysis of the exchange rate of Bitcoin** (Chu, J., Chan, S., & Nadarajah, S). PLoS one. (2015), 10 (7), p.e0133678.
32. **A note on "Modelling exchange rate returns: which flexible distribution to use?"** (Afuecheta, E., Nadarajah, S., & Chan, S) Quantitative Finance. (2015), Taylor and Francis, 15 (11) pp.1777-1785.
33. **Extreme value analysis of electricity demand in the UK** (Chan, S., & Nadarajah, S). Applied Economics Letters. (2015), Taylor and Francis, 22 (15), pp.1246-1251.
34. **GARCH modelling for five popular commodities** (Afuecheta, E., Nadarajah, S., & Chan, S). Empirical Economics. (2015), Springer, 48 (4), pp.1691-1712.
35. **Estimation methods for expected shortfall** (Nadarajah, S., Zhang, B., & Chan, S). Quantitative Finance. (2014), 14 (2) pp.271-291.
36. **A statistical study of racism in English Football** (Chu, J., Afuecheta, E., Nadarajah, S., & Chan, S). Quality & Quantity. (2013), Springer, 48 (5), pp.2915-2937.
37. **A double generalized Pareto distribution** (Afuecheta, E., Nadarajah, S., & Chan, S). Statistics and Probability Letters. (2013), Elsevier, 83 (12), pp.2656-2663.

38. **On the characteristic function for asymmetrics Student's t distributions** (Nadarajah, S., Chan, S., & Afuecheta, E). Economics Letters. (2013), Elsevier, 121 (2), pp.271-274.
39. **Extreme value analysis for emerging African markets** (Nadarajah, S., Chan, S., & Afuecheta, E). Quality & Quantity. (2013), Springer, 4 (3), pp.9840-9846.

Published Book Chapters

1. Stylized facts of decentralized finance (Zhang, Y., Chan, S., Chu, J., Lao, X. and Min, H), in La Torre, D. (ed.) AI for Finance and Beyond. World Scientific Publishing Europe, (June 2024). https://doi.org/10.1142/q0449
2. Blockchain and Cryptocurrencies (Chan, S., Chu, J., Zhang, Y., & Nadarajah, S). J. Risk Financial Manag. (2020). https://doi.org/10.3390/books978-3-03943-534-0.
3. Estimation methods for value at risk (with Nadarajah, S). Chapter 12 of Extreme Events in Finance: A Handbook of Extreme Value Theory and Its Applications (edited by F. Longin), pp. 283-356. John Wiley and Sons, Chichester. (2016)
4. 'MOATS Competitive Advantages of Buffet & Munger Businesses: Berkshire Hathaway' book, published Jan 2012 by publisher Acalmix and author Bud Labitan. Chapter published " **US Liability Insurance Group**" by Bud Labitan with Stephen Chan pages (307-310) and " **Wesco Financial Corporation**" by Bud Labitan with Stephen Chan pages (341-346).

Software Packages

1. Nadarajah, S, Chan, S (2017). R package **"Risk",** Computes 26 Financial Risk Measures for Any Continuous Distribution. R package version 1.0. https://cran.r-project.org/web/packages/Risk/Risk.pdf
2. Nadarajah, S, Chan, S, and Afuecheta, E (2013). R package **"VaRES",**Computes value at risk and expected shortfall for over 100 parametric distributions. R package version 1.0. http://cran.r-project.org/web/packages/VaRES/index.html

Research Project Grants and Funding

- **Principle Investigator: 5,000 AED** American University of Sharja FRG Supplemental Undergraduate Employment Grant 2024. (FRG-S24-S07), 2024.
- **Principle Investigator: 25,000 AED** American University of Sharjah Faculty Research Grant: "From Digits to Dollars: The Evolution of Price Impact in Digital Assets", (FRG24-E-S25), 2024-2025.
- **Principle Investigator: 248,800 AED** American University of Sharjah Faculty Research Grant: *"Anomaly and Fraud Detection in Blockchain and Cryptocurrency Networks"*, (FRG23-C-S68), 2023-2025.
- **Principle Investigator: 5,000 AED** American University of Sharja FRG Supplemental Undergraduate Employment Grant 2023. (FRG-S23-S07), 2023.
- **Principle Investigator: 121,250 AED** American University of Sharjah Faculty Research Grant: *"The Maturity of Decentralised Finance (DeFi) Markets: A Market Efficiency Test Based on Trading Strategies"*, (FRG22-E-S95), 2022-2023.
- **Principle Investigator: 79,720 AED** American University of Sharjah Faculty Research Grant: *"Understanding the Risk for Digital Cryptocurrencies"*, (FRG21-M-S41), 2021-2023.
- **Principle Investigator: 130,000 AED** American University of Sharjah Faculty Research Grant (Smart Cities Research): *"The Good, the Bad, And the Trendy: the Role Of Sentiment-Based Trading in the Cryptocurrency Markets, and the Case for a Unique Lexicon"*, (FRG20-M-S111), 2020-2022.
- **Principle Investigator: 25,000 AED** American University of Sharjah Faculty Research Grant: *"Understanding the role of active and passive portfolio's in high frequency cryptocurrency trading"*, (FRG19-S-S135), 2019-2021.
- **Principle Investigator: 135,700 AED** American University of Sharjah EFRG Smart Cities Research Grant: *"Actuarial applications of Blockchain cryptocurrencies"*, (EFRG18-SCR-CAS-72), 2018-2020.
- **Principle Investigator: 5,000 AED** CAS Seed Grant, American University of Sharjah, 2017.
- **Principle Investigator: 7,500 GBP** secured multiple grants from the European Cooperation in Science and Technology (COST); Bank of England Research Donations Committee; The American Risk and Insurance Association (ARIA); The Institute of Mathematics and its Applications (IMA), to host the "Mathematics for Industry Conference: Blockchain and Cryptocurrencies", 2017.
- **Principle Investigator: 60,000 GBP** Engineering and Physical Sciences Research Council (EPSRC) Doctoral Prize Fellow Research Grant: *"New Financial Risk Measures",* (P118375-D07), 2015-2017.

- **Co-Principle Investigator/ International Partner: 4,472,972 EUR** Marie Sklodowska-Curie Action (MSCA), "MSCA Industrial Doctoral Network on Digital Finance", (with Osterrieder, J.) 2024-2027.
- **Co-Principle Investigator: 25,000 CHF** ETH Zurich Leading House - Research Partnership Grants, (ARPG_112023_8), "Graph-Theoretic Analysis for Consumer Credit Risk Assessment in Personal Lending", (with Chu, J. and Osterrieder, J.) 2024-2025.
- **Co-Principle Investigator: RMB 200,000** Beijing National Science Foundation 2023 International Scientists Project (IS23126), "Research on Detecting Illicit Activity in Digital Cryptocurrency Networks", (with Chu, J.) 2023-2025.
- **Co-Principle Investigator**: **5,000 AED** 2024 CAS Undergraduate Research Grant (CAS-URG24), "Behavioral changes in captive Bengal Slow Lorises (Nycticebus bengalensis) with enrichments", (with Said Ismail, K.) 2024.
- **Co-Principle Investigator: £9,000 GBP** Centre for Digital Trust and Society (CDTS) Seedcorn, University of Manchester, "Blockchain Forensics: Criminal Analysis using R Shiny", (with Zhang, Y.) 2023-2024.

- **Co-Principle Investigator: £2,000 GBP** Campion Grant, Manchester Statistical Society, “Crafting Anomaly and Fraud Detection Tools for Blockchain Integrity: Building the Path for the UK to Become a Global Blockchain Tech Leader”, (with Zhang, Y.) 2023-2024**.**
- **Co-Principle Investigator**: **5,000 AED** 2022 CAS Undergraduate Research Grant (CAS-URG22): “The effect of the Russia-Ukraine war on commodities.”, (with Chandrashekhar, D.) 2022.
- **Co-Principle Investigator: 5,000 AED** 2022 CAS Undergraduate Research Grant (CAS-URG22): “Composite lognormal distributions for cosmic voids in simulations and mocks”, (with Hamed, N.) 2022.
- **Co-Principle Investigator: 6,700 CHF** National Science Foundation (SNSF) Scientific Exchanges (with Osterrieder, J.), (IZSEZ0_211195), 2022-2023.
- **Co-Principle Investigator: 20,000 USD** Renmin University of China, International Research, Cooperation and Expansion Support Grant: *“The maturity of crypto markets: A market efficiency test based on trading strategies”*, (with Chu, J. and Zhang, Y.), 2021.
- **Co-Principle Investigator: 4,100 GBP** University of Manchester Fintech Seedcorn Funding Grant: *“Cryptocurrencies and Blockchain Technology”* (with Chu, J. and Nadarajah, S.), 2017.

Honours and Awards

- **£1000** academic visit grant, European Cooperation in Science and Technology (COST), academic visit to Bern University of Applied Science, Bern, Switzerland, 2023.
- **£1000** academic visit grant, University of Manchester Institute for Mathematical Sciences (MIMS), The University of Manchester, UK, 2023.
- **£3000** travel grant, selected by the Scientific Review Board of the Council of the Hong Kong Laureate Forum (the HKLF) and the Government of the Hong Kong Special Administrative Region, to be a Young Scientist presenting (only 200 worldwide selected in different disciplines) at the 2023 Forum on my research projects in blockchain. Link:
- **£1000** travel grant, University of Manchester Institute for Mathematical Sciences (MIMS), academic visit to Department of Mathematics, The University of Manchester, UK, 2022.
- Journal of Risk and Financial Management (JRFM) – 2019 Best Paper Award (Chu, J., Chan, S., Nadarajah, S., Osterrieder, J. GARCH Modelling of Cryptocurrencies. Journal of Risk and Financial Management. 2017, 10, 17).
- **£4000** academic visit grant, University of Manchester Data Science Institute Travel Bursary Fund, visiting scholars scheme, 2017.
- **£1000** grant, University of Manchester Margaret Elizabeth Lee Fellowship, 2017.
- **$2000** grant, Institute of Mathematical Statistics (IMS) Travel Award, to attend and present at the Joint Statistical Meetings (JSM). Baltimore Convention Center, Baltimore, USA, 2017.
- Honourable mention award in Engineering Sciences for the ABTA 2017 Doctoral Researcher Awards.
- Best poster award for article “GARCH modeling for five popular commodities”, Risk Analysis section in the American Statistical Association at the Joint Statistical Meetings (JSM) 2016.
- Awarded a Canadian Statistical Sciences Institute travel grant, to attend and present at the International Conference on Statistical Distributions and Applications. Crown Plaza, Niagara Falls, Canada, 2016.
- Awarded a National Science Foundation grant, to attend and present at the 9th Conference on Extreme Value Analysis. University of Michigan, Michigan, USA, 2015.
- Awarded the Central Michigan University travel grant, to attend and present at the International Conference on Statistical Distributions and Applications. Central Michigan University, Michigan, USA, 2013.

Invited Talks and Seminars

- Seminar, School of Statistics, Renmin University of China, Beijing, China. “Empirical analysis of illicit transactions on Blockchain network”. 20th May 2024.
- Invited Speaker, AUS Innovation Expo: Future of Research and Technology in the UAE, AUS, Sharjah, UAE. “A Real-time Risk Rating System for Digital Assets”. 6th May 2024.
- The Society of Actuaries (SOA) 2022 ImpACT Conference. Orlando Marriott World Center, Florida, USA. “Decentralized Finance for Actuaries”. 26th - 29th October 2022.
- Seminar, Institute of Statistics and Big Data, School of Statistics, Renmin University of China, Beijing, China. “Anomaly and fraud detection in blockchain networks”.21st December 2023.
- Invited Speaker, The Inaugural Hong Kong Laureate Forum, Hong Kong Science Park, Shatin, Hong Kong. “A Real-time Risk Rating System for Digital Assets”. 13th - 18th November 2023.
- Seminar, Bern University of Applied Science, Bern, Switzerland. “Anomaly and fraud detection in blockchain networks”.1st July 2023.
- Invited Speaker, The Society of Actuaries (SOA) 2022 ImpACT Conference. Orlando Marriott World Center, Florida, USA. “Decentralized Finance for Actuaries”. 26th - 29th October 2022.
- Keynotes speaker, 2022 International Conference on Computational Social Sciences and Sustainability. Wuhan University of Technology, Wuhan, China. “An analysis of the return-volume relationship in decentralized finance (DeFi)”. 29th June 2022.
- Keynotes speaker, 9th International Conference on Economics, Finance and Statistics (ICEFS2021). Hong Kong Shue Yan University, Hong Kong. “An analysis of the return-volume relationship in decentralised finance (DeFi)”. 29th December 2021.
- Seminar, Institute of Mathematical and Computer Sciences of the University of São Paulo (ICMC-USP), Sao Carlos, Brazil. “Bitcoin versus high-performance technology stocks in diversifying against global stock market indices”. April

9th, 2021.

- Keynotes speaker, 4th International Conference on Economics, Finance and Statistics (ICEFS2020). Hong Kong Shue Yan University, Hong Kong. "Bitcoin versus High-Performance Technology Stocks in Diversifying Against Global Stock Market Indices". 5th December 2020.
- Seminar, Sharakah Mathfest 2018, American University of Sharjah, UAE, "Blockchain and Cryptocurrencies". March 15th, 2018.
- Seminar, Institute of Mathematical and Computer Sciences of the University of São Paulo (ICMC-USP), Sao Carlos, Brazil. "Statistical analysis on Bitcoin and other cryptocurrency". January 5th, 2018.
- Seminar, Department of Mathematics and Statistics, American University of Sharjah, UAE, "Statistical Analysis of the Exchange Rate of Bitcoin and Other Cryptocurrencies". October 3rd, 2017.

Conference presentations

- 6th International Conference on Econometrics and Statistics (EcoSta 2023). Waseda University, Tokyo, Japan. *"Stylized facts of decentralized finance (DeFi)"* (contributed talk). 1st– 5th August 2023.
- Royal Statistical Society (RSS) 2023 International Conference. Harrogate International Centre, Harrogate, UK. *"The Financial Impact of War on Cryptocurrencies"* (contributed talk). 4th – 7th September 2023.
- 16th International Conference on Computational and Financial Econometrics. King's College London, UK. "An analysis of the return-volume relationship in Decentralised finance (DeFi)". 17th -19th December 2022.
- Royal Statistical Society (RSS) 2022 International Conference. P&J Live, Aberdeen, UK. *"An analysis of the return-volume relationship in decentralized finance (DeFi)"* (contributed talk). 12th – 15th September 2022.
- 5th International Conference on Econometrics and Statistics (EcoSta 2022). Ryukoku University, Kyoto, Japan. *"An analysis of the return-volume relationship in decentralized finance (DeFi)"* (contributed talk). 4th – 6th June 2022.
- 4th International Conference on Econometrics and Statistics (EcoSta 2021). Hong Kong University of Science and Technology, Hong Kong. *"Bitcoin versus high-performance technology stocks in diversifying against global stock market indices"* (Talk). 24th – 26th June 2021.
- 2019 IMS China International Conference on Statistics and Probability. Dalian International Convention Center, Dalian, China. *"The Generalised hyperbolic distribution and its subclass in the analysis of a new era of cryptocurrencies: Ethereum and its financial risk"* (Talk). 6th-10th July 2019.

Service and Affiliations

- **Member of Project Oversight Group** on Decentralized Finance for Actuaries, Society of Actuaries, 2020-Present
  Published three industry research reports on decentralized finance for Actuaries.
  - Decentralized Finance for Actuaries.
  - Decentralized Insurance Alternatives: Market Landscape, Opportunities and Challenges.
  - A Risk Classification Framework for Decentralized Finance Protocols.
- **Member of European Cooperation in Science and Technology (COST) Action** CA19130, Fintech and Artificial Intelligence in Finance - Towards a transparent financial industry (FinAI) (2020-2024, 600k EUR).
- **Invited Session Organiser**, 5th International Conference on Econometrics and Statistics (EcoSta 2022), Ryukoku University, Kyoto, Japan, 4th – 6th June 2022. Joint organiser (with Chu, J.) for the invited organised session EO059: "Econometrics and statistics in blockchain, digital currencies, and decentralised finance".
- **Chair**, "Bits and Blocks (Blockchain)" Workshop 2021, Online, 18th December 2021. Joint organiser (with Chu, J.) hosting a small one-day workshop bringing together individuals from academia and industry, to share the latest knowledge, research, and developments in the blockchain, decentralised finance, and digital assets.
- **Invited Session Organiser**, 4th International Conference on Econometrics and Statistics (EcoSta 2021), Hong Kong University of Science and Technology, Hong Kong, 24th – 26th June 2021. Joint organiser (with Chu, J.) for the invited organised session EO185: "Econometrics and statistics with applications to cryptocurrencies and the blockchain".
- **Guest Editor**, Special Issue "Smart Cities Research in Enabling Technologies and Tools", Journal of Risk and Financial Management, 2020-2022.
- **Guest Editor**, Special Issue "Blockchain and Cryptocurrencies", Journal of Risk and Financial Management, 2019-2020.
- **AUS Executive and Professional Education course on "Decrypting Cryptocurrencies"** Fall 2018.
- **Guest Editor**, Special Issue "Extreme Values and Financial Risk", Journal of Risk and Financial Management, 2018.
- **Chair**, "Mathematics for Industry: Blockchain and Cryptocurrencies" Conference, University of Manchester, 2018. Participated in the planning of the conference schedule; invitation of guest speakers; arrangement of transport, accommodation, and catering for attendees; conference website and publicity. Successfully secured multiple grants totalling over £7500 from the European Cooperation in Science and Technology (COST); Bank of England Research Donations Committee; The American Risk and Insurance Association (ARIA); The Institute of Mathematics and its Applications (IMA), to host the conference.
- **Organising Committee**, "Artificial Intelligence in Industry and Finance" 2nd European COST Conference on Mathematics for Industry in Switzerland, Zurich University of Applied Sciences, 2017.
- **Management Committee** of the "3rd & 4th Symposium on Quantitative Finance and Risk Analysis" (2017, 2018).

Professional Membership

- American Statistical Association (ASA), Institute of Mathematical Statistics (IMS) and International Chinese Statistical Association (ICSA).