鄧惠文 Huei-Wen Teng

Department of Information Management and Finance
National Yang Ming Chiao Tung University

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EMPLOYMENT AND EDUCATION

National Yang Ming Chiao Tung University

Associate Professor, Department of Information Management and Finance — Feb 2017 – Present
Jointly Appointed Associate Professor, Institute of Statistics — Aug 2017 – Present

National Central University

Associate Professor, Graduate Institute of Statistics — Aug 2016 – Jan 2017
Jointly Appointed Associate Professor, Department of Finance — Aug 2016 – Jan 2017
Assistant Professor, Graduate Institute of Statistics — Aug 2010 – Jul 2016

Ph.D. in Statistics, The Pennsylvania State University — Jul 2010

MBA in Finance, National Taiwan University — Jul 2004

BS in Mathematics, National Taiwan University — Jul 2001

RESEARCH INTERESTS

Smart data analytics, FinTech, financial engineering, Explainable Artificial Intelligence

ACADEMIC AWARDS and ACTIVITIES

Experienced Researcher, The Bucharest University of Economic Studies - ASE, Romania (IDA Institute of Digital Assets CF 166/15112022) — Apr 2024 – Present

"Financial Analytics of Deribit BTC Options" The 31st Annual Conference on Pacific Basin Finance, Economics, Accounting and Management (PBFEAM), Best Paper Award 第三十一屆亞太財務經濟會計與管理研討會, 最佳論文 — Jun 2, 2023

"透過群表現理論的一個新穎的球狀蒙地卡羅估計量來計算高微度積分" 第18屆台灣作業研究學會年會暨學術研討會(ORSTW 2022), 最佳論文 — Dec 9, 2022

"比特幣倒數型選擇權在隨機波動度下的動態避險" 2022 New Futures 期貨學術與實務交流研討會, 臺灣期貨交易所與工商時報共同舉辦, Taipei, 論文金質獎 — Nov 28, 2022

PUBLICATIONS

Articles in Refereed Journals

1. Huei-Wen Teng, Ming-Hsuan Kang, I-Han Lee, and Le-Chi Bai. Bridging accuracy and interpretability: A rescaled cluster-then-predict approach for enhanced credit scoring. *International Review of Financial Analysis*, 91:103005, January 2024b. (SSCI IF = 8.2, RF: 4/111=3.6%)

2. Huei-Wen Teng. Importance sampling for calculating the value-at-risk and expected shortfall of the quadratic portfolio with *t*-distributed risk factors. *Computational Economics*, 62(3):1125–1154, October 2023. (SCIE IF=2.0, RF: 47/107=43.9%, 國科會經濟學門B級期刊)

3. Yung-Chi Chang, Huei-Wen Teng, and Wolfgang Härdle. Stochastic volatility dynamic hedging of the inverse BTC option. *Journal of Futures and Options*, 16(2):1–48, August 2023. (TSSCI)

4. Le Quoc Tuan, Chih-Yung Lin, and Huei-Wen Teng. Machine learning methods for predicting failures of US commercial bank. *Applied Economics Letters*, pages 1–7, May 2023. (SSCI IF=1.287, RF: 236/380=62.1%)

5. Huei-Wen Teng and Yu-Hsien Li. Can deep neural networks outperform Fama-Macbeth regression and other supervised learning approaches in stock returns prediction with asset-pricing factors? *Digital Finance*, 5(1):149–182, March 2023

6. Huei-Wen Teng and Cheng-Der Fuh. Simulating false alarm probability in K-distributed sea clutter. *Communications in Statistics-Simulation and Computation*, 51(9):5081–5098, September 2022. (SCIE IF=0.9, RF:87/125=69.9%)

7. Huei-Wen Teng and Ming-Hsuan Kang. On accelerating Monte Carlo integration using orthogonal projections. *Methodology and Computing in Applied Probability*, 24(2):1143–1168, June 2022. (SCIE IF=0.9, RF:81/125=65.3%)

8. Huei-Wen Teng and Xiang-An Zhao. On pricing quanto options with spherical Monte Carlo simulation. *Journal of Futures and Options*, 14(2):25–82, August 2021. (TSSCI)

9. Huei-Wen Teng and Michael Lee. Estimation procedures of using five alternative machine learning methods for predicting credit card default. *Review of Pacific Basin Financial Markets and Policies*, 22 (03):1950021, September 2019. (國科會財會學門財務領域B級期刊)

10. Yuh-Dauh Lyuu, Huei-Wen Teng, Yao-Te Tseng, and Sheng-Xiang Wang. A systematic and efficient simulation scheme for the Greeks of financial derivatives. *Quantitative Finance*, 19(7):1199–1219, January 2019. (SSCI IF = 1.3, RF:150/376=39.9%, 國科會財會學門財務領域A Tier-2 級期刊)

11. Cheng-Der Fuh, Huei-Wen Teng, and Ren-Her Wang. Efficient simulation of value-at-risk under a jump diffusion model: A new method for moderate deviation events. *Computational Economics*, 51(4): 973–990, April 2018. (SCIE IF=2.0, RF: 47/107=43.9%, 國科會經濟學門B級期刊)

12. Huei-Wen Teng. A spherical Monte Carlo approach for calculating value-at-risk and expected shortfall in financial risk management. In *2017 Winter Simulation Conference (WSC)*, pages 469–480. IEEE, January 2018

13. Huei-Wen Teng, Cheng-Der Fuh, and Chun-Chieh Chen. On an automatic and optimal importance sampling approach with applications in finance. *Quantitative Finance*, 16(8):1259–1271, 2016. (SSCI IF = 1.3, RF:150/376=39.9%, 國科會財會學門財務領域A Tier-2 級期刊)

14. Sanford Luo, Huei-Wen Teng, and Yu-Hsuan Lee. Forecasting mortality using imputed data: The case of Taiwan. *Asia-Pacific Journal of Risk and Insurance*, 10(1):1–20, 2016

15. Huei-Wen Teng Ming-Hsuan Kang and Cheng-Der Fuh. On spherical Monte Carlo simulations for multivariate normal probabilities. *Advances in Applied Probability*, 47(3):817–836, 2015. (SCIE IF=1.2, RF:79/125=63.2%)

16. Wolfgang Karl Härdle, Brenda López-Cabrera, and Huei-Wen Teng. State price densities implied from weather derivatives. *Insurance: Mathematics and Economics*, 64:106–125, 2015. (SCIE IF=1.9, RF:51/107=47.6%, 國科會財會學門保險精算子領域A Tier-2級期刊)

17. Huei-Wen Teng, Wen-Liang Hung, and Yen-Ju Chao. Bayesian Markov chain Monte Carlo imputation for the transiting exoplanets with an application in clustering analysis. *Journal of Applied Statistics*, 42(5):1120–132, 2015. (SCIE IF=1.5, RF:60/125= 48.0%)

18. Cheng-Der Fuh and Huei-Wen Teng. Discussion of “multiscale change point inference" by Frick, Munk and Sieling. *Journal of the Royal Statistical Society: Series B*, 76(3):554–555, 2014. (SCIE IF=5.8, RF:3/125=2.4%)

19. Chun-Cheih Chen, Cheng-Der Fuh, and Huei-Wen Teng. Efficient option pricing with importance sampling. *Journal of the Chinese Statistical Association*, 51(3):253–273, 2013. (EconLit)

20. Yuh-Dauh Lyuu and Huei-Wen Teng. Unbiased and efficient Greeks of financial options. *Finance and Stochastics*, 15(1):141–181, 2011. (SCIE IF= 1.7, RF:51/125=40.8%, 國科會財會學門財務領域A Tier-2 級期刊)

21. Cheng-Der Fuh, Huei-Wen Teng, and Ren-Her Wang. On-line VWAP trading strategies. *Sequential Analysis*, 29(3):292–310, 2010. (SCIE, IF=0.8, RF:107/125=85.6%)

22. Tze-Chuan Yang, Huei-Wen Teng, and Murali Haran. The impacts of social capital on infant mortality in the U.S.: A spatial investigation. *Applied Spatial Analysis and Policy*, 2(3):211–227, 2009. (SSCI IF=1.9, RF:57/86=66.3%)

Articles in Conference Proceedings

1. Huei Wen Teng, Yu-Hsien Li, and Shang-Wen Chang. Machine learning in empirical asset pricing models. In *2020 International Conference on Pervasive Artificial Intelligence (ICPAI)*, pages 123–129, December 2020

2. Huei-Wen Teng. A spherical Monte Carlo approach for calculating value-at-risk and expected shortfall in financial risk management. In *2017 Winter Simulation Conference (WSC)*, pages 469–480. IEEE, January 2018

Articles in Handbooks

1. Wei-Hung Lin, Huei-Wen Teng, and Chi-Chun Yang. A heteroskedastic Black-Litterman portfolio optimization model with views derived from a predictive regression. In Cheng Few Lee and John Lee, editors, *Handbook of Financial Econometrics, Mathematics, Statistics, and Machine Learning*, volume 1, chapter 14, pages 563–581. World Scientific, Hackensack, NJ, 2020

2. Huei-Wen Teng and Michael Lee. Estimation procedures of using five alternative machine learning methods for predicting credit card default. In Cheng Few Lee and John Lee, editors, *Handbook of Financial Econometrics, Mathematics, Statistics, and Machine Learning*, volume 4, chapter 101, pages 3545–3572. World Scientific, Hackensack, NJ, 2020

3. Huei-Wen Teng and Michael Lee. Alternative machine learning methods for credit card default forecasting. In John Lee, Jow-Ran Chang, Lie-Jane Kao, and Cheng Few Lee, editors, *Essentials of Excel VBA, Python, and R Volume II: Financial Derivatives, Risk Management and Machine Learning*, volume 2, chapter 14, pages 285–298. Springer, Switzerland, 2 edition, 2023

Submitted Papers

1. Huei-Wen Teng and Yenchang Lee. Integrating explainable ai with polynomial analytics to enhance credit scoring model compliance. February 2024. Submitted to *European Journal of Operational Research*

2. Huei-Wen Teng, Wolfgang K Härdle, Jörg Osterrieder, and et al. Mitigating digital asset risks. 2023. Under review at *Financial Innovation*, doi = 10.2139/ssrn.4594467

3. Huei-Wen Teng and Wolfgang K Härdle. Financial analytics of inverse BTC options in a stochastic volatility world. January 2024a. Submitted to *Journal of Financial Econometrics*

Working papers

1. Huei-Wen Teng and Wolfgang K Härdle. Empirical pricing kernel of bitcoin options. *Manuscript in Progress*, 2024b
2. Huei-Wen Teng, David Jheng, Claire Chen, Jessie Teng, Cindy Tsai, and Wolfgang Karl Härdle. Financial risk meters in taiwan's high-cap electronic and financial sectors. Manuscript in Progress, 2024a
3. Huei-Wen Teng, Meng-Jou Lu, Matúš Horváth, and Wolfgang Karl Härdle. Which risk do crypto index investments have? Manuscript in Progress, 2024c

ACADEMIC ACTIVITIES

Associate Editor for Digital Finance — Oct 2022-present

Associate Editor for Management and Market — Oct 2022-present

AD HOC REVIEWING (Selective List)

Financial Innovation, Management Science, Operations Research, Review of Quantitative Finance and Accounting, International Review of Economics and Finance

INDUSTRY-UNIVERSITY COOPERATIVE RESEARCH PROJECT

1. Robo-advisors in portfolio management, *Synergies Intelligent Systems*. — Dec 2016 - Dec 2017
2. Data analytics in finance, *E.Sun Commercial Bank*. — Nov 2018 - Jul 2121
3. An Anti-Money-Laundry name-checking solution, *Liu & Partners Law Office*. — Jul 2020 - Dec 2020

PATENTS

1. 鄧惠文,國立陽明交通大學。 評估投資組合風險指標方法及投資組合評估裝置，中華民國經濟部智慧財產局，發明第I765347號，2020/09/11-2040/09/10。
2. 鄧惠文，康明軒，傅承德，國立中央大學。金融商品定價系統以及金融商品定價方法, 中華民國經濟部智慧財產局，發明第I534737號，2016/5/21-2035/3/26。

Last updated: May 11, 2024

CONFERENCE/WORKSHOP PRESENTATIONS

"Financial Analytics of Deribit BTC Options" The 31st Annual Conference on Pacific Basin Finance, Economics, Accounting and Management (PBFEAM) 第三十一屆亞太財務經濟會計與管理研討會, NYCU, Hsinchu Jun 2, 2023

"透過群表現理論的一個新穎的球狀蒙地卡羅估計量來計算高微度積分" 第18屆台灣作業研究學會年會暨學術研討會(ORSTW 2022), NYCU, Hsinchu Dec 9, 2022

Discussant of "Volatility, Liquidity, ESG Investment and Conditional Value at Risk: Evidence from Taiwanese Financial Holding Companies" 台灣經濟學會2022年年會 Dec 3, 2022

"比特幣倒數型選擇權在隨機波動度下的動態避險" 2022 New Futures 期貨學術與實務交流研討會, 臺灣期貨交易所與工商時報共同舉辦, Taipei Nov 28, 2022

"Crypto currency returns", the Crypto Currency Day of the CAS Blockchain, on-line presentation, University of Zurich Oct 1, 2022

"Pricing and hedging inverse BTC options", 2022 International Conference of the Taiwan Finance Association (TFA 2022), 「期交所期貨與選擇權成果發表會」,國立陽明交通大學資訊管理與財務金融學系 Jun 17, 2022

"Pricing and hedging inverse Bitcoin options", the 5th International Conference on Econometrics and Statistics (EcoSta 2022), online presentation, Ryukoku University, Kyoto, Japan Jun 4-6, 2022

"Pricing and hedging inverse Bitcoin options", online presentation, the 30th Annual Conference on Pacific Basin Finance, Economics, Accounting (PBFEAM), National Chung Cheng University, Taiwan May 13-15, 2022

"Pricing and hedging the inverse option under the SVCJ model", online presentation, the 3rd Berlin Conference Crypto-Currencies in a Digital Economy, Berlin, Germany Nov 26-27, 2021

"金融/法律科技", 2021科技與法律跨領域寒假營隊, 財團法人理律文教基金會, Taiwan Feb 2, 2020

"On a projection estimator for Monte Carlo integration", 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019), University of London, UK Dec 14-16, 2019

"Machine learning for predicting default of credit card holders and success of kickstarters", 11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018), University of Pisa, Italy Dec 14-16, 2018

"A spherical Monte Carlo approach for calculating Value-at-Risk in financial risk management", the 2017 Winter Simulation Conference, Las Vegas, Nevada, USA Dec 3-6, 2017

"A novel spherical Monte Carlo method via group representation", the Seventh Institute for Mathematical Statistics - Finance, Probability and Statistics Workshop, University of Maryland Baltimore County, Baltimore, MD, USA 7/27/2017

"Efficient simulation of high-dimensional integrals with applications in finance", NCTS Workshop on Frontier Technologies for High Dimensional Problems and Uncertainly Quantification, National Taiwan University, Taipei, Taiwan 12/16/2016

"A spherical Monte Carlo method for financial option pricing", the Fifth Institute for Mathematical Statistics - Finance, Probability and Statistics Workshop, Rutgers University, New Brunswick, NJ, USA 6/26/2015

"Efficient importance sampling for false alarm probability under K-distributed sea clutter", the Fifth International Workshop in Sequential Methodologies 2015, University of Columbia, New York, NY, USA 6/23/2015

"Optimal exponentially tilted importance sampling in pricing financial derivatives", 2014財務數學與財務統計研討會, National Taipei University, Taipei, Taiwan 8/29/2014

"On spherical Monte Carlo simulations for multivariate normal probabilities", the Fourth Institute of Mathematical Statistics - Finance, Probability, and Statistics Workshop, University of Technology Sydney, Sydney, Australia 7/3/2014

"A direct method for calculating Greeks under Lévy processes", The 3rd Institute of Mathematical Statistics Asia Pacific Rim Meeting, Taipei, Taiwan 7/1/2014

"A direct method for calculating Greeks under Lévy processes", the 8th World Congress of the Bachelier Finance Society, Brussels, Belgium 6/1/2014

"Optimal exponentially tilted importance sampling for event simulation with applications", The 7th NCTU International Finance Conference and Celebration for Professor Cheng-Few Lee's Forty-year Teaching Career, National Chiao-Tung University, Hsinchu, Taiwan 1/10/2014

"State Price Densities implied from weather derivatives", The 14th Frontier Science Symposium 第十四屆尖端科學研討會, Nanjing, China 10/21/2013

"Bayesian analysis and application", 第二十二屆南區統計研討會暨2013年中華機率統計學會年會及學術研討會, National University of Kaohsiung, Kaohsiung, Taiwan 6/29/2013

"Efficient option pricing with importance sampling", the 4th Conference on Financial Engineering Theory and Practice 第四屆財務工程理論與實務研討會, Providence University, Taichung, Taiwan 5/17/2013

"SPDs implied from weather options", the Pricing Kernel Puzzle Workshop, The Konstanz University, Konstanz, Germany 7/12/2011

"Greeks of financial options", 第二十屆南區統計研討會暨2011年中華機率統計學會年會及學術研討會, National Chung Cheng University, Chiayi, Taiwan 6/24/2011

"Bayesian nonparametric approaches for financial option pricing", the 2nd Conference on Financial Engineering Theory and Practice 第二屆財務工程理論與實務研討會, Providence University, Taichung, Taiwan 5/16/2011

"Greeks of financial options", 2010開南大學「金融市場與風險管理」研討會, Kainan University, Taoyuan, Taiwan 12/23/2010

"Bayesian nonparametric approaches for financial option pricing", 2010 中國統計學社社員大會暨國際統計學術研討會, National Central University, Taoyuan 12/17/2010

"Implied state price densities", Workshop on Pricing Weather And Temperature, National Central University, Taoyuan, Taiwan 12/6/2010

INVITED SEMINARS

"On pricing and hedging inverse BTC options", 國立高雄大學統計學研究所, Kaohsiung, Taiwan 9/14/2022

"Statistics, AI, freedom of wealth?", 國立陽明交通大學百川學堂, Hsinchu, Taiwan 3/9/2022

"Calculating Risk Measures and Pricing Financial Derivatives Using Spherical Monte Carlo Simulation", Department of Quantitative Finance, National Tsing Hua University, Hsinchu, Taiwan 5/30/2019

"Calculating Risk Measures and Pricing Financial Derivatives Using Spherical Monte Carlo Simulation", Institute of Statistical Science, Academia Sinica, Taipei, Taiwan 3/18/2019

"A spherical Monte Carlo approach with applications in finance", Department of Statistics, Chinese Hong Kong University, Hong Kong 7/13/2017

"A novel spherical Monte Carlo method via group representation", Department of Applied Mathematics, National Sun Yat-Sen University, Kaohsiung, Taiwan 9/25/2015

"Optimal exponentially tilted importance sampling in pricing financial derivatives", Department of Applied Mathematics, National Chiao-Tung University, Hsinchu, Taiwan 10/21/2014

"蒙地卡羅方法與統計應用", 第五屆聯電夏令數學資優營, National Kaoshiung Normal University, Kaohsiung, Taiwan 8/24/2014

"A direct method for calculating Greeks under Lévy processes", Institute of Statistics at National Chiao-Tung University, Hsinchu, Taiwan 5/23/2014

"On spherical Monte Carlo simulations for multivariate normal probabilities", Department of Statistics, National Cheng-Kung University, Tainan, Taiwan 11/14/2013

"Overview on weather derivatives", Department of Atmospheric Sciences, National Taiwan University, Taipei, Taiwan 11/7/2013

"Ideas of kernel functions and applications to asset pricing", Colloquium of Shih-Hsin University Center for Computation and Empirical Statistical Studies, Taipei, Taiwan 9/26/2013

"Implied state price densities of weather derivatives", Am Weierstrass-Institut fuer Angewandte Analysis und Stochastik sprechen im Rahmen des Forschungsseminars Mathematische Statistik, Humboldt University, Berlin, Germany 7/11/2012

"Implied state price densities", Department of Finance, National Central University, Taoyuan, Taiwan 3/2/2012

"Bayesian random trees for calibrating State Price Densities of financial options", Department of Statistics, National University of Kaohsiung, Kaohsiung, Taiwan 9/21/2011

"Experience sharing (mathematics)", 聯電數學資優營, National Central University, Taoyuan, Taiwan 8/26/2011

"Implied state price densities: Nonparametric Bayesian approaches", Center for Applied Statistics and Economic, Humboldt University, Berlin, Germany 6/30/2011

"Bayesian nonparametric approaches for financial option pricing", Institute of Statistics, National Chiao-Tung University, Hsinchu, Taiwan 5/20/2011

"金融危機後，統計學家能做什麼?" Department of Finance, Kainan University, Taoyuan, Taiwan 4/20/2011

"Bayesian nonparametric approaches for financial option pricing" Department of Statistics, Tamkang University, New Taipei City, Taiwan 4/14/2011

"Implied state price densities: Nonparametric Bayesian approaches", Department of Mathematics, the Pennsylvania State University, University Park, PA, USA 2/1/2011

"Bayesian nonparametric approaches for financial option pricing", College of Statistical Management, Shanghai University of Finance and Economics, Shanghai, China 10/14/2010

"Greeks of financial options", Seminars in Financial Mathematics and Financial Statistics, Institute of Statistical Science, Academia Sinica, Taipei, Taiwan 9/3/2010

ACADEMIC ADVISEES

⋆: Indicates rewards or publications derived from thesis work.

Department of Information Management and Finance, National Yang Ming Chiao Tung University

張詠淇, 利用 Heston隨機波動率模型進行比特幣倒數型選擇權的定價與避險 8/2022
Yung-Chi Chang, Pricing and hedging inverse BTC options with Heston's stochastic volatility model
Department of Applied Mathematics, co-advised with Prof. Ming-Hsuan Kang
⋆ 榮獲2022 New Futures 期貨學術與實務交流研討會論文金質獎, Chang, Teng, and Härdle [2023]

陳律翔, 全球資產管理利用Black-Litterman模型於臺灣美國股票市場 8/2022
Lu-Xiang Chen, Global portfolio management with the Black-Litterman model using stocks in Taiwan and the US markets
Department of Applied Mathematics, co-advised with Prof. Ming-Hsuan Kang

李亦涵, 分群後分類方法於二元分類不平衡問題:應用於信用評分模型 8/2022
I-Han Lee, Cluster-then-Predict for Binary Classification with Imbalance Problem: Applications of Credit Scoring Models
Institute of Data Science and Engineering, co-advised with Prof. Chu-Lan Kao
⋆ Teng, Kang, Lee, and Bai [2024b]

呂映葇, 台灣期交所黃金選擇權的實證分析 8/2022
Ying-Rou Lu, Empirical analysis for gold options in Taiwan Futures Exchange

張尚文, *L*-各向同性多維常態分佈之最大概似估計與其應用 8/2021
Shang-Wen Chang, Maximum Likelihood Estimate of *L*-Isotropic Multivariate Normal Distributions and Its Applications
Department of Applied Mathematics, co-advised with Prof. Ming-Hsuan Kang
⋆ Teng, Li, and Chang [2020]

李育賢, 傳統方法與機器學習在資產定價上的實證比較 6/2020
Yu-Hsien Bill Li, An Empirical Comparison between Traditional Methods And Machine Learning in Asset Pricing Models
⋆ Teng, Li, and Chang [2020]; Teng and Li [2023]

吳哲杭, 多元GARCH模型與投資組合管理在上海證交所A股的實證比較 6/2020
Zhe-Hang Jeff Wu, An empirical comparison of multivariate GARCH models with a portfolio management application for the A-share in Shanghai Stock Exchange

趙祥安, Heston隨機波動率模型與NGARCH選擇權定價模型在匯率連動選擇權上之實證比較 6/2020
Xiang-An Zhao, An empirical comparison between the Heston stochastic volatility model and the NGARCH model in pricing quanto options
Department of Applied Mathematics, co-advised with Prof. Ming-Hsuan Kang
⋆ Teng and Zhao [2021]

林益嘉, 基於深度學習之時間序列因子於信用評級模型 6/2019
Yi-Chia Kelly Lin, Deep time-series feature extraction in credit scoring models

許至妤, 基於巴塞爾協議在金融風險管理中 VaR 估計的實證研究 6/2019
Chih-Yu Emma Hsu, An empirical investigation on estimations of VaR in financial risk management based on Basel Accords

陳奕翔, 機器學習中的Boosting方法及其在信用風險管理違約預測中的應用 7/2019
Yi-Xiang Arikson Chen, On Boosting Methods in Machine Learning with Applications in Delinquency Prediction for Credit Risk Management

黃春僖, 分群技術在大型資產配置的應用 6/2019
Chun-Xi Simon Huang, Large portfolio management with clustering techniques
Department of Applied Mathematics, co-advised with Prof. Ming-Hsuan Kang

Graduate Institute of Statistics, National Central University

葉惠瑄 6/2017
Huei-Hsuan Yeh, A Multivariate Markov Switching Model for Portfolio Optimization

應劭玄, 在馬可夫轉換模型下的資產配置 6/2017
Shao-Hsuan Jason Yin, Portfolio Allocation with Regime Switching Models

李宛柔 6/2017
Wan-Zoe Cora Lee, A Dynamic Rebalancing Strategy for Portfolio Allocation

吳柏辰 7/2016
Po-Chen Wu, Simulating average run lengths of a copula-based control chart with the use of control variates

江厚德 7/2016
Arron Chiang, An empirical comparison of various approaches in calculating Value at Risk

林煒紘 6/2015
Wei-Hung Lin, Asset allocation based on the Black-Litterman and GARCH models
⋆ Lin, Teng, and Yang [2020]

沈睿謙, 在Black-Scholes模型下運用選擇權資料進行動態避險之比較 6/2015
Rui-Qian Shen, Comparisons of dynamic hedging of financial options using different volatility estimators under the Black-Scholes model

楊舒媛 6/2015
Shu Yuang Yang, Modelling the VIX index and hedging the S&P 500 futures using VIX options

王聖翔 6/2014
Sheng-Xiang Wang, A direct method for calculating Greeks under some L'evy processes
⋆ Lyuu, Teng, Tseng, and Wang [2019]

曾耀德 6/2014
Yao-Te Tseng, Sensitivity analysis of credit derivatives
⋆ Lyuu, Teng, Tseng, and Wang [2019]

李宥萱 6/2014
Yu-Hsuan Lee, Improved mortality forecasting using Augmented Data
⋆ Luo, Teng, and Lee [2016]

陳彥勳 6/2013
Yen-Hsun Chen, Structure learning for hierarchical Archimedean copulas

沈志泰 6/2013
Chih-tai Shen, Estimating intensity processes from credit default swaps

吳諭昕 6/2013
Yu-Hsin Wu, Calibrating the state price densities using TAIEX options

陳醇潔 6/2012
Chun-Chieh Chen, Efficient option pricing with importance sampling
⋆ 榮獲100學年度中國統計學社論文獎優等; Teng, Fuh, and Chen [2016]

劉家齊 6/2012
Chia-Chi Liu, On pricing credit default swaps

趙彥茹 6/2012
Yen-ju Chao, Bayesian imputation with an application to mass-period functions of extrasolar planets
⋆ Teng, Hung, and Chao [2015]

陳彥鈞 6/2012
Yen-Chun Chen, Copula-based weather data forecasting

劉佑聖 6/2011
You-Sheng Liu, Portfolio selection based on copula models with applications in Taiwan stock market

吳嘉洋 6/2011
Jia-Yang Wu, Copula-based time series with applications to unemployment rates modeling

Undergraduate Projects

陳品蓁, 宋佩芩 8/2021-7/2022
Statistical modeling for the exchange rate between NTD and USD

林睿瑜, 陸恭葦 8/2019-7/2020
Time Series Forecasting in Credit Scoring Model
⋆ 林睿瑜榮獲109年度科技部大專生計畫，Time Series Forecasting in Credit Scoring Model，計畫編號：MOS109-2813-C-009-069-H。