洪　英　超

Ying-Chao Hung

E-mail: ychung@ntu.edu.tw
Institute of Industrial Engineering
National Taiwan University, Taipei 10617, Taiwan
Tel: 02-3366-9604

CURRENT POSITION

2022/8-present 台灣大學工業工程學研究所	教授	Taipei, Taiwan

PROFESSIONAL EXPERIENCE

2023/8- 台灣大學工業工程學研究所	EMS Instructor	Taipei, Taiwan
2023/7-2023/8 Institute of Statistical Mathematics	訪問學者	Tokyo, Japan
2020/8-2022/7 政治大學統計學系	系主任	Taipei, Taiwan
2020/12-2023/12 中國統計學社	學術委員	Taipei, Taiwan
2019/12-2023/12 國際統計計算協會 (IASC-ARS)	亞洲地區理事	ISI, Netherlands
2019/1-2022/1 中華機率統計學會	理事	Tainan, Taiwan
2018/8-2019/1 台灣大學數學系	兼任教授	Taipei, Taiwan
2018/7-2018/8 Department of Membership Knowledge & Growth Microsoft Corporation	訪問學者	Redmond, WA, USA
2018/2-2018/2 Department of Statistics & Applied Probability National University of Singapore	客座教授	Singapore
2017/7-2017/8 Institute of Statistical Mathematics	約聘客座教授	Tokyo, Japan

2016/7-2016/8	約聘客座教授	Gainesville, FL, USA
Informatics Institute, University of Florida		
2015/8-2015/8	客座教授	Kyoto, Japan
Department of Culture & Information Science Doshisha University		
2015/7-2022/7	EMBA Instructor	Taipei, Taiwan
政治大學商學院		
2015/2-2022/7	教授	Taipei, Taiwan
政治大學統計學系		
2013/8-2014/7	兼任副教授	Jhongli, Taiwan
中央大學統計研究所		
2012/8-2014/7	教授	Taipei, Taiwan
政治大學統計學系		
2010/8-2015/1	副教授	Taipei, Taiwan
政治大學統計學系		
2009/8-2010/7	助理教授	Taipei, Taiwan
政治大學 統計學系		
2007/3-2007/6	兼任助理教授	Taipei, Taiwan
台北醫學大學護理學院		
2002/8-2009/7	助理教授	Jhongli, Taiwan
中央大學統計研究所		

EDUCATION

2002/8	Ph.D.	Ann Arbor, MI, USA
統計學系	University of Michigan	
1995/6	M.B.A.	Taipei, Taiwan
統計學系	國立政治大學	
1993/6	B.S.	Taipei, Taiwan
數學系	國立台灣大學	

RESEARCH INTERESTS

統計計算與模擬, 資料驅動與隨機最佳化, 數位孿生驅動之最佳化, 統計機器學習, 格蘭傑因果關係檢定與應用, 資料科學應用

RESEARCH PAPERS

Publications

- Yi, Z.A.; ***Hung, Y.C.** (2026). Algorithmic Optimization of Facility Location and Demand Allocation in Shared Mobility Systems with Asymmetric Distance Measures, accepted by *Computers and Industrial Engineering* (IF = 7.3, SJR Rank: 35/647, Engineering (miscellaneous); 26/231, Management Science & Operations Research).
- ***Hung, Y.C.** (2024). A Review of Monte Carlo and Quasi-Monte Carlo Sampling Techniques. *WIREs Computational Statistics*, 16(1), e1637 (Top 10 Cited Article, IF = 4.4, SCI Rank: 7/168, Statistics & Probability)
- Tseng, N.F.; ***Hung, Y.C.**; Nakano, J. (2024). Granger Causality Tests Based on Reduced Variable Information. *Journal of Time Series Analysis,* 45(3), 444-462 (IF = 1.2, SJR Rank: 39/179, Statistics, Probability & Uncertainty)
- ***Hung, Y.C.**; Michailidis, G. (2022). A Novel Data-Driven Approach for Solving the Electric Vehicle Charging Station Location-Routing Problem. *IEEE Transactions on Intelligent Transportation Systems*, 23(12), 23858-23868 (IF = 9.551, SJR ranking in Engineering (Automotive Engineering, Mechanical Engineering): 6/102, 20/614)
- ***Hung, Y.C.**; Lok, H.P.H.; Michailidis, G. (2022). Optimal Routing and Design of Electric Vehicle Charging Systems with Stochastic Demands: A Heavy Traffic Approximation Approach. *European Journal of Operational Research*, 299(2), 526-541 (IF = 6.363, SJR ranking in Engineering (Industrial and Manufacturing Engineering): 11/368)
- Tsai, P.; Yan, G.; Liu, C.; **Hung, Y.C.**; Kahler, D.; Park, J.Y.; Potter, N.; Li, J.; Lu, B. (2020). Tumor phase recognition using cone-beam computed tomography projections and external surrogate information. *Medical Physics*, 47(10), 5077-5089 (Editor's Choice, IF = 4.071, SJR ranking in Biochemistry, Genetics & Molecular Biology (Biophysics): 15/140).
- ***Hung, Y.C.**; Michailidis, G.; Lok, H.P.H. (2020). Locating Infinite Discontinuities in Computer Experiments. *SIAM/ASA Journal on Uncertainty Quantification*, 8(2), 717-747 (IF = 2.179, SJR ranking in Mathematics (Discrete Mathematics & Combinatorics): 10/93).
- ***Hung, Y.C.**; Michailidis, G. Modeling and Optimization of Time-of-Use Electricity Pricing Systems. (2019). *IEEE Transactions on Smart Grid*, 10(4), 4116-4127 (IF = 8.267, SJR ranking in Computer Science (miscellaneous): 1/310 (2021), 1/460 (2020), 4/496 (2019)).
- Li, Y.F; Lu, L.H.; ***Hung, Y.C.** (2019). A New Clustering Algorithm Based on

Graph Connectivity. In: Arai K., Kapoor S., Bhatia R. (eds) *Intelligent Computing. SAI 2018. Advances in Intelligent Systems and Computing*, Vol 858, pp. 442-454, Springer, Cham.

- ***Hung, Y.C.**; Chen, W.C. (2017). Simulation of Some Multivariate Distributions Related to the Dirichlet Distribution with Application to Monte Carlo Simulations, *Communications in Statistics - Simulation and Computation*, 46(6), 4281-4296.

- ***Hung, Y.C.**; Chen, R.W.; Balakrishnan, N. (2016). On the Correlation Structure of Exponential Order Statistics and Some Extensions. *Mathematical Methods of Statistics*, 25(3), pp. 196-206.

- ***Hung, Y.C.**; Michailidis, G. (2015). Optimal Routing for Electric Vehicle Service Systems. *European Journal of Operational Research*, 247(2), pp. 515-524 (IF = 2.679, SJR ranking in Computer Science (miscellaneous): 6/600)

- ***Hung, Y.C.**; Tseng, N.F.; Balakrishnan, N. (2014). Trimmed Granger Causality Between Two Groups of Time Series. *Electronic Journal of Statistics,* 8(2), pp. 1940-1972 (5yr IF = 1.325, SJR ranking in Decision Sciences (Statistics, Probability and Uncertainty): 18/131)

- ***Hung, Y.C.**; Michailidis, G.; Chuang, S.C. (2014). Estimation and Monitoring of Traffic Intensities with Application to Control of Stochastic Systems. *Applied Stochastic Models in Business and Industry,* 30(2), pp. 200-217 (5yr IF = 0.811)

- Cheng, C.W.; ***Hung, Y.C.**; Balakrishnan, N. (2014). Generating Beta Random Numbers and Dirichlet Random Vectors in R: The Package rBeta2009. *Computational Statistics & Data Analysis*, 71, pp. 1011-1020 (5yr IF = 1.510, SJR ranking in Computer Science (Computational Theory and Mathematics: 16/495)

- ***Hung, Y.C.**; Chang, H.H. New Tests of Granger Causality for Two Groups of Time Series. *Proceedings of the 3rd International Symposium on Business and Social Sciences*, Sapporo, Hokkaido, Japan, July 22-24, 2014, pp. 500-511.

- Chen, R.B.; **Hung, Y.C.**; Wang, W.C.; Yen, S.W. (2013). Contour Estimation via Two Fidelity Computer Simulators Under Limited Resources. *Computational Statistics*, 28(4), pp. 1813-1834 (5yr IF = 0.667)

- ***Hung, Y.C.**; Tseng, N.F. (2013). Extracting Informative Variables in the Validation of Two-group Causal Relationship. *Computational Statistics*, 28(3), pp. 1151-1167 (5yr IF = 0.667)

- Chuang, S.C.; **Hung, Y.C.**; Tsai, W.C.; Yang, S.F. (2013). A Framework for Nonparametric Profile Monitoring. *Computers and Industrial Engineering*, 64, pp. 482-491 (5yr IF = 2.382, SJR in Computer Science (miscellaneous): 16/499)

- ***Hung, Y.C.** (2012). Wald's Identity for the Fair Coin-tossing Games and Some Applications. *The Open Statistics and Probability Journal*, 4, pp. 1-4.

- Yang, S.F.; Cheng, T.C.; **Hung, Y.C.;** Cheng, S.W. (2012). A New Chart for Monitoring Service Process Mean. *Quality and Reliability Engineering International*, 28(4), pp. 377-386 (5yr IF = 0.992, SJR ranking in Engineering (Safety, Risk, Reliability & Quality): 33/430)

- Chiang, C.R.; **Hung, Y.C.;** Chen, C.M.; Shieh, G.S. (2012). Inferring Genetic Interactions via A Data-driven Second Order Model. *Frontiers in Statistical Genetics and Methodology*, 3, Article 71.

- ***Hung, Y.C.**; Michailidis, G. (2012). Stability and Control of Acyclic Stochastic Processing Networks with Shared Resources. *IEEE Transactions on Automatic Control,* 57(2), pp. 489-494 (IF = 2.718, SJR ranking in Engineering (Control and Systems Engineering): 1/838)

- ***Hung, Y.C.;** Tsai, W.C.; Yang, S.F.; Chuang, S.C.; Tseng, Y.K. (2012). Nonparametric Profile Monitoring in Multi-dimensional Data Spaces. *Journal of Process Control,* 22(2), pp. 397-403 (5yr IF = 2.285, SJR ranking in Engineering (Control and Systems Engineering): 16/838)

- ***Hung, Y.C.** (2012). Optimal Bayesian Strategies for the Infinite-armed Bernoulli Bandit. *Journal of Statistical Planning and Inference*, 142(1), pp. 86-94 (5yr IF = 0.612)

- ***Hung, Y.C.**; Balakrishnan, N.; Cheng, C. W. (2011). Evaluation of Algorithms for Generating Dirichlet Random Vectors. *Journal of Statistical Computation and Simulation,* 81(4), pp. 445-459 (5yr IF = 0.573)

- ***Hung, Y.C.** "A Dynamic Scheduling Policy for Switched Processing Systems". *Proceedings of International Symposium on Innovative Management, Information & Production* (IMIP), Otaru, Japan, October 8-10, 2011, pp. 133-139.

- Tseng, N.F.; ***Hung, Y.C.** "A New Graphical Presentation of Granger Causal Structure for Multivariate Time Series". *Proceedings of International Symposium on Innovative Management, Information & Production* (IMIP), Otaru, Japan, October 8-10, 2011, pp. 128-132.

- *Yang, S.F.; **Hung, Y.C.;** Cheng, T.C.; Tsai, W.C.; Cheng, S.W. "A New Control Chart for Monitoring Service Process with Unknown Distributions". *Proceedings of the 8th IEEE International Conference on Service Systems and Service Management* (ICSSSM), Nankai University, Tianjin, China, June 25-27, 2011, pp. 1-5.

- Chuang, S. C.; ***Hung, Y.C.** (2010). Uniform Design over General Input Domains with Applications to Target Region Estimation in Computer Experiments. *Computational Statistics & Data Analysis*, 54(1), pp. 219-232 (5yr IF = 1.363, SJR ranking in Computer Science (Computational Theory and Mathematics: 20/823)

- ***Hung, Y.C.**; Chen, R.W.; Zame, A.; Chen, M.R. (2010). A Note on the First

Occurrence of Strings. *Electronic Journal of Combinatorics*, 17(1), #N5 (5yr IF = 0.636, SJR ranking in Mathematics (Theoretical Computer Science): 27/247)

- ***Hung, Y.C.** "An Optimal Bayesian Strategy for Bandit Problems with Applications to Data Routing Networks". *Proceedings of the 7th International Symposium on Management Engineering* (ISME), City of Kitakyushu, Japan, August 26-28, 2010, pp. 116-120.

- ***Hung, Y.C.**; Balakrishnan, N.; Lin, Y.T. (2009). Evaluation of Beta Generation Algorithms. *Communications in Statistics –Simulation and Computation*, 38(4), pp. 750-770 (5yr IF = 0.394)

- ***Hung, Y.C.** (2009). A Note on Randomized Shepp's Urn Scheme. *Discrete Mathematics*, 309 (6), pp. 1749-1759 (5yr IF = 0.680, SJR ranking in Mathematics (Theoretical Computer Science): 37/190)

- ***Hung, Y.C.**; Chang, C.C. (2008). Dynamic Scheduling for Switched Processing Systems with Substantial Service-mode Switching Times. *Queueing Systems: Theory and Applications*, 60, pp. 87-109 (5yr IF = 1.292, SJR ranking in Computer Science (Computational Theory and Mathematics): 12/347)

- ***Hung, Y.C.**; Michailidis, G. (2008). Modeling, Scheduling, and Simulation of Switched Processing Systems. *ACM Transactions on Modeling and Computer Simulation*, 18(3), Article 12.

- **Hung, Y.C.**; *Michailidis, G. "A Measurement Based Dynamic Policy for Switched Processing Systems". *Proceedings of the IEEE International Conference on Communications*, Glasgow, Scotland, June 2007, pp. 301-306. **(The Best Paper Prize, Acceptance rate ~ 900/2600)**

- **Hung, Y.C.**; *Michailidis, G. "Improving Quality of Service for Switched Processing Systems". *Proceedings of 11th Intl. Workshop on Computer-Aided Modeling, Analysis and Design of Communication Links and Networks* (*IEEE CAMAD*), Trento, Italy, June 2006, pp. 46-53.

- Shieh, G.S.; Jiang, Y.C.; **Hung, Y.C.**; Wang, T.F. "A Regression Approach to Reconstruct Gene Networks". *Proceedings of Taipei Symposium on Statistical Genomics*, Taipei, Taiwan, December 2004, pp. 357-370.

- ***Hung, Y. C.**, Michailidis, G., Bingham, D. R.. "Developing Efficient Simulation Methodology for Complex Queueing Networks". *Proceedings of the Winter Simulation Conference*, New Orleans, December 2003, pp. 152-159.

- **Hung, Y.C.**; *Michailidis, G. "On the Design of Efficient Simulations for Complex Queueing Networks". *Proceedings of the 36th Conference on Information Sciences and Systems* (CISS), Princeton University, March 2002, pp. 104-108.

Papers in Review/Preparation

- Hu, W.; **Hung, Y.C.** *Wu, W.B. Granger Causality Tests for High Dimensional VAR Processes, working paper.
- ***Hung, Y.C.**; Yi, Z.A. Throughput Analysis for EV Charging Systems With the Consideration of Battery Range, working paper.
- Wang, Y.T.; ***Hung, Y.C.** Monitoring and Early Detection of Instability in Manufacturing Process Using Vector Autoregression Models, working paper.
- Chen, R.W.; ***Hung, Y.C.** An Algebraic Block Construction for Doubly Even Magic Squares, working paper.
- ***Hung, Y.C.**; Andriani, D.E. Optimal Pricing Strategy for Perishable Goods with Stochastic Customer Behavior, working paper.
- **Hung, Y.C.** Modeling, Optimization, and Real-Time Dispatch for Public Bike Sharing Systems: Data-Driven Strategies, working paper.
- Chen, J.H.; **Hung, Y.C.** Real-Time Bike-Station Recommendation Under Non-stationary Two-Sided Demand and Inventory Imbalance, working paper.
- Lian, S.; **Hung, Y.C.** Predictive Replenishment Strategy for Perishable Products with Stochastic Customer Behavior, working paper.
- Lin, P.C.; Yi, Z.A.; **Hung, Y.C.** Optimal Routing for EV Charging Systems with Time-varying Input Parameters, working paper.
- Li, Y.Y.; **Hung, Y.C.** From Fixed-Time to Real-Time: Adaptive Traffic Signal Control with Vision Sensing and Stochastic Arrivals, working paper.
- He, Y.; **Hung, Y.C.** Stochastic Modeling and Optimization of Time-Dependent Power Demand Using a Fractional Orstein-Uhlenbeck Framework, working paper.
- Chang, I. W.; Chen, C.E.; **Hung, Y.C.**; Hsieh, C.H; Hsiao, S.F.; Chen, M.C.; Lin, C.H.; Shih, Y.C.; Wu, S.H.; Wang, T.H.; Liao, W.C.; Ma, H.; Perng, C.K. A Machine Learning Approach for Classifying the Burn Degree Based on Indocyanine Green Video Angiography, to be submitted to *Burns*.
- **Hung, Y.C.**; Li, Y.F.; Lu, L.H. Acceleration of Partitioning Hard Kernel Clustering Based on Spectral Analysis, working paper.

TEACHING

- Linear Algebra
- Engineering Statistics
- Introduction to Engineering
- Business Statistics
- Mathematical Statistics
- Applied Probability Models
- Stochastic Process
- Simulation Analysis
- Statistical Computing and Simulation

- Multivariate Analysis
- Statistical Machine Learning
- Time Series
- Statistical Methods and Stochastic Processing Networks
- Response Surface Methodology
- Advanced Research Methods
- Business Data Analytics and Management (EMBA)

HONORS AND AWARDS

- (2024) 論文指導獎 – 台灣大學工學院
- (2023) **Top 10 Cited Article** - Certificated by WIREs Computational Statistics
- (2021) 學術研究獎 – 政治大學
- (2020) 科技部研究獎勵 – 科技部
- (2019) 科技部研究獎勵 – 科技部
- (2019) 教學優良獎 – 政治大學商學院
- (2018) 特殊優秀人才獎勵 – 科技部
- (2017) 特殊優秀人才獎勵 – 科技部
- (2017) 教學優良獎 – 政治大學商學院
- (2016) 學術研究獎 – 政治大學
- (2016) 教學特優獎 – 政治大學商學院
- (2016) 特殊優秀人才獎勵 – 科技部
- (2015) 特殊優秀人才獎勵 – 科技部
- (2015) 教學優良獎 – 政治大學商學院
- (2014) 特殊優秀人才獎勵 – 科技部
- (2014) 教學優良獎 – 政治大學商學院
- (2013) 特殊優秀人才獎勵 – 國家科學委員會
- (2012) 特殊優秀人才獎勵 – 國家科學委員會
- (2012) 教學特優獎 – 政治大學商學院
- (2010) 教學優良獎 – 政治大學商學院
- (2007) **The Best Paper Prize** - IEEE International Conference on Communications (Acceptance rate ≈ 900/2600)
- (2005) 教學優良獎 – 中央大學理學院

- (2003) 教學優良獎 – 中央大學理學院

JOURNAL REFEREE

- IEEE Transactions on Automatic Control
- IEEE Transactions on Smart Grid
- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Transportation Electrification
- European Journal of Operational Research
- Computers and Operationas Research
- IIE/IISE Transactions
- Computers and Industrial Engineering
- Transportation Research Part D: Transport and Environment
- Transportmetrica A: Transport Science
- Queueing Systems: Theory and Applications
- Journal of Scheduling
- Journal of Process Control
- Journal of Cleaner Production
- International Journal of Energy Research
- Technometrics
- Computational Statistics and Data Analysis
- Journal of Statistical Planning and Inference
- Statistical Methodology
- Statistics and Probability Letters
- Journal of Applied Statistics
- Computational Statistics
- Journal of Statistical Computation and Simulation
- Communications in Statistics - Theory and Method
- Communications in Statistics - Simulation and Computation
- Applied Stochastic Models in Business and Industry
- Econometrics
- Quality Technology & Quantitative Management
- International Journal of Information and Management Sciences
- Journal of Data Science
- Journal of the Chinese Statistical Association

SELECTED CONFERENCE PAPERS AND PRESENTATIONS

- Granger Causality Tests for High Dimensional VAR Processes, Joint Meetings of 2025 Taipei International Statistical Symposium and the 13th ICSA International Conference, Academia Sinica, Taipei, Taiwan, 2025/12 **(Invited Speaker)**

- Nonpivotal Granger Causality Tests Based on Vector Autoregressive Models, The 6th International Conference on Econometrics and Statistics (EcoSta), Waseda University, Tokyo, Japan, 2023/8 **(Invited Speaker)**

- Locating Infinite Discontinuities in Computer Experiments, The Annual Meeting of Taiwan Society for Industrial and Applied Mathematics (TWSIAM), National Cheng Kung University, Tainan, Taiwan, 2020/7 **(Invited Speaker)**

- A New Clustering Algorithm Based on Graph Connectivity, IEEE Computing Conference, London, UK, 2018/7

- A New Clustering Algorithm via Graph Connectivity, Conference of International Federation of Classification Societies, Japanese Classification Society and ISM, Tokai University, Tokyo, Japan, 2017/8 **(Invited Speaker)**

- Multivariate Control Charts for Monitoring Granger Causal Structure, Annual Meeting of the Chinese Statistical Association and Statistical Symposium, National Taipei University, New Taipei City, Taiwan, 2015/12 **(Invited Speaker)**

- New Tests of Granger Causality for Two Groups of Time Series, The 3rd International Symposium on Business and Social Science, Sapporo, Japan, 2014/7 **(Invited Speaker)**

- Efficient Algorithms for Generating Beta and Some Related Distributions, Annual Meeting of the Chinese Statistical Association and Statistical Symposium, Tamkang University, New Taipei City, Taiwan, 2012/12 **(Invited Speaker)**

- A New Control Chart for Monitoring Service Process with Unknown Distributions, The 8th IEEE International Conference on Service Systems and Service Management (ICSSSM), Nankai University, Tianjin, China, 2011/6

- A New Graphical Presentation of Granger Causal Structure for Multivariate Time Series, International Symposium on Innovative Management, Information & Production (IMIP), Otaru, Japan, 2011/10

- A Dynamic Scheduling Policy for Switched Processing Systems, International Symposium on Innovative Management, Information & Production (IMIP), Otaru, Japan, 2011/10

- A Fast Generating Algorithm for Dirichlet Random Vectors with Some Extensions, The International Conference on Advances in Probability and Statistics – Theory and Applications: A Celebration of N. Balakrishnan's 30 Years of Contributions to Statistics, The Chinese University of Hong Kong, Hong Kong, 2011/12 **(Invited Speaker)**

- An Optimal Bayesian Strategy for Bandit Problems with Applications to Data Routing Networks, The 7th International Symposium on Management

Engineering (ISME), City of Kitakyushu, Japan, 2010/8 **(Invited Speaker)**

- Measurement and Monitoring of Traffic Intensities with Applications to Control of Stochastic Systems, Annual Meeting of the Chinese Statistical Association and Statistical Symposium, National Central University, Zhongli, Taiwan, 2010/12 **(Invited Speaker)**

- Design of Efficient Methodology for Target Region Estimation in Computer Experiments, The 5th Statistics and Machine Learning Workshop, National Cheng Kung University, Tainan, Taiwan, 2009/4 **(Invited Speaker)**

- Uniform Design over Convex Input Domains with Applications to Computer Experimentsd, Joint Statistical Meeting, Washington DC, USA, 2009/8

- Optimal Bayesian Strategies for Bandit Problems with Infinitely Many Arms, Annual Meeting of the Chinese Statistical Association and Statistical Symposium, National Chengchi University, Taipei, Taiwan, 2009/11 **(Invited Speaker)**

- Uniform Design over Convex Input Regions with Applications to Complex Queueing Models, The 7th World Congress in Probability and Statistics (Joint with Bernoulli Society and IMS), Singapore, 2008/7

- Stability and Control of Acyclic Stochastic Processing Networks with Shared Resources, The 8th Applied Probability Workshop, Xitou, Taiwan, 2008/10 **(Invited Speaker)**

- A Measurement Based Dynamic Policy for Switched Processing Systems, IEEE International Conference in Communications, Glasgow, Scotland, 2007/6 (**Best Paper Prize, Invited Speaker)**

- Improving Quality of Service for Switched Processing Systems, The 11th International Workshop on Computer-Aided Modeling, Analysis and Design of Communication Links and Networks (IEEE CAMAD), Trento, Italy, 2006/6

- Solving Complex Network Optimization Problems Using Response Surface Methodology, Joint Statistical Meeting, Seattle, USA, 2006/8

- A Regression Approach to Reconstruct Gene Networks, Taipei Symposium on Statistical Genomics, Taipei, Taiwan, 2004/12

- Developing Efficient Simulation Methodology for Complex Queueing Networks, Winter Simulation Conference, New Orleans, 2003/12

- On the Design of Efficient Simulations for Complex Queueing Networks, The 36th Conference on Information Sciences and Systems (CISS), Princeton University, 2002/3

RESEARCH GRANT

- (2026)共享單車系統之整合隨機建模、容量配置與即時調度 (1/1) – 國科會
- (2025)電動車充電站之區位途程及容量分配等最佳化問題 (3/3) – 國科會
- (2025)以非樞紐統計量為基礎之格蘭傑因果關係檢定及其在高維度 VAR 模型的推廣 (2/2) – 國科會
- (2024)電動車充電站之區位途程及容量分配等最佳化問題 (2/3) – 國科會
- (2024)以非樞紐統計量為基礎之格蘭傑因果關係檢定及其在高維度 VAR 模型的推廣 (1/2) – 國科會
- (2023)電動車充電站之區位途程及容量分配等最佳化問題 (1/3) – 國科會
- (2022)解決汽車服務系統之區位途程問題:最佳化和資料驅動方法 (2/2) - 科技部
- (2021) 解決汽車服務系統之區位途程問題:最佳化和資料驅動方法 (1/2) - 科技部
- (2020) 圖論分羣和相關之加速演算法(2/2) -科技部
- (2019) 圖論分羣和相關之加速演算法(1/2) -科技部
- (2018) 找出電腦實驗中產生無窮發散輸出之參數設定(2/2) -科技部
- (2017) 找出電腦實驗中產生無窮發散輸出之參數設定(1/2) -科技部
- (2016) 多變量時間序列格蘭傑因果關係結構之探索(2/2) - 科技部
- (2015) 多變量時間序列格蘭傑因果關係結構之探索(1/2) - 科技部
- (2014) 多面體均勻分配之產生及其在蒙地卡羅模擬之應用- 科技部
- (2013) 產生迪氏分配之高效率演算法及應用 - 科技部
- (2012) 二群多變量時間數列間之簡化因果關係 - 科技部
- (2012) 血品供應滿意度調查問卷統計分析計畫 – 醫療財團法人血液基金會
- (2012) 捐血服務需求與滿意度調查資料分析計畫 – 醫療財團法人血液基金會
- (2011) 流量強度的測量與監控及其在隨機系統控制上之應用 - 科技部
- (2010) 吃角子老虎問題之最佳貝氏策略 - 科技部
- (2009) 凸面區域之均勻設計及其在電腦實驗上之應用 - 科技部
- (2008) 貝他分配演算法之評估 - 科技部
- (2007) 以測量為基準之交換處理系統動態策略 – 國科會
- (2006) 解決複雜網路最佳化問題之演算法設計 – 國科會
- (2005) 廣泛的 Shepp 甕問題之隨機性觀點 – 國科會
- (2004) 設計高效率之模擬複雜網路模型演算法 – 國科會
- (2003) 可資源共享之平行分散處理系統的分析與研究(2/2)-國科會

- (2002) 可資源共享之平行分散處理系統的分析與研究(1/2)-國科會

GRANT PROPOSALS REVIEW

- NSC/MST (科技部) Research Grants
- NSTC (國科會) Research Grants

ACADEMIC ASSOCIATION

- Member of International Statistical Institute (ISI), 2019-present
- Member of American Statistical Association (ASA), 2002-2009
- 中華機率統計學會永久會員, 2002 -present
- 中國工業工程學會永久會員, 2022 -present

STUDENT SUPERVISION

PhD Graduates (at National Central University)

- (2009) Shi-Chung Chuang, Uniform Design over General Regions with Applications to Computer Experiments, Currently an Associate Manager in Intelligent Manufacturing at TSMC

Master's Graduates (at National Central University)

- (2004) Chi-Tsung Chiu, Hui-Min Chang
- (2005) Shih-Chung Chuang, Sheng-Kai Su, Yueh-Ming Chen
- (2006) Chun-Yi Lai, Chia-Hsiang Yu
- (2007) Chun-Chieh Chang, Wen-Chih Cheng
- (2008) Yi-Te Lin, Yi-Ping Lin, Cheng-Lin Chan
- (2009) Ching-Wei Cheng, Chia-Yeh Lee, Yu-Wei Lai

Master's Graduates (at National Chengchi University)

- (2011) Chih-Fen Hsieh
- (2012) Shih-Chün Liu
- (2013) Wei-Cheng Chen
- (2014) Hsin-Hui Chang
- (2015) Chen-Li Yu, Min-Huang Tsai
- (2016) Chia-Li Lin
- (2017) Chia-Chi Wang

- (2018) Bo-Hsi Lu, Yu-Feng Li
- (2019) Yu-Cheng Lin
- (2020) Chin-Wei Hsu, Ming-Yang Nien, Yu-Teng Chen
- (2021) Cheng-Han Hsieh
- (2022) Hui-Yuan Yao

Master's Graduates (at National Taiwan University)

- (2024) Pei-Chen Lin, Zih-An Yi, Ting-Wei Wu
- (2025) Devina Evanty Andriani, Yan-Chi Ju, Yung-Ti Chan, Jun-Min Chen
- (2026) Yi-Ting Wang, Yue-Yun Li, Yi He, Jian-Hua Chen, Lian Seet

Executive Master's Graduates (at National Taiwan University)

- (2025) Chih-Hua Ke, Tzu-Chun Kao, Pei-En Kuo
- (2026) Ta-Hsien Lin

MY LABORATORY

The Data Analytics and Optimization Laboratory is dedicated to advancing the frontiers of data-driven decision-making and operational excellence. Our interdisciplinary team collaborates at the intersection of data science, optimization, and machine learning to solve complex real-world problems across diverse industries.

Key Focuses: Stochastic Modeling and Optimization for Digital-Twin Systems; Data-driven Simulation and Real-Time Decision Optimization; Computational Statistics; High-Dimensional Granger Causal Inference; Statistical Machine Learning and Data Science