



## Curriculum Vitae Shu-Heng Chen

[\[Address\]](#) [\[Education\]](#) [\[Employment\]](#) [\[Edited Books and Volumes\]](#) [\[Referred Journal Articles\]](#)  
[\[Journal Articles under Review\]](#) [\[Referred Chapters in Books\]](#) [\[Referred Papers in Proceedings\]](#)  
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### Address [Top](#)

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### Education [Top](#)

- Ph.D. Department of Economics, University of California, Los Angeles, 1992
- M.A., Department of Mathematics, University of California, Los Angeles, 1991
- M.A., Department of Economics, National Taiwan University, 1985
- B.A., Department of Economics, National Chengchi University, 1981

### Employment [Top](#)

- 2016-present, Vice President, National Chengchi University.
- 2015-present, Regional Editor Asia and Oceania, International Journal of Financial Engineering and Risk Management, Inderscience Publishers.
- 2013-present, Editorial Board Member of the Book Series on Physics of Society: Econophysics and Sociophysics, Oxford University Press.
- 2012-present, Editor of the Book Series on Computational and Quantitative Social Science, Wiley.
- 2012-present, Editor, *Economia Politica*, Journal of Analytical and Institutional Economics.
- 2012-present, Advisory Committee, Center for Research in Econometric Theory and Applications, National Taiwan University
- 2011-present, Scientific Committee of School of Social Sciences, University of Trento, Italy.
- 2011-present, Editors-in-Chief, *Journal of Economic Interaction and Coordination* (Springer)
- 2011-present, Advisory Board, University of Sheffield Management School Advisory Board, University of Sheffield, UK.
- 2008-present, Distinguished Professor, Department of Economics, National Chengchi University
- 2008-present, Organizer, Experimental Economics Lab, National Chengchi University
- 2004-present: Full Professor, Center for the Study of Banking and Finance, National Taiwan University
- 2004-present: Editors-in-Chief, *New Mathematics and Natural Computing* (World Scientific)
- 2000-present: Director, AI-Econ Research Center, National Chengchi University
- 2013-2015, Editor, *International Journal of Financial Engineering and Risk Management*, Inderscience Publishers.
- 2011-2014, Advisory Board Member, Society for Computational Economics.
- 2011-2012, Chair of the IEEE Computational Finance and Economics Technical Committee (IEEE's Computational Intelligence Society (CIS))
- 2011, May-June, Visiting Professor, Faculty of Economics, University of Trento, Italy
- 2009, Oct –Nov, *Lectio Magistralis* Visiting Professor, Faculty of Economics, University of Trento, Italy.

- 2009, July 10 -20, Visiting Professor, Faculty of Business, University of Technology at Sydney.
- 2008-2014, Dean of Office of International Cooperation, National Chengchi University
- 2007- 2010, Vice Chair of the IEEE Computational Finance and Economics Technical Committee (IEEE's Computational Intelligence Society (CIS))
- 2006-2010, Editor, Journal of Economic Interaction and Coordination (Springer)
- 2006-2008, Director, Center of International Education and Exchange, National Chengchi University
- 2005-2006: Adjunct Professor, Department of Finance, National Taiwan University
- 2004-2014: Associate Editor, Journal of Economic Behavior and Organization
- 2004-2008, International Journal of Innovational Computing & Information Control
- 2003-2004: Associate Editor, IEEE Transactions on Evolutionary Computation
- 2000-2008: Full Professor, Department of Economics, National Chengchi University
- 2000-2003: Adjunct Professor, Department of Economics, National Central University
- 1997, July 19-29: Consultant of the Department of Finance and Decision Sciences (FDS), School of Business, Hong Kong Baptist University
- 1996-1997: Visiting Professor, Department of Automatic Control Engineering, Huazhong University of Science & Technology, Wuhan, Hubei, P.R. China
- 1995-2000: Adjunct Professor, Department of Economics, National Central University
- 1995-1999: The Editor of Taiwan Journal of Political Economy
- 1992-1999: Associate Professor, Department of Economics, National Chengchi University
- 1991-1992 :Research Assistant of Professor John J. McCall and Professor Kumaraswamy Velupillai, Department of Economics, University of California, Los Angeles
- 1987-1990: Reader, Department of Economics, University of California, Los Angeles
- 1986-1987: Teaching Assistant, Department of Economics, University of California, Los Angeles
- 1986-1987: Research Assistant of Professor Edward Leamer, Department of Economics, University of California, Los Angeles
- 1984-1985: Research Assistant of Professor Gi-Li, Yen, Chung-Hua Institution for Economic Research

## Awards and Grants

- 2014 Fulbright Senior Scholar, New School for Social Research, New York.
- 2014 NordSud International Prize, Foundation Pescarabruzzo, 2014.
- NCCU Distinguished Research Excellence Award: 2009, 2010, 2011
- NCCU Excellent Research Award: 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2012, 2013, 2014, 2015.
- NCCU College of Social Sciences Excellent Research Award: 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015.
- NCCU Faculty Excellent Service Award: 2006.
- Computer Society of the Republic of China: 1997.
- The Best Researcher of the Year, College of the Social Science, National Chengchi University, 1996.
- Ministry of Science and Technology (MOST) Grant: Project Title "Behavioral and Evolutionary Macroeconomics with Social-Network Embeddedness: Toward an Agent-Based Macroeconomic Laboratory", MOST 103-2410-H-004-009-MY3, 2014-2017.
- National Science Council Grant: Project Title "The Complexity of a Good Society: On the Study of Its Five Elements Using Agent-Based Models and Human-Subject Experiments", NSC 101-2410-H-004 -010 -MY2, 2012 – 2014.
- Taiwan Stock Exchange (TSE) Commissioned Research Project, "The Simulation and the Analysis of the Impacts of the Opening Market Transparency," 2012.
- Taiwan Stock Exchange (TSE) Commissioned Research Project, "The Analysis of the Impacts of the Closing Market Transparency," 2012.
- National Science Council Grant (Type A): 1994, 1995, 1996, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2005, & 2006.
- National Science Council Grant: Project Title "The International Influence Enhancement Pilot Project: From Agent-Based Computational Economics to Computational Social Science", NSC 98-2911-I-004 -007, 2009-2012.
- National Science Council Grant: Project Title "Emergent Complexity of Cognitive, Psychological and Cultural Factors: An Integrated Framework of Agent-Based Computational Economics, Experimental Economics and Neuroeconomics", NSC 98-2410-H-004-045-MY3, 2009 – 2012.
- National Science Council Grant: Project Title "The FP-7 Cook Project: The Human Factors of Emergent Social Intelligence: Empirical Evidence Based on Experimental Markets and Games", NSC 97-2915-I-004 -001, 2008-2009.
- National Science Council Grant: Project Title "From Agent Engineering to Market Design: An Integrated Platform Based on an Agent-Based Simulation Framework", NSC 95-2415-H-004-002-MY3, 2006 – 2009.

- National Science Council Grant on Project “Bounded Rationality and the Elasticity Puzzle: What Can We Learn from the Agent-Based Computational Capital Asset Pricing Model?”, NSC94-2415-H-004-003, 2005.
- National Science Council Grant on Project “Lottery Markets-Design, Micro-Structure, and Macro-Behavior: An ACE Approach”, NSC93-2415-H-004-005, 2004.
- National Science Council Grant on Project “Computational Intelligence in Economics and Finance: A Proposal to Promote Its Research Opportunities to Taiwan Academy”, NSC93-2420-H-004-003, 2004.
- National Science Council Grant on Project “Reading Guide to The Science of the Artificial by Herbert Simon”, NSC 92-2420-H-004-006, 2003.
- National Science Council Grant on Project “A functional-Modularity Approach to the Agent-based Computational Economic Modeling of Innovation”, NSC 92-2415-H-004-005, 2003.
- National Science Council Grant on Project “Simulating the Evolution of Portfolio Behavior in a Multiple-Asset Agent-Based Artificial Stock Market”, NSC 91-2415-H-004-005, 2002.
- National Science Council Grant on Project “Self-Organizing Maps as a Foundation for Charting or Geometric Pattern Recognition in Financial Time Series”, NSC 90-2415-H-004-018, 2001.
- National Science Council Grant on Project “Evolving Traders and the Business School with Genetic Programming: A New Architecture of the Agent-Based Artificial Stock Market”, NSC 89-2415-H004-008, 1999.
- National Science Council Grant on Project “Taiwan-German Joint Research Collaboration Program: Multi-Agent Simulation of Artificial Financial Market”, NSC87-I-2911-15, January-December, 1999.
- National Science Council Grant on Project “Simulating and Analyzing Financial Time Series with GP-Based Artificial Financial Markets”, NSC 88-2415-H-004-008, August 1998 - July 1999.
- National Science Council Grant on Project “Taiwan-German Joint Research Collaboration Program, NSC87-I-2911-15, January-December, 1998.
- National Science Council Grant on Project “Genetic Programming and Evolutionary Artificial Neural Nets in Financial Engineering”, NSC872415H004011, 1997.
- National Science Council Grant on Project “Evolutionary Computation in Computable General Equilibrium: An Integration of Genetic Algorithms, Genetic Programming and Artificial Neural Networks”, NSC862415H004022, 1996.
- National Science Council Grant on Project “Genetic Programming in Econometrics: An Initial Exploration”, NSC852415H004001, 1995.
- National Science Council Grant on Project “Genetic Programming and Bounded Rationality in Macroeconomics”, NSC842415H004001, 1994.
- National Science Council Grant on Project “Cellular Automata in Macroeconomic Modeling”, NSC830301H004002, 1993.
- Non-Citizen Tuition Waiver, UCLA, 1986–1989.
- Ministry-of-Education Scholarship, Taiwan, 1985–1987.
- Advanced Public Officer Examination. Passed as an Economic Analyst, 1981.

## PUBLICATIONS: Edited Books and Volumes [Top](#)

1. The Handbook of Computational Economics and Finance, (with Mak Kaboudan and Ye-Rong Du), Oxford University Press, forthcoming.
2. Mathematics in Economics: Foundations, Philosophy and Epistemology (with Kumaraswamy Velupillai), World Scientific.
3. *Agent Based Modelling and Network Dynamics* (with Akira Namatame). Oxford University Press, 2016..
4. *Agent-Based Computational Economics: How the Idea Originated and Where It Is Going*. Routledge, 2015.
5. *Advances in Computational Social Science: The Fourth World Congress, Agent-Based Social Systems*, Volume 11, (with Takao Terano, Ryuichi Yamamoto, and Chung-Ching Tai), Springer, 2014.
6. Guest editor (with Dash Wu and David Olson), *Information Sciences*, a special issue on **Business Intelligence in Risk Management**, 256. 2014. [\[SCI\]](#)
7. Guest editor (with Sai-Ping Lee), **International Review of Financial Analysis**, a special issue on *Complexity and Non-Linearities in Financial Markets: Perspectives from Econophysics*, Vol 23, 2012. [\[EconLit, FLI\]](#)
8. *Agent-Based Approaches in Economic and Social Complex Systems VIII, Agent-Based Social Systems*, Volume 8, (with Takao Terano, Ryuichi Yamamoto), Springer, 2011.
9. *Multi-Agent Applications with Evolutionary Computation and Biologically Inspired Technologies: Intelligent*

- Techniques for Ubiquity and Optimization* (with Yasushi Kambayashi and Hiroshi Sato), IGI Global, Hershey PA, USA, 2011.
10. Guest editor (with Bob McKay and Xuan Hoai Nguyen), **International Journal on Knowledge Based Intelligent Engineering Systems**, a special issue on Genetic Programming, 12(1), 2008.
  11. *Computational Intelligence in Economics and Finance: Volume II*, (with P. P. Wang and Tzu-Wen Kuo), Springer-Verlag, 2007.
  12. *Simulated Evolution and Learning*, (with Tzai-Der Wang, Xiaodong Li, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, Xin Yao), **Lecture Notes in Computer Science**, ( LNCS 4247), Springer. 2006. [SCIE]
  13. *Computational Economics: A Perspective from Computational Intelligence*, (with Lakhmi Jain and Chung-Ching Tai), **Computational Intelligence and its Application Series**, (series editors: Lakhmi Jain and Colin Fyfe), Idea Group Publishing, 2005.
  14. *Applications of Artificial Intelligence in Finance and Economics*. (with Jane Binner and Graham Kendall), Elsevier, 2004. [SSCI]
  15. *Multi-Agent for Mass User Support*, (with Koichi Kurumatani and Azuma Ohuchi), **Lecture Notes in Artificial Intelligence**, Springer, 2004.
  16. *Computational Intelligence in Economics and Finance*, (with P. Wang), **Series on Advanced Information Processing** (series editor: L. Jain), Springer-Verlag, 2002. [SCIE]
  17. *Genetic Algorithms and Genetic Programming in Computational Finance*, Kluwer. 2002.
  18. *Evolutionary Computation in Economics and Finance*, **Series on Studies in Fuzziness and Soft Computing**, Vol. 100 (series editor: J. Kacprzyk), Physica-Verlag, A Springer-Verlag Company, 2002.

## PUBLICATIONS: Referred Journal Articles [Top](#)

1. "Heterogeneity in Generalized Reinforcement Learning and Its Relation to Cognitive Ability," (with Ye-Rong Du), *Cognitive Systems Research*, forthcoming. [SSCI]
2. "Transitional Student Admission Mechanism from Tracking to Mixing: An Agent-Based Policy Analysis," (with Connie Houning Wang and Bin-Tzong Chie), *Evolutionary and Institutional Economic Review*, forthcoming. DOI 10.1007/s40844-016-0058-x
3. "Information Aggregation and Computational Intelligence: Limits to Price Discovery," (with Ragupathy Venkatachalam), *Evolutionary and Institutional Economic Review*, forthcoming. DOI 10.1007/s40844-016-0048-z
4. "On the Complexity of the El Farol Bar Game: A Sensitivity Analysis," (with Umberto Gostoli), *Evolutionary Intelligence*, forthcoming. DOI 10.1007/s12065-016-0138-1. [Scopus]
5. "Matching Impacts of School Admission Mechanism: An Agent-Based Approach," (with Connie Houning Wang and Weikai Chen), *Eastern Economic Journal*, forthcoming. [Scopus]
6. "Social Norms, Costly Punishment and the Evolution of Cooperation," (with Tong-Kui Yu and Honggang Li), *Journal of Economic Interaction and Coordination*, 11(2):313-343, 2016 [SSCI]
7. "The Optimal Pricing of a Market Maker in a Heterogeneous Agent Economy," (with Bin Guo, Wei Zhang, and Yongjie Zhang), *Finance Research Letters* 14:178–187, 2015 [SSCI].
8. "Network-Based Trust Games: An Agent-Based Model," (with Bin-Tzong Chie and Tong Zhang), *Journal of Artificial Societies and Social Simulation* 18 (3):5, <http://dx.doi.org/10.18564/jasss.2767> 2015 [SSCI].
9. "Coordination in the El Farol Bar Problem: The Role of Social Preferences and Social Networks," (with Umberto Gostoli), *Journal of Economic Interaction and Coordination*, forthcoming, 2015 [SSCI].
10. "Limit Order Book Transparency and Order Aggressiveness at the Closing Call: Lessons from the TWSE 2012 New Information Disclosure Mechanism," (with Yi-Heng Tseng), *Pacific-Basin Finance Journal*, 35(A):241-272, 2015. [SSCI]

11. "Don't Get Mad, Get Even: Emotions in Ultimatum Games," (with Chia-Yang Lin), *Interdisciplinary Journal of Economics and Business Law*, 4(2): 36-72. 2015.
12. "The Use of Knowledge in Prediction Markets: How Much of Them Need He Know?" (with Bin-Tzong Chie), *Journal of Information Science and Engineering* 31(1):1-22. 2015 **[SCIE]**
13. "Neuroeconomics and Agent-Based Computational Economics," *International Journal of Applied Behavioral Economics* 3(2): 15-34. 2014.
14. "Competition in a New Industrial Economy: Toward an Agent-Based Economic Model of Modularity," (with Bin-Tzong Chie), *Administrative Sciences* 4(3):192-218. 2014.
15. "Social Networks and Macroeconomic Stability," (with Chia-Ling Chang and Ming-Chang Wen), *Economics: The Open-Access, Open-Assessment E-Journal*, Vol. 8, 2014-16. <http://dx.doi.org/10.5018/economics-ejournal.ja>. 2014-16 **[SSCI]**
16. "Business Intelligence in Risk Management: Some Recent Progresses," (with Dash Wu and D Olson), *Information Sciences*, 256:1-7. 2014. **[SCI]**
17. "Social Networks, Social Interaction and Macroeconomic Dynamics: How Much Could Ernst Ising Help DSGE? (with Chia-Ling Chang and Yi-Heng Tzeng), *Research in International Business and Finance* 30: 312-335. 2014. <http://dx.doi.org/10.1016/j.ribaf.2012.08.004> **[FLI]**
18. "Cognitive Capacity and Cognitive Hierarchy: A Study Based on Beauty Contest Experiments," (with Ye-Rong Du and Lee-Xiang Yang), *Journal of Economic Interaction and Coordination*, 9: 69-105. 2014. **[SSCI]**,
19. "Non-Price Competition in a Modular Economy: An Agent-Based Computational Model," (with Bin-Tzong Chie), *Economia Politica: Journal of Analytical and Institutional Economics*, XXX(3): 273-300. 2013. **[SSCI]**"
20. "Interactions in the New Keynesian DSGE models: The Boltzmann-Gibbs machine and social networks approach," (with Chia-Ling Chang), *Economics: The Open-Access, Open-Assessment E-Journal*, 6(2012-26). 2012. Retrieved from <http://dx.doi.org/10.5018/economics-ejournal.ja.2012-26> **[SSCI]**
21. "To Whom and Where the Hill Becomes Difficult to Climb: Effects of Cognitive Capacity and Personality in Experimental DA Markets," (with Umberto Gostoli, Chung-Ching Tai, Kuo-Chuan Shih), *Advances in Behavioral Finance & Economics*, 2(2): 41-75. 2012.
22. "Microstructure Dynamics and Agent-based Financial Markets: Can Dinosaurs Return?" (with Michael Kampouridis and Edward Tsang), *Advances in Complex Systems*, 15 (supp 2). 2012. doi: 10.1142/S0219525912500609 **[SSCI, SCI]**.
23. "不同公司治理情境之股權評價：類神經模糊專家系統之應用"，(與高惠松, 李建然聯合發表)，*管理與系統*, 19( 3): 378-408. 2012. **[TSSCI]**
24. "Interactions in DSGE Models: The Boltzmann-Gibbs Machine and Social Networks Approach," (with Chia-Ling Chang), *Economics*, 2012-26 **[SSCI]**.
25. "Econophysics: Bridges over a Turbulent Current," (with Sai-Ping Li), *International Review of Financial Analysis*, 23:1-10, 2012. **[EconLit, FLI]**
26. "Market Fraction Hypothesis: A Proposed Test," (with Michael Kampouridis and Edward Tsang), *International Review of Financial Analysis*. 23: 41-54, 2012. **[EconLit, FLI]**
27. "Liquidity Cost of Market Orders in the Taiwan Stock Market: A Study based on an Order-Driven Agent-Based Artificial Stock Market," (with Yi-Ping Huang, Min-Chin Hung, and Tina Yu), *International Review of Financial Analysis*, 23:72-80, 2012. **[EconLit, FLI]**.
28. "[Agent-Based Economic Models and Econometrics](#)," (with C.-L Chang, and Y.-R. Du), *Knowledge Engineering Review*, 27(2): 187-219, 2012. **[SCI]**
29. "Varieties of Agents in Agent-Based Computational Economics: A Historical and an Interdisciplinary Perspective," *Journal of Economic Dynamics and Control*, 36(1):1-25, 2012 **[SSCI]**.

30. "Do the ASEAN Countries and Taiwan Form a Common Currency Area?" (with Jane Binner, Ke-Hung Lai, James L. Swofford, and Andrew Mullineux), *Journal of International Money and Finance*, 30(7): 1429-1435, 2011 [SSCI, FLI].
31. "Emergent Complexity in Agent-Based Computational Economics," (with Shu G Wang), *Journal of Economic Surveys*, 25(3): 527-546. 2011. [SSCI]
32. "Agents Learned, but Do We? Knowledge Discovery Using the Agent-Based Double Auction Markets," (with Tina Yu), *Frontiers of Electrical and Electronic Engineering (FEE) in China*, 6(1): 159-170. 2011
33. "Reinforcement Learning in Experimental Asset Markets," (with Yi-Lin Hsieh), *Eastern Economic Journal*, 37(1):109 – 133. 2011 [EconLit]
34. "On the Elasticity Puzzle: Would the Agent-Based Modeling Help?" (with Shu G Wang) *Advances and Applications in Statistical Sciences*, 2(2): 375-391, 2010.
35. "Corporate Governance and Equity Evaluation: Nonlinear Modeling via Neural Networks," (with H.-S Kao and J.-Z Lee), *International Research Journal of Finance and Economics*, 41: 68-92. 2010. [EconLit]
36. "Emergence of Scale-Free Networks in Markets," (with J.-J Tseng, S.-P. Li, and S.-C. Wang), *Advances in Complex Systems*, Vol 12, No. 1, pp. 87-97, 2009. [SSCI, SCI]
37. "Price Errors from Thin Markets and Their Corrections: Studies Based on Taiwan's Political Futures Markets," (with W.-S Wu), *Advances in Econometrics*, Vol. 24, pp. 1-25, 2009. [SSCI]
38. "Statistical Properties of an Experimental Political Futures Markets," (with S.-C. Wang, S.-P. Li, and C.-C Tai), *Quantitative Finance*, Vol. 9, No. 1, 2009, 9-16 [SSCI]
39. "The Future of Agent-Based Research in Economics," (with J. Barr, T. Tassier, L. Ussher, B. LeBaron, S. Sunder), *Eastern Economic Journal*, 34(4): 550-565, 2008. [EconLit]
40. "Network Topology of an Experimental Futures Exchange," (with S.-C. Wang, J.-J. Tseng, C.-C. Tai, K.-H. Lai, W.-S. Wu and S.-P. Li), *European Physics Journal B*, 62:105-111, 2008. [SCI]
41. "Software-Agent Designs in Economics: An Interdisciplinary Framework," *IEEE Computational Intelligence Magazine*, 3(4): 18-22, 2008. [SCIE]
42. "Risk Preference, Forecasting Accuracy and Survival Dynamics: Simulations Based on a Multi-Asset Agent-Based Artificial Stock Market", (with Y.-C. Huang), *Journal of Economic Behavior and Organization*, 67(3): 702-717, 2008. [SSCI]
43. "Genetic Programming: An Emerging Engineering Tool," (with Bob McKay and Xuan Hoai Nguyen), *International Journal of Knowledge-based Intelligent Engineering System*, 12(1): 1-2, 2008.
44. "On the Plausibility of Sunspot Equilibria: Simulations Based on Agent-Based Artificial Stock Markets," (with C.-C. Liao and P.-J. Chou), *Journal of Economic Interaction and Coordination*, Vol. 3, No. 1, pp 25-41, 2008. [EconLit]
45. "Lottery Markets Design, Micro-Structure, and Macro-Behavior: An ACE Approach," (with B.-C. Chie), *Journal of Economic Behavior and Organization*, 67(2): 463-480, 2008 . [SSCI]
46. "以決策樹之迴歸樹建構住宅價格模型 - 台灣地區之實證分析," (與郭子文, 裘厥庸聯合發表), *住宅學報*, Vol. 16, No. 1, pp. 1-20, 2007. [TSSCI]
47. "Relative Risk Aversion and Wealth Dynamics," (with Y.-C. Huang), *Information Sciences*, Vol. 177, Issue 5, pp. 1222-1229, 2007. [SCI]
48. "Computationally Intelligent Agents in Economics and Finance," *Information Sciences*, Vol. 177, Issue 5, pp. 1153-1168, 2007. [SCI]
49. "Graphs, Networks and ACE," *New Mathematics and Natural Computation*, Vol. 2, No. 3, pp. 299-314, 2006.
50. "Prediction of Bird Flu A(H5N1) Outbreaks in Taiwan by Online Auction: Experimental Results," (with S.-C. Wang, J.-J. Tseng, S.-P. Li), *New Mathematics and Natural Computation*, Vol. 2, No. 3, pp. 271-280, 2006.
51. "On the Selection of Adaptive Algorithms in ABM: A Computational Equivalence Approach," (with C.-C. Tai), *Computational Economics*, Vol. 28, No. 1, pp. 51-69, 2006. [SSCI]

52. [“自動化創新管理：演化計算方法的應用 \(Automatic Management of Innovation: The Application of Evolutionary Computation Method,”](#) ( with B.-T. Chie), *Journal of Technology Management*, Vol. 11, No. 2, 2006, pp 97-126.
53. [“廠商創新與仿冒行為的演化--代理人基模型模擬與分析,”](#) (與張嘉玲聯合發表), *經濟與管理論叢*, Vol. 1, No. 2, 2005, pp. 143-162. **[EconLit]**
54. ["Computational Intelligence in Economics and Finance: Carrying on the Legacy of Herbert Simon,"](#) *Information Sciences*, Vol. 170, 2005, pp. 121-131. **[SCI]**
55. ["Agent-Based Computational Modeling of the Stock Price-Volume Relation,"](#) (with C.-C. Liao), *Information Sciences*, Vol. 170, 2005, pp. 75-100. **[SCI]**
56. ["Special Issue on Computational Intelligence in Economics and Finance."](#) (With P. Wang). *Information Sciences*, Vol. 170, No. 1, 2005, pp.1-2. **[SCI]**
57. ["Trends in Agent-Based Computational Modeling of Macroeconomics,"](#) *New Generation Computation*, Vol. 23, No. 1, 2005, pp. 1-11. **[SCI]**
58. "Behavior Finance and Agent-Based Computational Finance: Toward an Integrating Framework," (with C.-C. Liao), *Journal of Management and Economics*, Vol. 8, No. 8. 2004.
59. ["A Genetic Programming Approach to Model International Short-Term Capital Flow,"](#) (with T. Yu and T.-W. Kuo), *Advances in Econometrics*, Vol. 17, 2004, pp. 45-70. **[SSCI]**
60. ["Statistical Analysis of Genetic Algorithms in Discovering Technical Trading Strategies,"](#) (with C.-Y. Tsao), *Advances in Econometrics*, Vol. 17. 2004, pp. 1-43. **[SSCI]**
61. ["Functional Modularity in the Fundamentals of Economic Theory : Toward an Agent-Based Economic Modeling of the Evolution of Technology,"](#) (with B.-T. Chie), *International Journal of Modern Physics B*, Vol. 18, No. 17-19, 2004, pp. 2376-2386.
62. ["Financial Innovation and Divisia Money in Taiwan: Comparative Evidence from Neural Network and Vector Error Correction Forecasting Models,"](#)(with J. Binner, A. Gazely and B.-T. Chie), *Journal of Contemporary Economic Policy*, Vol. 22, No. 2, 2004, pp. 213-224. **[SSCI]**
63. ["Trading Restrictions, Price Dynamics and Allocative Efficiency in Double Auction Markets: Analysis Based on Agent-Based Modeling and Simulations,"](#) (with C.-C. Tai), *Advances in Complex Systems*, Vol. 6, No. 3, 2003. pp. 283-302. **[SCIE]**
64. ["Agent-Based Artificial Markets in the AI-ECON Research Center: A Retrospect from 1995 to the Present,"](#) in *Systems, Control and Information*, Vol. 46, No. 9, 2002. pp. 23-30.
65. ["Financial Innovation and Divisia Monetary Indices in Taiwan: A Neural Network Approach,"](#) (with J. Binner and A. Gazely), *European Journal of Finance*, Vol. 8, pp. 238-247, 2002.
66. ["On the Emergent Properties of Artificial Stock Markets,"](#) (with C.-H. Yeh), *Journal of Economic Behavior and Organization*, Vol. 49, pp. 217-239, 2002. **[SSCI]**
67. ["Equilibrium Selection via Adaptation Using Genetic Programming to Model Learning in a Coordination Game,"](#) (with J. Duffy and C.-H. Yeh), *Electronic Journal of Evolutionary Modeling and Economic Dynamics*, Vol. 1, No. 1. 2002.
68. ["Market Diversity and Market Efficiency: The Approach Based on Genetic Programming,"](#) (with C.-H. Yeh), *Journal of Artificial Simulation of Adaptive Behavior (AISB Journal)* , Vol. 1, No. 1. 2002.
69. ["Toward an Integration of Social Learning and Individual Learning in Agent-Based Computational Stock Markets: The Approach Based on Population Genetic Programming,"](#) (with C.-H. Yeh), *Journal of Management and Economics*, Vol. 5, No. 5. 2001.
70. ["Testing for Non-Linear Structure in an Artificial Financial Market,"](#)(with T. Lux and M. Marchesi), *Journal of Economic Behavior and Organization*, Vol. 46, No. 3, pp. 327--342. 2001. **[SSCI]**
71. ["Evolving Traders and the Business School with Genetic Programming: A New Architecture of the Agent-Based Artificial Stock Market,"](#) (with C.-H. Yeh), *Journal of Economic Dynamics and Control*, Vol. 25, pp.363-393. 2001.

## [SSCI]

72. "[Simulating Economic Transition Processes by Genetic Programming.](#)" (with C.-H.Yeh), *Annals of Operation Research*, Vol.97, pp.265-286.2000.
73. "[Simulating the Ecology of Oligopoly Games with Genetic Algorithms.](#)" (with C.-C.Ni), *Knowledge and Information Systems: An International Journal*, 2000 (2),pp.310-339.2000. [SCIE]
74. "[Hedging Derivative Securities with Genetic Programming.](#)" (with W.-C.Lee and C.-H.Yeh), *International Journal of Intelligent Systems in Accounting, Finance and Management*, Vol.4,No.8, pp.237-251.1999.
75. "[Modeling the Expectations of Inflation in the OLG Model with Genetic Programming.](#)" (with C.-H.Yeh) *Soft Computing*, Vol.3, No.2 pp.53-62.1999. [SCIE]
76. "[Estimating the Complexity Function of Financial Time Series: An Estimation Based on Predictive Stochastic Complexity.](#)" (with C.-W.Tan), *Journal of Management and Economics*, Vol.3 1999.
77. "Rethinking the Appeal of Evolution: Empirical Evidences from the Financial Applications of Genetic Algorithms." (with W.-Y. Lin), *Beijing Mathematics* 1998, Vol.4, N0.2, pp.161-175.
78. "[Modeling Volatility with Genetic Programming: A First Report.](#)" *Neural Network World*, Vol.8 No.2, 1998,pp.181-190.
79. "適應性學習與均衡篩選: 遺傳規畫在整合性賽局的應用(葉佳炫聯合發表), 國立政治大學學報, 第七十五期, 49-74 頁。
80. "[Understanding the Nature of Predatory Pricing in Large-Scale Market Economy with Genetic Algorithms.](#)" (With C.-C. Ni and S. Feng), *Journal of Systems Engineering and Electronics*, Vol. 8, No. 2, 1997, pp. 33-44.
81. "遺傳規畫與科技預測" (與葉佳炫聯合發表), 國立編譯館館刊第二十五卷第一期, 民國八十五年六月, 349-372 頁。
82. "[Toward a Computable Approach to the Efficient Market Hypothesis: An Application of Genetic Programming.](#)" *Journal of Economic Dynamics and Control*, (with C.-H. Yeh), 21, 1997. pp.1043-1063. [SSCI]
83. "Information Transmission, Market Efficiency and the Evolution of Information-Processing Technology,"(with C.-H. Yeh), *Journal of Technology Management*, Vol.1 No.1, 1996, .pp.23-41.
84. "[Elements of Information Theory: A Book Review](#)", *Journal of Economic Dynamics and Control*, 1996, Vol.20, No.5, pp.819-824. [SSCI]
85. "[空屋率的模型選擇及其穩定性: 遺傳規畫的應用](#)", (與林祖嘉、葉佳炫聯合發表), 中華民國住宅學報第三期, 1995, 73-98 頁。

## PUBLICATIONS: Referred Chapters in Books [Top](#)

1. "Computational Behavioral Economics," (with Ying-Fang Kao and Ragupathy Venkatachalam), in: Roger Frantz, Shu-Heng Chen, Kurt Dopher, Floris Heukelom and Shabnam Mousavi (eds.), *Routledge Handbook of Behavioral Economics*, Routledge, Chapter 21, pp. 297-319, forthcoming.
2. "Smart Societies," (with Bin-Tzong Chie and Chung-Ching Tai), in: Roger Frantz, Shu-Heng Chen, Kurt Dopher, Floris Heukelom and Shabnam Mousavi (eds.), *Routledge Handbook of Behavioral Economics*, Routledge. Chapter 18, pp. 250-285, forthcoming.
3. "The Missing Legacy of Herbert Simon in Agent-Based Computational Economics," in Edgardo Bucciarelli, Marcello Silvestri, and Sara Rodriguez (eds.), *Decision Economics, In Commemoration of the Birth Centennial of Herbert A. Simon 1916-2016 (Nobel Prize in Economics 1978)*, Springer International Publishing. 2016. pp. 1-7.
4. "Herbert Simon and Agent-Based Computational Economics," in: Roger Frantz & Leslie Marsh (eds.), *Minds, Models and Milieux: Commemorating the Centenary of Herbert Simon's Birth*. Palgrave Macmillan. 2016. pp. 113-144.
5. "Trust, Growth, and Inequality: An Agent-Based Model," (with Bin-Tzong Chie), in: Yutaka Nakai, Yuhsuke Koyama, and Takao Terano (eds.), *Agent-Based Approaches in Economic and Social Complex Systems VIII: Post-Proceedings of The AESCS International Workshop 2013*, Springer. 2015. pp. 115-128.
6. Spatial Modeling of Agent-based Prediction Markets: Role of Individuals," (with Bin-Tzong Chie), in: Francisco



- Grimaldo Moreno and Emma Norling (eds.), *Multi-Agent-Based Simulation XV, Lecture Notes in Artificial Intelligence (LNAI), Volume (NA)*, Springer, 2015, pp. 197-212.
7. "Granularity in Economic Decision Making: An Interdisciplinary Review," (with Ye-Rong Du), in: Witold Pedrycz and Shyi-Ming Chen (eds.), *Granular Computing and Decision-Making: Interactive and Iterative Approaches*. Springer, 2015, pp. 47-71.
  8. "Behavioral Macroeconomics and Agent-Based Macroeconomics," (with Umberto Gostoli), in Sigeru Omatu, Hugues Bersini, Juan Corchado, Sara Rodriguez, Pawel Pawlewski, and Edgardo Bucciarelli (eds.) *Distributed Computing and Artificial Intelligence, 11<sup>th</sup> Conference. Advances in Intelligent Systems and Computing*, Vol 290, Springer, 2014, pp. 47-54.
  9. "Reasoning-Based Artificial Agents in Agent-Based Computational Economics," in Kazumi Nakamatsu and Lakhmi Jain (eds.), *Handbook on Reasoning-based Intelligent Systems*, World Scientific, 2013, pp. 575-602.
  10. "Agent-Based Modeling of the El Farol Bar Problem," (with Umberto Gostoli), in Alma Lilia García Almanza, Serafin Martinez-Jaramillo, Biliana Alexandrova-Kabadjova, and Edward Tsang (eds.) *Simulation in Computational Finance and Economics: Tools and Emerging Applications*, IGI Global, 2012, pp. 359-377.
  11. "Can Artificial Traders Learn and Err Like Human Traders? A New Direction for Computational Intelligence in Behavioral Finance," (with Kuo-Chuan Shih and Chung-Ching Tai), in Michael Doumpos, Constantin Zopounidis, and Panos M. Pardalos (eds.), *Financial Decision Making Using Computational Intelligence, Springer Series on Optimization and Its Applications, Vol. 70*, Springer, 2012, pp. 31-65.
  12. "Emergent Complexity in Agent-Based Computational Economics," (with Shu G. Wang), in Stefano Zambelli and Donald George (eds.), *Nonlinearity, Complexity and Randomness in Economics: Toward Algorithmic Foundations for Economics*, Wiley-Blackwell, 2012, pp. 131--150.
  13. "The Market Fraction Hypothesis under Different GP Algorithms," (with Michael Kampouridis and Edward Tsang), in Alexander Yap (ed.), *Information Systems for Global Financial Markets: Emerging Developments and Effects*, IGI Global, 2012, Chapter 3, pp. 37—54.
  14. "Agent-Based Modeling of the Prediction Markets for Political Elections," (with Tongkui Yu), in D. Villatoro, J. Sabater-Mir, and J.S. Sichman (Eds.): *Multi-Agent-Based Simulation XII, Lecture Notes in Artificial Intelligence (LNAI), Volume 7124*, Springer, 2012, pp. 31--43.
  15. "Market Microstructure: A Self-Organizing Map Approach to Investigate Behavior Dynamics under an Evolutionary Environment," (with Michael Kampouridis and Edward Tsang), in A. Brabazon and M. O'Neill (eds.), *Natural Computing in Computational Finance, Volume 4, Studies in Computational Intelligence*, Volume 380, Springer, 2011, Chapter 10, pp. 181—197.
  16. "An Order-Driven Agent-Based Artificial Stock Market to Analyze Liquidity Costs of Market Orders in the Taiwan Stock Market," (with Yi-Ping Huang, Min-Chin Hung, and Tina Yu), in A. Brabazon and M. O'Neill (eds.), *Natural Computing in Computational Finance, Volume 4, Studies in Computational Intelligence*, Volume 380, Springer, 2011, Chapter 9, pp. 163-179.
  17. "Is Genetic Programming ``Human-Competitive'? The Case of Experimental Double Auction Markets," (with Kuo-Chuan Shih), In: H. Yin, W. Wang, V. Rayward-Smith (eds.), *Intelligent Data Engineering and Automated Learning-IDEAL 2011, Lecture Notes in Computer Science*, Volume 6936, Springer, 2011, pp. 116-126.
  18. "Market Microstructure: Can Dinosaurs Return? A Self-Organizing Map Approach under an Evolutionary Framework," (with Michael Kampouridis and Edward Tsang), in Di Chio C, Brabazon A, Di Caro G, Drechsler R, Farooq M, Grahl J, Greenfield G, Prins C, Romero J, Squillero G, Tarantino E, Tettamanzi A, Urquhart N, Sima Uyar A (eds.), *Applications of Evolutionary Computation, Lecture Note in Computer Science* Volume 6625, Springer, 2011, pp. 91-100.
  19. "Prediction Markets: A Study on the Taiwan Experience," (with C.-Y. Tung, C.-C. Tai, B.-T. Chie, T.-C. Chou, and S. G. Wang), in Leighton Vaughan Williams (ed.), *Prediction Markets: Theory and Applications*, Routledge, 2011. Chapter

- 11, pp. 137-156.
20. "A Culture-Sensitive Agent in Kirman's Ant Model," (with Wen-Ching Liou and Ting-Yu Chen), in John Salerno, Shanchieh Jay Yang, Dana Nau, and Sun-Ki Chai (eds), *Social Computing, Behavioral-Cultural Modeling and Prediction*, **Lecture Notes in Computer Science (LNCS)**, Vol 6589, Springer, 2011, pp. 341-348.
  21. "Microstructure Dynamics and Agent-Based Financial Markets," (with Michael Kampouridis and Edward Tsang), in T. Bosse, A. Geller, and C.M. Jonker (Eds.): *Multi-Agent-Based Simulation XI*, **Lecture Notes in Artificial Intelligence (LNAI)**, Vol. 6532, Springer, 2011, pp. 121--135.
  22. "Neuroeconomics: A Viewpoint from Agent-Based Computational Economics," (with S G Wang), in Shu-Heng Chen, Yasushi Kambayashi and Hiroshi Sato (eds.) *Multi-Agent Applications with Evolutionary Computation and Biologically Inspired Technologies: Intelligent Techniques for Ubiquity and Optimization*, IGI Global, 2011. Chapter 3, pp. 35-49.
  23. "Bounded Rationality and Market Micro-Behaviors: Case Studies Based on Agent-Based Double Auction Markets," (with R.-J. Zeng, T. Yu and S G Wang), in Shu-Heng Chen, Yasushi Kambayashi and Hiroshi Sato (eds.) *Multi-Agent Applications with Evolutionary Computation and Biologically Inspired Technologies: Intelligent Techniques for Ubiquity and Optimization*, IGI Global, 2011. Chapter 5, pp. 78-94.
  24. "Social Simulation with Both Human Agents and Software Agents: An Investigation into the Impact of Cognitive Capacity to Their Learning Behavior," (with C.-C. Tai, T.-D. Wang and S G Wang), in Shu-Heng Chen, Yasushi Kambayashi and Hiroshi Sato (eds.) *Multi-Agent Applications with Evolutionary Computation and Biologically Inspired Technologies: Intelligent Techniques for Ubiquity and Optimization*, IGI Global, 2011. Chapter 6, pp. 95-117.
  25. "A Bibliometric Study of Agent Based Modeling Literature on SSCI Database," (with Yu-Hsiang Yang and Wen-Jen Yu), in Shu-Heng Chen, Takao Terano and Ryuichi Yamamoto (eds.), *Agent-Based Approaches in Economic and Social Complex Systems VIII, Agent-Based Social Systems*, Volume 8, Springer, 2011, Part VI, 189-198.
  26. "Social Interactions and Innovation: Simulation Based on an Agent-Based Modular Economy," (with Bin-Tzong Chie), in Marco LiCalzi, Lucia Milone and Paolo Pellizzari (eds.), *Progress in Artificial Economics: Computational and Agent-Based Models*, **Lecture Notes in Economics and Mathematical Systems**, Vol. 645, Springer, 2010, pp. 127-138.
  27. "Testing the Dinosaur Hypothesis under Empirical Datasets," (with Michael Kampouridis and Edward Tsang), in Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günter Rudolph (eds.): *Parallel Problem Solving from Nature, PPSN XI, Part II*, **Lecture Notes in Computer Science (LNCS)**, Vol. 6239, Springer, 2010, pp. 199--208.
  28. "Does Cognitive Capacity Matter when Learning Using Genetic Programming in Double Auction Markets?" (with C.-C. Tai and Shu G Wang), in G Di Tosto and H Van Dyke Parunak (eds), *Multi-Agent-Based Simulation X*, **Lecture Notes in Artificial Intelligence (LNAI)**, Vol. 5683, Springer, 2010, pp. 37-48.
  29. "Elasticity puzzle: An inquiry into micro-macro relations," (with Ya-Chi Huang and Jen-Fu Wang), in Stefano Zambelli (ed.), *Computable, Constructive and Behavioural Economic Dynamics: Essays in Honour of Kumaraswamy (Vela) Velupillai*, Chapter 23, pp. 377-415, Routledge, 2010.
  30. "The Agent-Based Double Auction Markets: 15 Years On." (with C.-C. Tai), In K. Takadama, C. Cioffi-Revilla, and Guillaume Deffuant (eds), *Simulating Interacting Agents and Social Phenomena: The Second World Congress*, Springer, 2010, pp. 119-136.
  31. "[Collaborative Computational Intelligence in Economics](#)," in C.L. Mumford, and L.C. Jain (eds.), *Computational Intelligence: Collaboration, Fusion and Emergence*, **Intelligent Systems Reference Library**, Vol. 1, Chapter 8. Springer, 2009.
  32. "Modeling Social Heterogeneity with Genetic Programming in an Artificial Double Auction Market," (with C.-C. Tai), in Leonardo Vanneschi, Steven Gustafson, Alberto Moraglio, Ivanoe De Falco, and Marc Ebner (eds), *Genetic Programming: 12th European Conference*, **Lecture Note in Computer Science** Volume 5481, Springer, 2009, pp. 171-182.
  33. "Income Distribution and Lottery Expenditures in Taiwan: An Analysis Based on Agent-Based Simulation," (with Bin-Tzong Chie, Hui-Feng Fan, and Tina Yu), in A. Brabazon and M. O'Neill (eds.), *Natural Computing in Computational*

*Finance, Volume 2*, Chapter 10, pp. 207--223, Springer 2009.

34. "Financial Applications: Stock Markets," in B. Wang (ed.) *Wiley Encyclopedia of Computer Science and Engineering*, John Wiley & Sons, pp. 1227-1244, 2009.
35. "Co-Evolving Trading Strategies to Analyze Bounded Rationality in Double Auction Markets," (with Ren-Jie Zeng and Tina Yu), in R. Riolo, T. Soule, and B. Worzel (eds.), *Genetic Programming Theory and Practice VI*, Chapter 13, pp. 195--213, Springer, 2009.
36. "Scale-Free Network Emerged in the Markets: Human Traders versus Zero-Intelligence Traders", (with J.-J. Tseng S.-C. Wang and S.-P. Li), in T. Terano, H. Kita, S. Takahashi, and H. Deguchi (eds.), *Agent-Based Approaches in Economic and Social Complex Systems V, Agent-Based Social Systems*, Volume 6, pp. 245-254, Springer, 2008.
37. "Genetic Programming and Agent-Based Computational Economics: From Autonomous Agents to Product Innovation", in T. Terano, H. Kita, S. Takahashi, and H. Deguchi (eds.), *Agent-Based Approaches in Economic and Social Complex Systems V, Agent-Based Social Systems*, Volume 6, pp. 3-14, Springer, 2008.
38. "Computational Intelligence in Agent-Based Computational Economics," in J. Fulcher and L. C. Jain (eds.), *Computational Intelligence: A Compendium*, Studies in Computational Intelligence, Vol. 115, Chapter 13, 517--594, Springer, 2008
39. "On Predictability and Profitability: Would GP Induced Trading Rules be Sensitive to the Observed Entropy of Time Series?" (with Nicolas Navet), in A. Brabazon and M. O'Neill (eds.). *Natural Computing in Computational Economics and Finance*, Chapter 11, pp. 197-210, Springer, 2008. Springer.
40. "Genetic Programming and Financial Trading: How Much about "What we Know"? " (with T.-W. Kuo and K. -M. Hsu), in C. Zopounidis, M. Doumpos, and P. M. Pardalos (eds.), *Handbook of Financial Engineering*, pp. 99-154, Springer, 2008.
41. "Agent-Based Modeling of Lottery Markets: Policy-making from Bottom Up," (with Bin-Tzong Chie), in L. Dennard, K. Richardson, and G. Morcol (eds.), *Complexity and Policy Analysis: Tools and Concepts for Designing Robust Policies in a Complex World, Managing the Complex Volume 3*, Chapter 13, ISCE Publishing, 2008 .
42. "Modularity, Product Innovation, and Consumer Satisfaction: An Agent-Based Approach," (with Bin-Tzong Chie), forthcoming in H. Yin, P. Tino, E. Corchado, W. Byrne and X. Yao (eds.), *Intelligent Data Engineering and Automated Learning, Lecture Notes in Computer Science* . (LNCS 4881), pp. 1053-1062. Springer, 2007,
43. "Failure of Genetic Programming Induced Trading Strategies: Distinguishing between Efficient Markets and Inefficient Algorithms," (with Nicolas Navet), in Chen, S.-H., P. Wang and T.-W. Kuo (eds.), *Computational Intelligence in Economics and Finance, Vol. 2*, Springer, 2007, pp. 169—182.
44. "Trading Strategies Based on K-Means Clustering and Regression Model," (with Hongxing He, Jin Chen and Huidong Jin), in Chen, S.-H., P. Wang and T.-W. Kuo (eds.), *Computational Intelligence in Economics and Finance, Vol. 2*, pp. 123--134. Springer, 2007.
45. "Computational Intelligence in Economics and Finance: Shifting the Research Frontier," (with P. P. Wang and T.-W. Kuo), in Chen, S.-H., P. Wang and T.-W. Kuo (eds.), *Computational Intelligence in Economics and Finance*, Vol. 2, Springer, 2007, pp. 1--23.
46. "The Relationship between Relative Risk Aversion and Survivability, " (with Y. -C. Huang), in T. Terano, H. Kita, H. Deguchi, and K. Kijima. (eds), *Agent-Based Approaches in Economic and Social Complex Systems IV, Agent-Based Social Systems*, Volume 3, Springer, 2007, pp. 41-48.
47. "Pretests for Genetic-Programming Evolved Trading Programs: ``Zero-Intelligence" Strategies and Lottery Trading." (with Nicolas Navet), in King et al. (eds.), *Neural Information Processing, Part III, Lecture Notes in Computer Science*, Volume 4234, Springer, 2006, pp. 450-460. [\[SCIE\]](#)
48. "Network Topologies and Consumption Externalities," (with Li-Cheng Sun and Chih-Chien Wang), in T. Washio et al. (eds.): *New Frontiers in Artificial Intelligence, Lecture Notes in Artificial Intelligence 4012*, 2006, Springer, pp. 314—329 [\[SCIE\]](#)

49. "[A Functional Modularity Approach to Agent-based Modeling of the Evolution of Technology](#)," (with B.-T. Chie), *The Complex Networks of Economic Interactions*, **Lecture notes in economics and mathematical systems**, Springer Vol. 567, 2005, pp. 165-178. [\[SCIE\]](#)
50. "[On the Role of Risk Preference in Survivability](#)," (with Y.-C. Huang), in L. Wang, K. Chen, and Y. S. Ong (eds.), *Natural Computation*, **Lecture Notes in Computer Sciences** 3612, Springer, 2005, pp. 612-621. [\[SCIE\]](#)
51. "[Risk Preference and Survival Dynamics](#)," (with Y.-C. Huang), in T. Terano, H. Kita, T. Kaneda, K. Arai and H. Deguchi (eds.), *Agent-Based Simulation: From Modeling Methodologies to Real-World Applications*, Springer, 2005, pp. 135-143.
52. "[Discovering Financial Technical Trading Rules Using Genetic Programming with Lambda Abstraction](#)," (with T. Yu and T.-W. Kuo), in U. O'Reilly, T. Yu, R. Riolo, and B. Worzel (eds.), *Genetic Programming Theory and Practice II*, Springer, 2004, pp. 11-30.
53. "[Toward a New Principle of Agent Engineering in Multiagent Systems: Computational Equivalence](#)," (with C.-C. Tai), in K. Kurumatani, S.-H. Chen and A. Ohuchi (eds.), *Multi-Agent for Mass User Support*, **Lecture Notes in Artificial Intelligence** 3012, 2004, pp. 18-32. [\[SCIE\]](#)
54. "[Equilibrium Selection via Adaptation](#)," (with C.-H. Yeh), in A. Nowak and K. Sazjowski (ed.), *Advances in Dynamic Games: Applications to Economics, Finance, Optimization, and Stochastic Control*, **Annals of the International Society of Dynamic Games**, Vol. 7. Birkhauser, 2004, Chapter 30, pp. 555-581.
55. "Discovering Hidden Patterns with Genetic Programming," (with T.-W. Kuo), in S.-H. Chen and P. P. Wang (eds.), *Computational Intelligence in Economics and Finance*, Springer-Verlag. [\[SCIE\]](#)
56. "Are Efficient Market Really Efficient?: Can Financial Econometric Tools Convince Machine Learning People?" (with T.-W. Kuo), in S.-H. Chen and P. P. Wang (eds.), *Computational Intelligence in Economics and Finance*, Springer-Verlag. [\[SCIE\]](#)
57. "Searching Financial Patterns with Self-Organizing Maps," (with H. He), in S.-H. Chen and P. P. Wang (eds.), *Computational Intelligence in Economics and Finance*, Springer-Verlag, 2003, pp. 203-216. [\[SCIE\]](#)
58. "Computational Intelligence in Economics and Finance," (with P. P. Wang), in S.-H. Chen and P. P. Wang (eds.), *Computational Intelligence in Economics and Finance*, Springer-Verlag, 2003, pp. 3-55. [\[SCIE\]](#)
59. "[Agent-Based Computational Macro-economics: A Survey](#)," in T. Terano, H. Dehuchi, and K. Takadama (eds.), *Meeting the Challenge of Social Problems via Agent-Based Simulation*, Springer, 2003, pp. 141-170.
60. "Overfitting or Poor Learning: A Critique of Current Financial Applications of GP," (with T.-W. Kuo), in C. Ryan, T. Soule, M. Keijzer, E. Tsang, R. Poli, and E. Costa (eds.), *Genetic Programming*, **Lecture Notes in Computer Science** 2610, Springer, pp. 34-46. [\[SCIE\]](#)
61. "Individual Rationality as a Partial Impediment to Market Efficiency: Allocative Efficiency of Markets with Smart Traders," (with C.-C. Tai and B.-T. Chie), in S.-H. Chen (ed.), *Genetic Algorithms and Genetic Programming in Computational Finance*, Kluwer, 2002, pp. 357-377.
62. "Price Discovery in Agent-Based Computational Modeling of the Artificial Stock Market," (with C.-C. Liao), in S.-H. Chen (ed.), *Genetic Algorithms and Genetic Programming in Computational Finance*, Kluwer, 2002, pp. 335-356.
63. "Genetic Programming: A Tutorial with the Software Simple GP," (with T.-W. Kuo and Y.-P. Shieh), in S.-H. Chen (ed.), *Genetic Algorithms and Genetic Programming in Computational Finance*, Kluwer, 2002, pp. 55-77.
64. "Genetic Algorithms and Genetic Programming in Computational Finance: An Overview of the Book," in S.-H. Chen (ed.), *Genetic Algorithms and Genetic Programming in Computational Finance*, Kluwer, 2002, pp. 1-26.
65. "Evolutionary Computation in Economics and Finance: A Bibliography," (with T.-W. Kuo), in S.-H. Chen (ed.), *Evolutionary Computation in Economics and Finance*, Physica-Verlag, 2002, pp. 419-455.
66. "On AIE-ASM: Software to Simulate Artificial Stock Markets with Genetic Programming," (with C.-H. Yeh and C.-C. Liao), in S.-H. Chen (ed.), *Evolutionary Computation in Economics and Finance*, Physica-Verlag, 2002, pp. 107-122.
67. "Evolutionary Computation in Economics and Finance: An Overview of the Book," in S.-H. Chen (ed.), *Evolutionary*

*Computation in Economics and Finance*, Physica-Verlag, 2002, pp. 3-28.

68. "Taiwan's Macroeconomic Performance in the 1990s: An Overview," in B. Dickson, and C.-M. Chao (eds.), *Assessing the Lee Teng-hui Legacy in Taiwan's Politics*, M. E. Sharpe Press, 2002. pp. 91-107
69. "Fundamental Issues in the Use of Genetic Programming in Agent-Based Computational Economics," in A. Namatame and H. SATO (eds.), *Agent-based Approaches in Economic and Social Complex Systems*, IOS Press, 2001.
70. "On the Relevance of Genetic Programming in Evolutionary Economics," in K. Aruka(ed.), *Evolutionary Controversy in Economics towards a New Method in Preference of Trans Discipline*, Springer-Verlag, Tokyo, 2001, pp. 135-150.
71. "Toward an Agent-Based Computational Modeling of Bargaining Strategies in Double Auction Markets with Genetic Programming," in K.S.Leung,L.-W.Chan,and H.Meng (eds.), *Intelligent Data Engineering and Automated Learning-IDEAL 2000: Data Mining, Financial Engineering, and Intelligent Agents, Lecture Notes in Computer Sciences 1983*, Springer,2000,pp.517-531. [SCIE]
72. "Using Genetic Algorithms to Simulate the Evolution of an Oligopoly Game," (with C.-C. Ni), in B. McKay, X. Yao, C. S. Newton, J.-H. Kim, T. Furuhashi (Eds.), *Simulated Evolution and Learning, Lecture Notes in Artificial Intelligence 1585*, Springer, 1999. pp. 293-300. [SCIE]
73. "Toward an Effective Implementation of Genetic Algorithms in Financial Data Mining: Retraining plus Validating," (with C.-F. Chen, and C.-W. Tan), in L. Xu, L. W. Chan, I. King and A. Fu (eds.), *Intelligent Data Engineering and Learning: Perspectives on Financial Engineering and Data Mining*, Singapore: Springer-Verlag. 1998. pp.99-105.
74. "Can We Believe That Genetic Algorithms Would Help without Actually Seeing Them Work in Financial Data Mining?: Part II, Empirical Tests," (with C.-F. Chen), in L. Xu, L. W. Chan, I. King and A. Fu (eds.), *Intelligent Data Engineering and Learning: Perspectives on Financial Engineering and Data Mining*, Singapore: Springer-Verlag. 1998. pp.89-97.
75. "Can We Belive That Genetic Algorithms Would Help without Actually Seeing Them Work in Financial Data Mining?: Part I, The Foundations," in L. Xu, L. W. Chan, I. King and A. Fu (eds.), *Intelligent Data Engineering and Learning: Perspectives on Financial Engineering and Data Ming*, Singapore: Springer-Verlag. 1998. pp.81-87.
76. "Genetic Programming in the Overlapping Generations Model: An Illustration with Dynamics of the Inflation Rate," in V. W. Porto, N. Saravanan, D. Waagen and A. E. Eiben (eds.), *Evolutionary Programming VII, Lecture Notes in Computer Science*, Vol. 1447, Berlin:Springer-Verlag. 1998. pp. 829-838. [SCIE]
77. "Pricing Financial Derivatives with Genetic Programming," (with W.-C. Lee and C.-H. Yeh), in G. Li, W. Tang, M. Chen and D. Cui (eds.), *Systems Science and Its Applications*, Tianjin People's Publishing House, 1998. pp. 144-156.
78. "Evolutionary Artificial Neural Networks and Genetic Programming: A Comparative Study Based on Financial Data," (with C.-C. Ni) in G. D. Smith, N. C. Steele, and R. F. Albrecht (eds.), *Artificial Neural Networks and Genetic Algorithms*, Springer-Verlag Wien New York, 1998. pp. 397-400.
79. "Would and Should Government Lie about Economic Statistics: Understanding Opinion Formation Processes through Evolutionary Cellular Automata," in Conte, R., R. Hegselmann, and P. Terna (eds.), *Simulating Social Phenomena, Lecture Notes in Economics and Mathematical Systems 456*, Springer, 1997. pp. 471-490. [SCIE]
80. "Would and Should Government Lie about Economic Statistics: Simulation Based on Evolutionary Cellular Automata," in Yao, X. and J.-H. Kim (eds.), *Simulated Evolution and Learning, Lecture Notes in Artificial Intelligence 1285*, Springer, 1997. pp. 157-166. [SCIE]
81. "Modeling Speculators with Genetic Programming," (with C.-H. Yeh), in P. Angeline, R. G. Reynolds, J. R. McDonnell, and R. Eberhart (eds.), *Evolutionary Programming VI, Lecture Notes in Computer Science*, Vol. 1213, Berlin: Springer-Verlag. 1997. pp.137-147. [SCIE]
82. "Genetic Programming Learning in the Cobweb Model with Inventory," in M. Chen (ed.), *General Systems Studies and Applications*, Hust Press. 1997. (ISBN: 7-5609-1536-1), pp.78-90.
83. "Equilibrium Selection Using Genetic Programming,"(with J. Duffy and C.-H. Yeh), in S. Amari, L. Xu, L. Chan, I. King and K.Leung (eds.), *Progress in Neural Information Processing*,Vol. 2, Springer-Verlag, Singapore. 1996. pp.1341-

1346.

84. "Measuring Randomness by Rissanen's Stochastic Complexity: Applications to the Financial Data," (with C.-W.Tan) in D.L. Dowe K.B.Korb and J.J.Oliver (eds.), *ISIS: Information, Statistics and Induction in Science*, World Scientific, Singapore. 1996.pp.200-211.
85. "Genetic Programming in the Coordination Game with a Chaotic Best-Response Function," (with J.Duffy and C.-H.Yeh) in L. Fogel, P. Angeline and T Back (eds.), *Evolutionary Programming V*, MIT Press, pp.277-286.
86. "Genetic Programming Learning and the Cobweb Model," (with Yeh), in P.Angeline (ed.) *Advances in Genetic Programming*, Vol.2, Chap.22, MIT Press Cambridge, MA.1996.pp.443-466.
87. "Genetic Programming, Predictability and Stock Market Efficiency," in L.Vlacic, T.Nguyen, and D.Cecez-Kecmanovic (eds.), *Modelling and Control of National and Regional Economies 1995*, (ISBN 0-08-042376-0), Pergamon, Oxford, Great Britain, 1996. pp.283-288.
88. "From the Hayek Hypothesis to Animal Spirits: The Phase Transition based on Competitive Experimental Markets," (with J.Kuo and C.Lin), in D.Vaz and K.Velupillai (ed.), *Inflation, Institutions and Information: Essays in Honor of Axel Leijonhufvud*, Macmillan, 1996.pp.290-318.

## PUBLICATIONS: Referred Papers in Proceedings [Top](#)

1. "On the Complexity of the El Farol Bar Game," (with Umberto Gostoli), *Proceedings of the 2016 Spring Simulation Multi-Conference (SpringSin'16)*, Pasadena, April 3-6, 2016. pp. 727-734.
2. "Size Effects in Agent-Based Macroeconomic Models: An Initial Investigation," (with Ying-Fang Kao, Bin-Tzong Chie, Timo Meyer, and Ragupathy Venkatachalam), *The 9th International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'15)*, Ramada Bintang Bali Resort, Bali, Indonesia, September 9-11, 2015.
3. "Toward a Spatial Agent-Based Prediction Market: Would the Spatial Distribution of Information Matter?" (with Bin-Tzong Chie), *Proceedings of the 2014 Spring Simulation Multi-Conference (SpringSin'14)*, Tampa, April 13-16, 2014. pp. 62-67.
4. "Role of Price in Industrial Dynamics," (with Bin-Tzong Chie), in 2014 *IEEE Proceedings on Computational Intelligence for Financial Engineering (CIFER'2014)*, London, UK, March 27-28, 2014, pp. 298-302.
5. "Network-Based Trust Games: An Agent-Based Model," (with Tong Zhang), *The 5th International Workshop on Emergent Intelligence on Networked Agents (WEIN'13)*, Saint Paul, Minnesota, USA, May 6, 2013, pp. 60-73.
6. "An Agent-Based Skeleton of the Network-Based Trust Games," (with Tong Zhang), In Levent Yilmaz, Tuncer Ören, Yu Zhang, Gregory Madey, & Maarten Sierhuis (eds.), *2013 Spring Simulation Multi-Conference (SpringSim'13) Simulation Series: Vol. 45, No. 1. Proceedings of the Agent-Directed Simulation Symposium (ADS 2013)*, San Diego, April 7-10, 2013, pp. 1-6.
7. "Coordination in the El Farol Bar Problem The Role of Social Preferences and Social Networks," (with Umberto Gostoli), *WCCI 2012 IEEE World Congress on Computational Intelligence*, Brisbane, June 11-15, 2012.
8. "Agent-based Model of the Political Election Prediction Market," (with Tongkui Yu), in Jordi Sabater, Daniel Villatoro and Jaime Sichman (eds.), *Proceedings on Twelfth International Workshop on Multi-Agent-Based Simulation (MABS'2011)*, Taipei, Taiwan, May 2, 2011, pp. 117-128.
9. "Investigating the Effect of Different GP Algorithms on the Non-Stationary Behavior of Financial Markets," (with Michael Kampouridis and Edward Tsang), in 2011 *IEEE Proceedings on Computational Intelligence for Financial Engineering (CIFER'2011)*, Paris, France, April 11-15, 2011.
10. "Testing the Dinosaur Hypothesis Under Different GP Algorithms", in *Proceedings of the 10th Annual Workshop on UK Computational Intelligence (UKCI'2010) Workshop*, IEEE Xplore, University of Essex, UK, September 8-10, 2010.

11. "Microstructure Dynamics and Agent-Based Financial Markets," in Tibor Bosse, Armando Geller, Catholijn M. Jonker (eds.), *Proceedings on Eleventh International Workshop on Multi-Agent-Based Simulation (MABS'2010)*, Toronto, Canada, May 11, 2010, pp. 117-128.
12. "Analysis of Micro-Behavior and Bounded Rationality in Double Auction Markets Using Co-evolutionary GP," (with R.J Zeng and T. Yu). In *Proceedings of World Summit on Genetic and Evolutionary Computation (GEC'09)*, June 12–14, 2009, Shanghai, China, ACM.
13. "Modeling Intelligence of Learning Agents in an Artificial Double Auction Market." (with C.-C. Tai), in *2009 IEEE Proceedings on Computational Intelligence for Financial Engineering (CIFER'2009)*, Sheraton Music City Hotel, Nashville, Tennessee, USA, March 30 - April 2, 2009, pp. 36-41.
14. "Agent-based Simulation of Product Innovation: Modularity, Complexity and Diversity," (with B.-T. Chie), *Proceedings of the Agent 2007 Conference on Complex Interaction and Social Emergence (Agent 2007)*, Northwestern University, Evanston, Illinois, Nov. 15-17, 2007, pp. 295-305.
15. "Graph and Network Economics," (with C.-L. Chen), in *Proceedings of the 2005 International Conference on Neural Networks and Brain (ICNN&B'05)*, Beijing, China, Oct. 13-15, 2005, IEEE Press, pp. 1639-1645
16. "Agent-Based Modeling of Lottery Markets with the Expected Utility Paradigm," (with B.-T. Chie and C.-W. Lee), *Proceeding of IEEE Congress on Evolutionary Computation*, Vol. 1, September 2-5, 2005, Edinburgh, U.K., pp. 366-373.
17. "Network Topologies and Consumption Externality," (with L.-C. Sun), in *Proceedings of the First International Workshop on Agent Network Dynamics and Intelligence (ANDI'2005)*, Kitakyushu, Japan, June 13-14, 2005, pp. 91-101.
18. "Functional Modularity in the Test Bed of Economic Theory--Using Genetic Programming," (with B.-T. Chie), In R. Poli, et al. (eds.), *GECCO-2004: Proceedings of the Genetic and Evolutionary Computation Conference*, June 26-30, 2004, Seattle, Washington, USA.
19. "Risk Preference and Survival Dynamics," (with Y.-C. Hwang), in T. Terano, H. Kita, T. Kaneda and K. Arai (eds.), *Proceedings of the 3rd International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'04)*, May 27-29, 2004, Kyoto University, Kyoto, Japan, pp. 9-16.
20. "Behavioral Finance and Agent-Based Computational Finance: Toward an Integrating Framework," in K. Chen, S.-H. Chen, H.-D. Cheng, D. Chiu, S. Das, R. Duro, Z. Jiang, N. Kasabov, E. Kerre, H.-V. Leong, Q. Li, M. Lu, M. G. Romay, D. Ventura, P.-P. Wang, and J. Wu (eds.), *Proceedings of 7th Information Sciences (JCIS 2003)*, September 26-30, 2003, Cary, North Carolina, U.S.A., pp. 1235-1238.
21. "Agent-Based Modeling of Lottery Markets," (with B.-T. Chie), in K. Chen, S.-H. Chen, H.-D. Cheng, D. Chiu, S. Das, R. Duro, Z. Jiang, N. Kasabov, E. Kerre, H.-V. Leong, Q. Li, M. Lu, M. G. Romay, D. Ventura, P.-P. Wang, and J. Wu (eds.), *Proceedings of 7th Information Sciences (JCIS 2003)*, September 26-30, 2003, Cary, North Carolina, U.S.A., pp. 1227-1230.
22. "Modeling International Short-Term Capital Flow with Genetic Programming," (with T.-W. Kuo), in K. Chen, S.-H. Chen, H.-D. Cheng, D. Chiu, S. Das, R. Duro, Z. Jiang, N. Kasabov, E. Kerre, H.-V. Leong, Q. Li, M. Lu, M. G. Romay, D. Ventura, P.-P. Wang, and J. Wu (eds.), *Proceedings of 7th Information Sciences (JCIS 2003)*, September 26-30, 2003, Cary, North Carolina, U.S.A., pp. 1140-1144.
23. "A Preview of the Third International Workshop on Computational Intelligence in Economics and Finance," (with C.-C. Tai and X.Yao), in K. Chen, S.-H. Chen, H.-D. Cheng, D. Chiu, S. Das, R. Duro, Z. Jiang, N. Kasabov, E. Kerre, H.-V. Leong, Q. Li, M. Lu, M. G. Romay, D. Ventura, P.-P. Wang, and J. Wu (eds.), *Proceedings of 7th Information Sciences (JCIS 2003)*, September 26-30, 2003, Cary, North Carolina, U.S.A., pp. 985-987.
24. "Economic Models of Innovations: Why GP Can Be a Possible Way Out?" (with B.-T. Chie), *Computational Synthesis: From Basic Building Block to High Level Functionality*, Technical Report SS-03-02, AAAI Press, pp. 42-51.

25. "Trading Restrictions, Price Dynamics and Allocative Efficiency in Double Auction Markets: Analysis Based on Agent-Based Modeling and Simulations," (with C.-C. Tai and B.-T. Chie), in A. Namatame, D. Green, Y. Aruka, H. Sata (eds.), *Proceedings of the 6th International Conference on Complex Systems 2002: Complexity with Agent-Based Modeling*, Chuo University, Tokyo, Japan, September 9-11, 2002, pp. 169-176.
26. "Agent-Based Computational Macroeconomics: A Survey," *Proceedings of the Second International Workshop on Agent-based Approaches in Economic and Social Complex Systems ( AESCS'02)*, Institute of Socio-Information and Communication Studies, University of Tokyo, August 16, pp. 15-30, 2002.
27. "Why Are There Sunspots? An Analysis Based on Agent-Based Artificial Stock Markets," (with C.-C. Liao), in H. J. Caulfield, S.-H. Chen, H.-D. Cheng, R. Duro, V. Honavar, E. E. Kerre, M. Lu, M. G. Romay, T. K. Shih, D. Ventura, P. P. Wang, and Y. Yang (eds.), *Proceedings of 6th Information Sciences ( JCIS'02)*, March 8-13, 2002, Research Triangle Park, North Carolina, U.S.A., p. 1167.
28. "Individual Rationality as a Partial Impediment to Market Efficiency," (with C.-C. Tai and B.-T. Chie), in H. J. Caulfield, S.-H. Chen, H.-D. Cheng, R. Duro, V. Honavar, E. E. Kerre, M. Lu, M. G. Romay, T. K. Shih, D. Ventura, P. P. Wang, and Y. Yang (eds.), *Proceedings of 6th Information Sciences ( JCIS'02)*, March 8-13, 2002, Research Triangle Park, North Carolina, U.S.A., pp. 1163-1166.
29. "Sensitivity Analysis of Genetic Programming: A Case of Symbolic Regression," (with T.-W. K. and Y.-P. Shieh), in H. J. Caulfield, S.-H. Chen, H.-D. Cheng, R. Duro, V. Honavar, E. E. Kerre, M. Lu, M. G. Romay, T. K. Shih, D. Ventura, P. P. Wang, and Y. Yang (eds.), *Proceedings of 6th Information Sciences (JCIS'02)*, March 8-13, 2002, Research Triangle Park, North Carolina, U.S.A., pp. 1119-1122.
30. "Trading Strategies on Trial: A Comprehensive Review of 21 Practical Trading Strategies Over 56 Listed Stocks," (with T.-W. Kuo), in B. Verma, A. Namatame, X. Yao, H. Selvaraj, A. de Carvalho, A. Ohuchi (eds.), *Proceedings of Fourth International Conference on Computational Intelligence and Multimedia Applications ( ICCIMA 2001 )*, Yokusika City, Japan, Oct. 30 - Nov. 1, IEEE Computer Society Press, pp. 66-71.
31. "The Schema Analysis of Emergent Bargaining Strategies in Agent-Based Double Auction Markets," (with B.-T. Chie), in B. Verma, A. Namatame, X. Yao, H. Selvaraj, A. de Carvalho, A. Ohuchi (eds.) *Proceedings of Fourth International Conference on Computational Intelligence and Multimedia Applications ( ICCIMA 2001 )*, Yokusika City, Japan, Oct. 30 - Nov. 1, IEEE Computer Society Press. pp. 61-65.
32. "Evolving Bargaining Strategies with Genetic Programming: An Overview of AIE-DA Ver. 2, Part 2," (with B.-T. Chie and C.-C. Tai), in B. Verma, A. Ohuchi (eds.), *Proceedings of Fourth International Conference on Computational Intelligence and Multimedia Applications ( ICCIMA 2001 )*, Yokusika City, Japan, Oct. 30 - Nov. 1, IEEE Computer Society Press, pp. 55-60.
33. "Evolving Bargaining Strategies with Genetic Programming: An Overview of AIE-DA Ver. 2, Part 1," in B. Verma, A. Namatame, X. Yao, H. Selvaraj, A. de Carvalho, A. Ohuchi (eds.), *Proceedings of Fourth International Conference on Computational Intelligence and Multimedia Applications ( ICCIMA 2001 )*, Yokusika City, Japan, Oct. 30 - Nov. 1, IEEE Computer Society Press, pp. 48-54.
34. "Testing for Granger Causality in the Stock Price-Volume Relation: A Perspective from the Agent-Based Model of Stock Markets," in Z. Wang and W. Wang (eds.), *Proceedings of the IFAC Workshop on Computational in Economic, Financial and Engineering-Economic Systems*, Oct. 22-24, 2001, Tianjin, P.R. China, pp.464-469.
35. "Price Discovery in Agent-Based Computational Modeling of Artificial Stock Markets," (with C.-C. Liao), in Z. Wang and W. Tang (eds.), *Proceedings of the IFAC Workshop on Computational in Economic, Financial and Engineering-Economic Systems*, Oct. 22-24, 2001, Tianjin, P.R. China, pp. 456-463.
36. "Fundamental Issues in the Use of Genetic Programming in Agent-Based Computational Economics," in A. Namatame (ed.), *Proceedings of the First International Workshop on Agent-based Approaches in Economic and Social Complex Systems ( AESCS2001 )*, Matsue City, Shimane, Japan, May 21-22, 2001, pp. 175-185.
37. "Genetic Programming in the Agent-based Artificial Stock Market," (with C.-H. Yeh), in *Proceedings of the 1999*



*National Computer Symposium*, Vol. 2, pp.251-258. Tamkang University, Taipei, Dec. 20-21, 1999.

38. "連鎖店賽局的共演化不穩定性：遺傳演算法學習之應用", (與倪志琦合著), 台灣經濟學會年會論文集, 1999, pp 47-70.
39. "Testing for Granger Causality in the Stock Price-Volume Relation: A Perspective from the Agent-Based Model of Stock Markets," (with C.-H. Yeh and C.-C. Liao), in B. McKay, Y. Tsujimura, R. Sarker, A. Namatame, X. Yao, and M. Gen (eds.) *Proceedings of the Third Australia-Japan Joint Workshop on Intelligent and Evolutionary Systems*, Canberra, Australia, 23-25 November, 1999. pp. 8-15.
40. "Towards an Agent-Based Foundation of Financial Econometrics: An Approach Based on Genetic-Programming Artificial Markets," (with T.-W. Kuo) In Banzhaf, W., Daida, J., Eiben, A. E., Garzon, M. H., Honavar, V., Jakiela, M., & Smith, R. E. (eds.). *GECCO-99: Proceedings of the Genetic and Evolutionary Computation Conference*, July 13-17, 1999, Orlando, Florida USA. San Francisco, CA: Morgan Kaufmann. Vol. 2. (ISBN:1-55860-611-4) pp.966-973.
41. "Genetic Algorithms, Trading Strategies and Stochastic Processes: Some New Evidence from Monte Carlo Simulations," (with W.-Y. Lin and C.-I. Tsao) In Banzhaf, W., Daida, J., Eiben, A. E., Garzon, M. H., Honavar, V., Jakiela, M., & Smith, R. E. (eds.). *GECCO-99: Proceedings of the Genetic and Evolutionary Computation Conference*, July 13-17, 1999, Orlando, Florida USA. San Francisco, CA: Morgan Kaufmann. (ISBN: 1-55860-611-4) pp.114-121.
42. "Genetic Programming in the Agent-Based Artificial Stock Market," (with C.-H. Yeh), in *Proceedings of the 1999 Congress on Evolutionary Computation (CEC'99)*, Vol. 2, IEEE Press. (ISBN: 0-7803-5536-9) pp. 834-841.
43. "Would Evolutionary Computation Help in Designs of ANNs in Forecasting Exchange Rates?" (with C.-F. Lu), in *Proceedings of the 1999 Congress on Evolutionary Computation (CEC'99)*, Vol. 1, IEEE Press. (ISBN: 0-7803-5536-9) pp. 267-274.
44. "Using Genetic Algorithms to Simulate the Evolution of an Oligopoly Game," in *Proceedings of the Second Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'98)*, Canberra, ACT 2600, Australia, Nov. 24-27, 1998. Vol. 2. (ISBN: 0-7317-0502-5)
45. "Option Pricing with Genetic Programming," (with C.-H. Yeh and W.-C. Lee), in J. Koza, W. Banzhaf, K. Chellapilla, K. Deb, M. Dorigo, D. Foegl, M. Garson, D. Goldberg, H. Iba, and R. Riolo (eds.), *Proceedings of the Third Annual Genetic Programming Conference (GP'98)*, University of Wisconsin, Madison, Wisconsin, July 22-25, 1998. CA:Morgan Kaufmann Publishers, San Francisco (ISBN:1-55860-548-7). pp. 32-37.
46. "Two Ways to Improve Genetic Algorithms in Financial Data Mining: Sell Short with Recursive GAs," (with W.-Y. Lin), in *Proceedings of the Seventh International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU'98)*, (ISBN: 2-84254-013-3), Paris, France, July 6-10, 1998, Vol. 2, pp.1090-1097.
47. "Hedging Securities with Genetic Programming," (with W.-C. Lee, and C.-H. Yeh), in G. Nakhaeizadeh and E. Steurer (eds.) *ECML'98 Workshop Notes: Application of Machine Learning and Data Mining in Finance (ECML'98)*, Technische Universität Chemnitz, Germany, April 24, 1998. ISSN:0947-5125. pp. 140-151.
48. "The Appeal of Evolution: The Case of the RGA-Based Portfolios," (with W.-Y. Lin), in N. C. Debnath (ed.), *Proceedings of the ISCA 13th International Conference (CATA'98)*, Honolulu, Hawaii, U.S.A, March 25-27, 1998. ISBN:1-880843-23-4. pp.125-130.
49. "Examine the Randomness of Exchanges Rates: The Algorithm Based on Stochastic Complexity," (with C.-W. Tan) in T. Philip (ed.), *Proceedings of the 10th International Conference on Computer Applications in Industry and Engineering (CAINE'97)*, San Antonio, Texas, U.S.A., December 10-12, 1997. ISBN: 1-880843-22-6. pp. 160-163.
50. "Financial Data Mining with Adaptive Genetic Algorithms," (with W.-Y. Lin) in T. Philip (ed.), *Proceedings of the 10th International Conference on Computer Applications in Industry and Engineering (CAINE'97)*, San Antonio, Texas, December 10-12, 1997. ISBN: 1-880843-22-6. pp. 154-159.
51. "Energizing Economics Educaion with Computer Power (I): Core Courses," (with S. Wang) in T. Philip (ed.),

- Proceedings of the 10th International Conference on Computer Applications in Industry and Engineering (CAINE'97)*, San Antonio, Texas, December 10-12, 1997. ISBN: 1-880843-22-6. pp. 149-153.
52. "Computational Economics: The Growth of Computer Power in Economics," in T. Philip (ed.), *Proceedings of the 10th International Conference on Computer Applications in Industry and Engineering (CAINE'97)*, San Antonio, Texas, December 10-12, 1997. ISBN: 1-880843-22-6. pp. 144-148.
  53. "Option Pricing with Genetic Algorithms: Separating Out-of-the-Money from In-the-Money," in *Proceedings of the 1997 IEEE International Conference on Intelligent Processing Systems (ICIPS'97)*, October 28-31, 1997, Beijing, China. Vol. 1, IEEE Press (ISBN:7-80003-410-0/TP), pp. 110 - 115.
  54. "Modelling Structural Changes with Genetic Programming: An Outline," (with C.-H. Yeh), in A. Sydow (ed.) *Proceedings of 15th IMACS World Congress on Scientific Computation, Modelling and Applied Mathematics (IMACS'97)*, Berlin, August 24-29, 1997. Vol. 2: Numerical Mathematics, Wissenschaft & Technik Verlag (ISBN:3-89685-552-2). pp. 621-626.
  55. "貨幣數量學說的競爭性：遺傳規畫在知識發掘上的應用"(與葉佳炫聯合發表), 楊文山主編, 社會科學計量方法發展與應用, 中央研究院中山人文社會科學研究所專書(41), September, 1997, pp 211-262.
  56. "Estimating the Effective Tax Function with Genetic Algorithms," (with W.-C. Lee), in J. T. Alander (ed.), *Proceedings of the Third Nordic Workshop on Genetic Algorithms and their Applications (3NWGA)*, Helsinki, Finland, August 20-22, 1997. pp. 275-290.
  57. "Using Genetic Programming to Model Volatility in Financial Time Series: The Case of Nikkei 225 and S&P 500," (with C.-H. Yeh), in *Proceedings of the 4th JAFEE International Conference on Investments and Derivatives (JIC'97)*, Aoyoma Gakuin University, Tokyo, Japan, July 29-31, 1997. pp. 288-306.
  58. "On the Artificial Life of the General Economic System (I): The Role of Selection Pressure," in F. Hara and K. Yoshida (eds.), *Proceedings of International Symposium on System Life (ISSL'97)*, Tokyo, Japan. July 21-22. 1997. pp. 233-240.
  59. "Option Pricing with Genetic Algorithms: The Case of European- Style Options," (with W.-C. Lee), in T. Back (ed.), *Proceedings of the Seventh International Conference on Genetic Algorithms (ICGA'97)*, San Francisco, CA: Morgan Kaufmann Publishers (ISBN:1-55860-487-1), 1997. pp. 704-711.
  60. "Using Genetic Programming to Model Volatility in Financial Time Series," (with C.-H. Yeh ) in J. Koza, K. Deb, M. Dorigo, D. Foegl, M. Garson, H. Iba, and R. Riolo (eds.), *Genetic Programming 1997: Proceedings of the Second Annual Conference (GP'97)*, Stanford University, July 13-16, 1997. San Francisco, CA:Morgan Kaufmann Publishers, San Francisco (ISBN:1-55860- 483-9). pp. 58-63.
  61. "Trading Restrictions, Speculative Trades and Price Volatility: An Application of Genetic Programming," (with C.-H. Yeh), in *Proceedings of the 3rd International Mendel Conference on Genetic Algorithms, Optimization Problems, Fuzzy Logic, Neural Networks, Rough Sets (Mendel'97)*, Brno, Czech Republic. June 25-27, 1997. PC-DIR, Brno. (ISBN:80-214-0884-7) pp. 31-37.
  62. "Option Pricing with Genetic Algorithms: A First Report," in Chih-Chung Tan (ed.), *Proceedings of the Second Chinese Congress on Intelligent Control and Intelligent Automation (CWC ICIA'97)*, Xian, China, June 23-27, 1997. Xi'an Jiaotong University Press (ISBN: 7-5605-0922-3/Z.22). pp. 1682-1688.
  63. "Occam's Razor as an Emerging Property of ALIFE Economic Systems," *Proceedings of the VII the Conference of International Association for the Development of Interdisciplinary Research on Learning: From Natural Principle to Artificial Methods (AIDRI'97)*, University of Geneva, June 23-26, 1997. pp. 59-62.
  64. "Simulating Economic Transition Processes by Genetic Programming," (with C.-H. Yeh), in R. Kulikowski, Z. Nahorski, and J. W. Owsinski (eds.), *Proceedings of the International Conference on Transition to Advanced Market Institutions and Economies: Systems and Operations Research Challenges (Transition'97)*, Warsaw, June 18-21, 1997. System Research Institute and Polish Academy of Sciences. (ISBN: 83-85847-81-2). pp.87-93.
  65. "On the Cognitive System Which Can Detect and Adapt to Intrinsic Novelties," (with W.-Y. Lin), in J. Graham and D.-

- G. Shin (eds.), *Proceedings of the 6th ISCA International Conference on Intelligent Systems (ICIS'97)*, Boston, Massachusetts, U.S.A., June 11-13, 1997. ISCA. (ISBN: 1-880843-20-X). pp. 187-192.
66. "Option Pricing with Genetic Algorithms: A Second Report," (with W.-C. Lee), in the *1997 IEEE International Conference on Neural Networks Proceedings (ICNN'97)*, Westin Galleria Hotel, Houston, Texas, U.S.A., June 9-12, 1997. (ISBN: 0-7803-4122-8), pp. 21-25.
  67. "理性預期在蛛網模型中的形成過程：遺傳規畫在調適性多決策者系統中的應用"(與葉佳炫聯合發表), 1995年臺灣經濟學會年會論文集, 1995, pp 221-259.
  68. "Coevolutionary Instability in Games: An Analysis Based on Genetic Algorithms," (with C.-C. Ni), *Proceedings of 1997 IEEE International Conference on Evolutionary Computation (ICEC'97)*, Indianapolis, U.S.A., April 13-16. (ISBN: 0-7803-3949-5) pp.703-708.
  69. "Speculative Trades and Financial Regulations: Simulations Based on Genetic Programming," (with C.-H. Yeh), *Proceedings of the IEEE/IAFE 1997 Computational Intelligence for Financial Engineering (CIFER'97)*, New York City, U.S.A., March 24-25, 1997. IEEE Press, pp. 123-129.
  70. "Simulating Energy Policies via Computable General Equilibrium Models," (with S. Feng and T. Li), in Woodfill (ed.), *Proceedings of the ISCA 12th International Conference*, ISCA. (ISBN: 1-880843-19-6), pp.165-170.
  71. "Estimating the Effective Tax Functions with Genetic Algorithms," (with W.-C. Lee), in P. P. Wang (ed.), *Proceedings of Joint Conference of Information Sciences, Vol. 1: Fuzzy Logic, Intelligent Control and Genetic Algorithm, FEA'97*, Research Triangle Park, North Carolina, U.S.A. March 1-5, 1997 (ISBN: 09643456-4-1). pp. 81-84.
  72. "Genetic Programming Learning in the Cobweb Model with Speculators," (with C.-H. Yeh), In *International Computer Symposium (ICS'96) Proceedings: Proceedings of International Conference on Artificial Intelligence*, National Sun Yat-Sen University, Kaohsiung, Taiwan, R.O.C., Dec. 19-21, 1996. pp. 39-46.
  73. "Would and Should Government Lie about Economic Statistics: Simulations Based on Evolutionary Cellular Automata," in *Proceedings of the First Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'96)*, KAIST, Taejeon, Korea, Nov. 9-12, 1996. pp. 365-372.
  74. "Measuring Stock Market Efficiency by Rissanen's Predictive Stochastic Complexity," in N. S. Antonio and H. Steele (eds.), *Proceedings of The Second South China International Business Symposium: Managing International Business in the Twenty First Century*, Macau, Nov. 4-7, 1996. Volume 1, pp.159-172.
  75. "Understanding the Nature of Predatory Pricing in the Large- Scale Market Economy with Genetic Algorithms," (with C.-C. Ni), in *Proceedings of the 1996 IEEE International Symposium on Intelligent Control (ISIC'96)*, IEEE Control System Society, Dearbon, Michigan, U.S.A., September 15-18, 1996. IEEE Press (ISBN:0-7803-2978-3). pp.354-359.
  76. "Genetic Programming and the Efficient Market Hypothesis", in J. Koza, D. Goldberg, D. Fogel and R. Riolo (eds.), *Genetic Programming 1996: Proceedings of the First Annual Conference*, MIT Press, Cambridge, MA, 1996. pp. 45-53.
  77. "A Comparison of Forecast Accuracy between Genetic Programming and Other Forecastors: A Loss Differential Approach," (with C.-H. Yeh), in D. Borrajo and P. Isasi (eds.), *Proceedings of the First International Workshop on Machine Learning, Forecasting, and Optimization (MALFO'96)*, Madrid, Spain, July 10-12, 1996, Universidad Carlos III de Madrid Press (ISBN:84-89315-04-3), pp. 39-52.
  78. "Measuring Randomness by Rissanen's Stochastic Complexity: Applications to the Financial Data," (with C. Tan) *Proceedings of the Sixth International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU'96)*, (ISBN: 84-8254-079-3), Granada, Spain, July 1-5, 1996, Vol. 3, pp.1489-1494.
  79. "Genetic Algorithm Learning and the Chain-Store Game," (with C.-C. Ni), in *Proceedings of 1996 IEEE International Conference on Evolutionary Computation*, IEEE Press (ISBN: 0-7803-2902-3), Nagoya, Japan, May 20-22, 1996, pp.480-484.

80. "Bridging the Gap between Nonlinearity Tests and the Efficient Market Hypothesis by Genetic Programming", (with C. Yeh), in *Proceedings of the IEEE/IAFE 1996 Conference on Computational Intelligence for Financial Engineering*, IEEE Press (ISBN: 0-7803-3236-9), Crowne Plaza Manhattan, New York City, March 24-26, 1996, pp.34-39.
81. "Genetic Programming in Computable Financial Economics", (with C. Yeh), in *Proceedings of the ISCA 11th Conference: Computers and Their Applications*, ISCA Press (ISBN: 1-880843- 15-3), San Francisco, California, U.S.A., March 7-9, 1996, pp.135- 138.
82. "Genetic Programming in the Coordination Game with a Chaotic Best-Response Function", (with J. Duffy and C. Yeh), in P. Angeline, T. Back, and D. Fogel (eds.) *Evolutionary Programming: Preceeding of the Fifth Annual Conference on Evolutionary Programming*, MIT Press, Cambridge, MA, 1996. pp. 277-286.
83. "Can GA-based Technical Trading Rules Survive Well during the 1990-91 World-Wide Recession? Evaluation Based on the Crash of TAIEX and NIKKEI", (with C. Chen), in H. C. Steele and O. Yau (eds.) *Proceedings of International Conference on "Global Business in Transition: Prospects for the Twenty First Century"*, Vol. II, Center for International Business Studies (CIBS), Lingnan College, Hong Kong, Dec. 14-16, 1995. pp.591-598.
84. "自我實現預期、貝氏學習與經濟謊言：細胞互動模型的模擬分析", (與程永夏), 1994 臺灣經濟學會年會論文集, 1995, pp. 123-150.
85. "Uncertainty and PDP Market Efficiency: Strong and Weak Rationality in Double Auction Experimental Markets", (with J. Kuo and C. Lin), in H. Steele and N. S. Antonio (eds.) *First South China International Business Symposium on "Planning Developing Markets and Information Technology Support: Managing Business in the 1990's"*, Proceedings and Papers, Vol.1, Centre for International Business Studies, Lingnan College, 1994. pp.9-13.

## Invited Plenary and Keynote Speech [Top](#)

1. "Agent-Based Modeling as a Foundation of Big Data," *20th Annual Meeting of the Japan Association for Evolutionary Economics* (JAFEE'2016), University of Tokyo, Tokyo, Japan, March 26-27, 2016.
2. "Agent-Based Modeling as a Foundation of Big Data," *2015 Symposium on Agent-Based Computational Economics and Big Data*, National Supercomputing Center, Sun Yat-Sen University, Guangzhou, China, December 5-7, 2015.
3. "From Digital Humanities to Computational Humanities: A Framework Integrated with Computational Social Science," the *Sixth International Conference on Digital Archives and Digital Humanities: Focusing on East Asia (DA-DH'2015)*, Panel on "Large-Scale Humanistic Studies and Discoveries with Computing Facilitators", National Taiwan University, Taipei, Taiwan, November 30-December 2, 2015.
4. "The Use of Knowledge in the Digital Society," *Conference on Complex Systems (CSS 2015)*, Tempe, Arizona, USA, September 28 –October 2, 2015.
5. "Agent-Based Modeling as a Foundation of Big Data," *The 9th International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'15)*, Ramada Bintang Bali Resort, Bali, Indonesia, September 9-11, 2015.
6. "Trust, Network and Wealth: From Human-Subject Experiments to Agent-Based Modeling," *the 4th Asia-Pacific Econophysics Conference*, Nanyang Technological University, Singapore, July 13-15, 2015.
7. "On the Naturally Allied Spiral of Agent-based Computational Economics and Experimental Economics," *First Cross-Straits Symposium on Economic Frontier and Policy Simulation in China*, China Southern Normal University, Guangzhou, China, November 15-16, 2014.
8. "ACE and EE: A Review of Some Recent Progresses," the *5th World Congress on Social Simulation*, São Paulo, Brazil, November 4-7, 2014.

9. "Competition in a New Industrial Economy: Toward an Agent-Based Economic Model of Modularity," (with Bin-Tzong Chie), *11th International Conference of Socionetwork Strategies: Understanding Complex Society from Agent-Based Simulation*, Research Institute for Socionetwork Strategies, Kansai University, Osaka, Japan, Feb 27, 2014.
10. "Macroeconomic Modeling in the Post-Financial Crisis Era: Opportunities and Challenges for the Agent-Based Computational Economics," *Workshop on Computational Finance and Economics*, Mexican Central Bank, Mexico City, Mexico. October 17, 2012
11. "On the Market Origin of Agent-Based Simulation in Economics: KISS, YES! But, Where?" *The Fifth Edition of Epistemological Perspectives on Simulation (EPOS V)*, Trinity University, San Antonio, Texas, October 10-12, 2012.
12. "Social Networks and Macroeconomics," *3rd International Workshop on Managing Financial Instability in Capitalist Economies (MAFIN 2012)*, Genoa, Italy, September 19-21, 2012.
13. "Predicting the Prediction Market: Would Smart Agents Help?," *AI, The Fundamental Social Aggregation Challenge, and the Autonomy of Hybrid Agent Groups, AAAI, 2012 Spring Symposia*, Stanford University, March 26-28, 2012.
14. "Social Networks, Social Learning and Macroeconomic Dynamics: How Much Could Ernst Ising Help DSGE?" *Research in International Business and Finance Symposium*, University of Limerick, Limerick, Ireland, November 24, 2011.
15. "Catastrophes or Dangerous Dynamics in Agent-Based Modular Economy," *3rd International Conference on Econophysics and Summer School on Teaching and Enterprise*, Department of Physics and School of Science, Loughborough University, UK, September 24-29, 2011.
16. "On the Cognitive Capacity and Cognitive Heterogeneity of Artificial Agents: From Laboratory Games to Financial Markets," *International Conference on Nonlinear Economic Dynamics and Financial Market*, South China Normal University and Guangzhou University, Guangzhou, China, March 31-April 2, 2011.
17. "Toward an autonomous-agents inspired economic analysis," *First Workshop on Quantitative Finance and Economics*, International Christian University, Tokyo, Feb 21-23, 2011.
18. "Cognitive Financial Agents: From Generalized Reinforcement Learning to Genetic Programming," *Conference on Quantitative Behavioral Finance*, University of Nice Sophia Antipolis, Nice, France, December 8-10, 2010.
19. "Varieties of Agents in Agent-Based Computational Economics: A Historical and an Interdisciplinary Perspective," *50th Shuangqing Science Forum "The Computational and Experimental Methods in Management Science"*, National Natural Science Foundation of China and Tianjin University, Tianjin, China, November 23-25, 2010.
20. "Microstructure Dynamics and Agent-Based Financial Markets: Can Dinosaurs Return?" *The Second Edition of the International Workshop on Managing Financial Instability in Capitalist Economies (MAFIN 2010)*, Reykjavik University, Reykjavik, Iceland, September 23-25, 2010.
21. "Varieties of Agents in Agent-Based Computational Economics: A Historical and an Interdisciplinary Perspective," *The 16th International Conference on Computing in Economics and Finance (SCE'2010)*, City University London, London, UK, July 13-17, 2010.
22. "Origin of Agent-Based Computational Economics: Agent-Based Modeling of Economic Experiments," *International Conference on how and why economists and philosophers do experiments: dialogue between experimental economics and experimental philosophy (KEEL'2010)*, Kyoto Sangyo University, Kyoto, Japan, March 27-28, 2010.
23. "Agent-Based Computational Modeling in Economics: From the Origins to the Frontiers," *Facing Crisis: International Seminar on How to Develop Methods of Economic Research*, Beijing, China, September 10-11, 2009.

24. "Artificial Economic Agents with Heterogeneous Cognitive Capacity and Their Economic Consequences: Study Based on Agent-Based Double Auction Market Simulations," (with Tina Yu), *The 4<sup>th</sup> International Conference on Economic Science with Heterogeneous Agents (ESHIA'2009)*, Beijing Normal University, Beijing, China, June 18-20, 2009.
25. "Agent-based Simulation Models of Financial Markets," *The First Chinese Forum on Intelligent Finance*, Chinese Academy of Sciences, Beijing, China, Feb 26-28, 2009.
26. "Toward a Bottom-Up Risk Simulator: An Agent-Based Model of Lottery Tax Rates," 2008 *International Conference on Business Intelligence and Financial Engineering (BIFE'2008)*, Changsha University of Science & Technology, Changsha, China, October 28-30, 2008.
27. "Agent-Based Economic Model and Econometrics," *International Workshop on Nonlinear Economic Dynamics and Financial Market Modelling*, Peking University, Beijing, China, October 9-11, 2008.
28. "Agent-Based Economic Models and Econometrics," *Econophysics Colloquium 2008*, Kiel University, Kiel, Germany, August 28-30, 2008.
29. "Agent-Based Modelling in Economics and Finance," *A CIFREM Tutorial Workshop on Agent-Based Modelling in Economics and Finance*, Trento University, Trento, Italy, May 19-20, 2008.
30. "Agent-Based Computational Economics and Econometrics," *The 11th Asia-Pacific Workshop on Intelligent and Evolutionary Systems, (IES 2007)*, National Defense Academy, Yokosuka, Japan, November 30-December 2, 2007.
31. "Genetic Programming and Agent-Based Computational Economics," *The 5th International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'07)*, Waseda University, Tokyo, Japan, August 29-30, 2007.
32. "Economic Issues Presenting Challenges to Genetic Programming," *2007 Seoul BK Colloquium on Learning Complex Structures, (SCLCS 2007)*, Seoul National University, Seoul, Korea, August 22-25, 2007.
33. "On the Plausibility of Sunspot Equilibria: Simulations Based on Agent-Based Artificial Stock Markets," *The Second International Workshop on Intelligent Finance (IWIF-II)*, Chengdu, China, July 6--8, 2007.
34. "Trading with Genetic Programming: Evidence from Stock Markets and Foreign Exchange Markets," the plenary speech given at the *ICSC Congress on Computational Intelligence: Methods and Applications, (CIMA'05)*, Istanbul, Turkey, December 15-17, 2005.
35. "Evolving Economic Theory with Evolutionary Computation," the keynote speech given at the *2004 Conference on Intelligent Information Systems & the First Workshop on Evolutionary Computation Applications*, Aletheia University, Taipei, May 22, 2004.
36. "Agent-Based Computational Approach to Complex Adaptive Economic Systems," plenary speech given at the *First Cross-Strait Conference on Statistical Physics*, Yangzhou University, Yangzhou, China. August 27-31, 2003.
37. "Understanding Sunspots: An Analysis Based on Agent-Based Artificial Stock Markets," invited talk given at the *6th Taiwan International Symposium on Statistical Physics: Lattice Model and Complex System (StatPhys-Taiwan-2002)*, Academia Sinica, Taipei and National Chung Hsing University (Huei-Suen Farm), Taiwan, 26 May-1 June 2002.
38. "John Holland's Legacy in Economics," keynote speech to be given at *SECOND CeNDEF WORKSHOP on ECONOMIC DYNAMICS*, Center for Nonlinear Dynamics in Economics and Finance, Universiteit van Amsterdam, January 4-6, 2001.
39. "On the Relevance of Genetic Programming to Evolutionary Economics," plenary speech given at the *4th Annual Meeting of the Japan Association for Evolutionary Economics (JAFEE'2000)*, Surugadai Memorial Hall of Chuo University, Tokyo, Japan, March 25-26, 2000.
40. "Genetic Programming in Agent-Based Modeling of Artificial Stock Markets: Part 1," Open Lecture given in *Seminar on Computational Intelligence in Economics and Finance*, International Christian University, Tokyo,

Japan, March 24, 2000.

41. "Simulating the Artificial Stock Markets with Spirit of Keynes and the Neo-Classical," plenary speech given at the *Workshop on Expectational and Learning Dynamics in Financial Markets*, University of Technology, Sydney, December 13-14, 1999.
42. "Genetic Algorithms in Complex Adaptive Economic Systems: Successes and Failures," plenary speech to be given at the *First Asia-Pacific Workshop on Genetic Algorithms and Applications (APGA'98)*, Tsinghua University, Beijing, China. October 18-20, 1998.
43. "Genetic Programming Learning in the Cobweb Model with Inventory," (with C.-H. Yeh), plenary speech given at the IIGSS- CB The First Workshop on General Systems Methodology and Applications (**GSMA'96**), Huazhong University of Science and Technology, Wuhan, China, July 16-18, 1996.
44. "On the Cognitive Foundations of Economics: Evolution, Information, and Computation," paper presented at the *Symposium on the Development in Cognitive and Life Sciences in memory of Chao-Ting Chang*, Department of Philosophy, National Chung Cheng University, Chia-Yi, April 20-21, 1996.
45. "From the Hayek Hypothesis to Animal Spirits: The Phase Transition based on Competitive Experimental Markets", (with J. Kuo and C. Lin), paper presented at the conference "Inflation, Institutions and Information: Theories and History" held in Honor of Axel Leijonhufvud at the Central Bank of Uruguay, Montevideo, Uruguay, September 6-7 1993.

## Tutorial [Top](#)

1. "Agent-based Computational Economics and Finance," College of Management and Economics, Tianjin University, Tianjin, China, June 14-18, 2016.
2. "Agent-based Computational Economics and Finance," College of Management and Economics, Tianjin University, Tianjin, China, July 4-9, 2015.
3. "ACE and EE: A Review of Some Recent Progresses," *the Summer School of the 19th Annual Workshop on the Economic Science with Heterogeneous Interacting Agents (ESHIA 2013)*, Tianjin University, Tianjin, China, June 14, 2014
4. "Agent-based Computational Economics and Finance," College of Management and Economics, Tianjin University, Tianjin, China, June 9-13, 2014.
5. "Agent-based Computational Economics and Finance," College of Management and Economics, Tianjin University, Tianjin, China, Nov 26-30, 2012.
6. "Lecture Series on Agent-Based Computational Economics: A Historical and Interdisciplinary Review," School of Economics and Management, Harbin Institute of Technology, Harbin, China. Nov 7-9, 2011.
7. "Varieties of Agents in Agent-Based Computational Economics: From Calibrated Artificial Agents to Autonomous Agents," *Summer School on Intelligent Agents*, National Tsing-Hwa University, Hsinchu, Taiwan, June 28-July 1, 2010.
8. "Agent-Based Modeling in economics and econometrics", *APCTP (Asia Pacific Center for Theoretical Physics) School on Econophysics*, Pohang, Korea, August 24-27, 2009.
9. "Agent-Based Modeling in Finance: The Tradition of Human-Subject Experiments". *The Central European University (CEU) Summer School on Complex Systems and Social Simulations (CSS)*, Budapest, Hungary, July 23, 2009.
10. "Heterogeneous and Multi-Agent Modeling", *The 15th International Conference Computing in Economics and Finance, University of Technology, Sydney, Australia, July 13-17, 2009.*
11. "Agent-Based Computational Economics and Some of Its Recent Developments", 東吳學 95 年度教學卓越計畫計

算智慧在經濟與財務上的發展與應用研習會， March 24, 2007

12. "Discovering Hidden Financial Patterns with Genetic Programming," (with T. Yu and T.-W. Kuo), *The 2nd IASTED International Conference on Financial Engineering and Applications (FEA 2004)*, MIT, Cambridge, November 8-10, 2004.
13. "Teaching Econ I with Agent-Based Modeling," *The Fourth Workshop on Nonlinear Physics*, National Chung Hsing University, Taichung, Taiwan, Dec. 20-22, 2002.
14. "Genetic Programming in Economics and Finance,"(with C.-H. Yeh), *Congress on Evolutionary Computation (CEC'2001)*, COEX, Seoul, Korea, May 27-30, 2001.
15. "Genetic Programming in Economics and Finance," *Congress on Evolutionary Computation (CEC'2000)*, La Jolla, California, U.S.A, July 16-19, 2000.

## PUBLICATIONS: Conference Papers [Top](#)

1. "How Does Your Political Color "Dye" Your Social Expectation in Trust Games?" (with Yang-Teng Fan, Ray-May Hsung, Ho-Ling Liu, Ye-Rong Du, Tien-Tun Yang , Nai-Shing Yen, Chien-Te Wu), *1st Workshop on the Complex Dynamics of Financial Markets under Complex Information Environments (CIFMD 2016)*, Tianjin University, Tianjin, China, December 2-4, 2016.
2. "Agent-based Modeling of Chinese University Admission Mechanisms: From the Boston Mechanism to the Chinese Parallel Mechanism, Mission Accomplished?"(with Connie H. Wang), *INFORMS 2016 Annual Meeting*, Nashville, Tennessee, USA, November 12-17, 2016.
3. "Effects of Centralized Student Assignment Mechanisms on Educational Equality: An Agent-Based Model," (with Connie H. Wang and George R. Larkin), *The 2016 Duke Forest Conference: Economics in the Era of Natural Computationalism and Big Data*, Duke University, Durham, North Carolina, USA, November 11-13, 2016.
4. "Agent-Based Modeling as a Foundation of Big Data," (with Ragupathy Venkatachalam), *The 2016 Duke Forest Conference: Economics in the Era of Natural Computationalism and Big Data*, Duke University, Durham, North Carolina, USA, November 11-13, 2016.
5. "How Does Your Political Color "Dye" Your Social Expectation in Trust Games?" (with Yang-Teng Fan, Ray-May Hsung, Ho-Ling Liu, Ye-Rong Du, Tien-Tun Yang , Nai-Shing Yen, Chien-Te Wu), *82th International Atlantic Economic Conference (IAEC 2016)*, Washington D. C., USA, October 13 -16, 2016.
6. "Effects of Centralized Student Assignment Mechanisms on Educational Equality: An Agent-Based Model," (with Connie Wang) , *82th International Atlantic Economic Conference (IAEC 2016)*, Washington D. C., USA, October 13 -16, 2016
7. "Chinese University Admission Mechanisms: Should We Defer Deferred Acceptance?" (with Connie Wang), *Second International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>)* , Kellogg School of Management, Northern Western University, Evanston, Illinois, USA, June 22-26, 2016.
8. "Has Homo Economicus Evolved into Homo Sapiens? What Does the Corpus Linguistics Say?" (with Yawen Zoe), *2016 Chinese Economists Society Annual Conference (CES 2016)*, Peking University HSBC Business School, Shenzhen, China , June 10-12, 2016.
9. "Agent-Based Modeling of Chinese University Admission Mechanisms: from the Boston Mechanism to the Chinese Parallel Mechanism, Mission Accomplished?" (with Connie H Wang), *2016 Chinese Economists Society Annual Conference (CES 2016)*, Peking University HSBC Business School, Shenzhen, China, June 10-12, 2016.
10. "Agent-Based Modeling of a Non-Tatonnement Process for the Scarf Economy: The Role of Learning," (with Bin-Tzong Chie, Ying-Fang Kao, and Ragupathy Venkatachalam), *Fourth International Symposium in Computational*



*Economics and Finance (ISCEF)*, Paris, France, April 14-16, 2016.

11. "Is the IS Puzzle a Puzzle or an Aggregation Bias?" (with Lian-Sheng Yang, Chia-Ling Chang, and Yi-Heng Tseng), *Fourth International Symposium in Computational Economics and Finance (ISCEF)*, Paris, France, April 14-16, 2016.
12. "Taiwan Limit Order Book Transparency and Order Aggressiveness at the Closing Call: Lessons from the TWSE 2012 New Information Disclosure Mechanism," (with Yi-Heng Tseng), *2016 International Conference of Financial Engineering (ICFE2016)*, Tsinghua University at Shenzhen, Shenzhen, China, April 9-10, 2016.
13. "Heterogeneity in Generalized Reinforcement Learning and Its Relation to Cognitive Ability," (with Ye-Rong Du), *2016 North America Conference of the Chinese Economists Society (CES)*, Sacramento, California, USA, April 2-3, 2016.
14. "Has Homo Economicus Evolved Into Homo Sapiens: What Does Corpus Linguistics Say?" (with Yawen Zou), *Digitarium 2016*, University of Alabama, Tuscaloosa, Alabama, March 3-5, 2016.
15. "Agent-Based Modeling of a Non-Tatonnement Process for the Scarf Economy," (with Bing-Tzong Chie, Selda Kao and Ragupathy Venkatachalam), *42th Eastern Economic Association Annual Conference (EEA 2015)*, Washington, DC., Feb 25 – 28, 2016.
16. "Herbert Simon and Agent-Based Computational Economics," (with Selda Kao), Society for the Advancement of Behavioral Economics (**SABE**) Session on "Herbert Simon, Commemorating the Centenary of Simon's Birth," *2016 Allied Social Sciences Association (ASSA) Meetings*, San Francisco, California, US, January 2-5, 2016.
17. "Evolutionary Economics of the Web: Can Computational Intelligence Make Sentiment Analysis Another Price Discovery Process?" *The 4th International Conference on Intelligent Finance (ICIF-IV)*, Chongqing, Sichuan, China, December 10-12, 2015.
18. "Herbert Simon and Agent-Based Computational Economics," (with Selda Kao), *85th Annual Meeting of the Southern Economic Association (SEA 2015)*, New Orleans, Louisiana, November 21-23, 2015.
19. "Even Brothers Keep Careful Accounts: An Experimental Repeated Trust Game and Political Identity," (with Ye-Rong Du, Ray-May Hsung, Tien-Tun Yang), *2015 Economic Science Association (ESA) North American Meeting*, Sheraton Dallas, Dallas, Texas, October 22-24, 2015.
20. "Political Preferences Modulate Neural Correlates of Trusting Decisions," (with Yang-Teng Fan, Ray-May Hsung, Ho-Ling Liu, Ye-Rong Du, Tien-Tun Yang, Nai-Shing Yen, Chien-Te Wu), *Neuroscience 2015*, Chicago, October 17-21, 2015.
21. "When to Imitate and How it Matters for Price Discovery: An Agent-Based Approach," (with BinTzong Chie, Ying-Fang Kao and Ragupathy Venkatachalam), *80th International Atlantic Economic Conference (IAEC 2015)*, Omni Parker House Hotel, Boston, USA, October 8 -11, 2015.
22. "Stability of General Equilibrium Under Learning in an Agent-based Scarf Economy," (with BinTzong Chie, Ying-Fang Kao and Ragupathy Venkatachalam), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
23. "Efficiency of the Experimental Prediction Market: Heterogeneous Information, Belief, and Personality," (with Bin-Tzong Chie and Chung-Yu Wu), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
24. "The Formation and Destruction of Trust: Experimental Evidence from Network-Based Trust Games," (with Chung-Ching Tai and Yi-Ting Yeh), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
25. "Heterogeneity in Experience-Weighted Attraction Learning and Its Relation to Cognitive Ability," (with Ye-Rong Du), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
26. "On the Size Effect of a Simple Agent-Based Macroeconomic Model," (with Ying-Fang Kao and Ragupathy

- Venkatachalam), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
27. "Matching Impact of School Admission Mechanisms: An Agent-Based Approach," (with Connie Wang and Weikai Chen), *21th International Conference on Computing in Economics and Finance (CEF 2015)*, Taipei, Taiwan, June 20-22, 2015.
  28. "Herbert Simon and Agent-Based Computational Economics," (with Selda Kao), *95th Annual Meeting of the Southwestern Social Science Association (SSSA 2015)*, Denver, Colorado, April 8-11, 2015.
  29. "On the Size Effect of a Simple Agent-Based Macroeconomic Models," (with Selda Kao, Bing-Tzong Chie, and Timo Mayer), *41th Eastern Economic Association Annual Conference (EEA 2015)*, New York City, Feb 26 – March 1, 2015.
  30. "Matching Impact of University Admission Mechanism: An Agent-Based Approach" (with Connie Wang and Weikai Chen), *41th Eastern Economic Association Annual Conference (EEA 2015)*, New York City, Feb 26 – March 1, 2015.
  31. "Trust, Network, Wealth Accumulation and Distribution: An Agent-Based Model," (with Bin-Tzong Chie), *14th SAET Conference on Current Trends in Economics*, Waseda University, Tokyo, Japan, August 19-21, 2014.
  32. "Mechanisms of Trust Formation under Different Conditions of Political Identity," (with Tien-Tun Yang, Ray-May Hsung, Ye-Rong Du, Yi-Jr Lin), *XVIII ISA World Congress of Sociology*, Yokohama, Japan, July 13-19, 2014.
  33. "Economics as an Experimental Science: A Review of Some Recent Progresses," *The 12th Taiwan International Symposium on Statistical Physics and Complex Systems (StatPhys-Taiwan-2014)*, Institute of Physics, Academia Sinica, Taipei, Taiwan, June 28-30, 2014.
  34. "The Formation of Risk-Sharing Social Networks," (with Tong Zhang and Yu Wu), *20th International Conference on Computing in Economics and Finance (CEF 2014)*, BI Norwegian Business School and Norges Bank, Oslo, Norway, June 22-24, 2014.
  35. "The Donor-Recipient Games: Agent-based vs. Equation-based Modeling," (with Wen-Jong Ma and Chia-Yao Tseng), *20th International Conference on Computing in Economics and Finance (CEF 2014)*, BI Norwegian Business School and Norges Bank, Oslo, Norway, June 22-24, 2014.
  36. "Agent-based Modeling of the Donor-Recipient Games," (with Wen-Jong Ma and Chia-Yao Tseng), the *19th Annual Workshop on the Economic Science with Heterogeneous Interacting Agents (WEHIA 2014)*, Tianjin University, Tianjin, China, June 14-19, 2014.
  37. "Aggregation Problem in the New Keynesian DSGE model," (with Chia-Ling Chang and Yi-Heng Tseng), the *19th Annual Workshop on the Economic Science with Heterogeneous Interacting Agents (WEHIA 2014)*, Tianjin University, Tianjin, China, June 14-19, 2014.
  38. "The Formation of Risk-Sharing Social Networks," (with Tong Zhang and Yu Wu), *2014 Chinese Economists Society Annual Conference (CES 2014)*, Jinan University, Guangzhou, China, June 14-15, 2014.
  39. "Spatial Modeling of Agent-Based Prediction Markets," (with Bin-Tzong Chie), *2014 Chinese Economists Society Annual Conference (CES 2014)*, Jinan University, Guangzhou, China, June 14-15, 2014.
  40. "Network-Based Trust Games: An Agent-Based Model," (with Bin-Tzong Chie and Tong Zhang), *2014 Chinese Economists Society Annual Conference (CES 2014)*, Jinan University, Guangzhou, China, June 14-15, 2014.
  41. "Agent-Based Modeling of School Admission Systems," (with Weikai Chen and Connie Wang), *2014 Chinese Economists Society Annual Conference (CES 2014)*, Jinan University, Guangzhou, China, June 14-15, 2014.
  42. "Don't Get Mad, Get Even: Emotions in Ultimatum Games," (with Chia-Yang Lin), *2014 NeuroPsychoEconomics Conference*, Ludwig Maximilian University, Munich, Germany, May 29-30, 2014.
  43. "Heterogeneity in Experienced-Weighted Attraction Learning and Its Relation to Cognitive Ability," (with Ye-Rong Du), *2014 NeuroPsychoEconomics Conference*, Ludwig Maximilian University, Munich, Germany, May 29-30, 2014.

44. "Agent-Based Modeling of School Admission Systems: Comparison between the "Dark" and "Bright" Schemes" (with Connie Wang and Weikai Chen), *The 6th International Workshop on Emergent Intelligence on Networked Agents (WEIN'14)* at the *13th International Joint Conference on Autonomous Agents and Multi-Agent (AAMAS 2014)*, Paris, France, May 5, 2014.
45. "Order Aggressiveness in Call Auction: Lessons from Closing Call's Information Disclosure New Mechanism in Taiwan," (with Yi-Heng Tseng and Chia-Ling Chang), *The 5th FMCGC Financial Markets and Corporate Governance Conference*, Queensland University of Technology, Brisbane, Australia, April 22-24, 2014.
46. "Predicting Prediction Markets with Combined Forecasts," (with Chen-Yuan Tung, Chung-Ching Tai, Brian Chie, and Hung-Wen Lin), *Southwestern Society of Economists 2014 Annual Meeting*, Dallas, Texas, March 11-15, 2014.
47. "Enhancing Interdisciplinary Teaching with Agent-Based Models," *40th Eastern Economic Association Annual Conference*, Boston Park Plaza Hotel, Boston, March 6-9, 2014.
48. "Predicting Prediction Markets with Combined Forecasts," (with Chen-Yuan Tung, Chung-Ching Tai, Brian Chie, and Hung-Wen Lin), *40th Eastern Economic Association Annual Conference*, Boston Park Plaza Hotel, Boston, March 6-9, 2014.
49. "Don't Get mad, Get even: Emotion in Ultimatum Games," (with Chia-Yang Lin), *2014 Asia-Pacific Meeting of the Economic Science Association*, University of Auckland Business School, Auckland, New Zealand, February 19-21, 2014.
50. "On the Prediction Accuracy of Prediction Markets: Would the Spatial Distribution of Information Matter?" (with Bin-Tzong Chie), *International Workshop on Computational, Cognitive and Behavioral Social Science (CCB'2013)*, National Chengchi University, Taipei, Taiwan, Dec 6-8, 2013.
51. "Agent-Based Modeling of Donor-Receipts Games," (with Wen-Jong Ma and Chia-Yao Tseng), *International Workshop on Computational, Cognitive and Behavioral Social Science (CCB'2013)*, National Chengchi University, Taipei, Taiwan, Dec 6-8, 2013.
52. "On the Prediction Accuracy of Prediction Markets: Would the Spatial Distribution of Information Matter?" (with Bin-Tzong Chie), *The 2013 Winter Workshop on the Economic Science with Heterogeneous Interacting Agents (Winter ESHIA 2013)*, Nanyang Technology University, Singapore, Nov 18-19, 2013.
53. "Agent-Based Modeling of Donor-Receipts Games," (with Wen-Jong Ma and Chia-Yao Tseng), *The 2013 Winter Workshop on the Economic Science with Heterogeneous Interacting Agents (Winter ESHIA 2013)*, Nanyang Technology University, Singapore, Nov 18-19, 2013.
54. "NCCU International in Retrospect and Prospect: What Have We Done and What Have We Not?" *Taiwan Inclusive: Trends, Opportunities, and Challenges*, Miller Center, University of Virginia, Charlottesville, Virginia. November 15-16, 2013
55. "Role of Price in Industry Dynamics: A Modular Perspective," (with Bin-Tzong Chie), *25th Annual European Association of Evolutionary Political Economy (EAEPE'2013)*, Paris, France, November 7-9, 2013.
56. "Heterogeneity in Experienced-Weighted Attraction and Its Relation to Cognitive Ability," (with Ye-Rong Du and Lei Xiang Yang), *2013 Regional Economic Science Association (ESA) Conference*, Hotel Paradox, Santa Cruz, California, October 24-26, 2013.
57. "NCCU International in Retrospect and Prospect: What Have We Done and What Have We Not?" the *34th Korea-Sino Academic Conference*, Cheongju University, Cheongju, Korea, October 22, 2013.
58. "Trust, Growth, and Inequality: An Agent-Based Model," (with Bin-Tzong Chie), the *8th International Workshop on Agent-Based Approach in Economics and Social Complex Systems (AESCS 2013)*, Shibaura Institute of Technology, Tokyo, Japan, September 11-13, 2013.
59. "Industrial Dynamics, Fluctuation and Growth in a Quality-Based, Agent-Based General Equilibrium Model," (with Bin-Tzong Chie), *19th International Conference on Computing in Economics and Finance (CEF 2013)*,

Vancouver, BC, Canada, July 10-12, 2013.

60. "Networks of Wealth and Wealth of Networks," (with Bin-Tzong Chie), the *18th Annual Workshop on the Economic Science with Heterogeneous Interacting Agents (WEHIA 2013)*, Reykjavik University, Reykjavik, Iceland, June 20-22, 2013
61. "Cognitive Capacity and Earning Performance in Double-Auction Market Experiments" (with Chung-Ching Tai and Lee-Xieng Yang), *2013 Chinese Economists Society Annual Conference (CES 2013)*, Chengdu, China, June 8-10, 2013.
62. "Trust, Culture and Development: What We May Learn" (with Tong Zhang), *2013 Chinese Economists Society Annual Conference (CES 2013)*, Chengdu, China, June 8-10, 2013.
63. "From the El Farol Problem to a Good Society: How Do Social Networks and Cultures Affect What May Emerge?" (with Umberto Gostoli), the *2013 Chinese Economists Society Annual Conference (CES 2013)*, Chengdu, China, June 8-10, 2013.
64. "How Cognitive Capacity Affects Our Market Performance? An Experimental Study Based on Working Memory Capacity," (with Chung-Ching Tai and Lee-Xieng Yang), *Bay Area Behavioral and Experimental Economics Workshop (BABEEW 2013)*, Santa Clara University, Santa Clara, California, May 4, 2013.
65. "Cognitive Capacity and Cognitive Hierarchy: A Study Based on Beauty Contest Experiments," (with Ye-Rong Du and Lei Xieng Yang), *Symposium on Decision Science and Brain*, Research Center for Mind, Brain and Learning, National Chengchi University, Taipei, Taiwan. Feb 18, 2013.
66. "Cognitive Capacity and Cognitive Hierarchy: A Study Based on Beauty Contest Experiments," (with Ye-Rong Du and Lei Xieng Yang), *2012 Regional Economic Science Association (ESA) Conference*, Westward Look Resort, Tucson, Arizona, November 16-17, 2012.
67. "Transparency and Liquidity: A Revisit with Taiwan 2012 New Trading Mechanism," (with Yi-Heng Tseng and Chia-Ling Chang), *5th China Finance Review International Conference on Computing in Economics and Finance (CFRC'2012)*, Antai College of Economics and Management, Shanghai Jiaotong University, Shanghai, China, July 21-22, 2012.
68. "Agent-based Prediction Market: Market Mechanism, Social Network and Social Intelligence," *18th International Conference on Computing in Economics and Finance (CEF 2012)*, Prague, Czech, June 27-June 29, 2012.
69. "Social Network, Social Learning and Macroeconomic Dynamics: How Much Could Ernst Ising Help DSGE?" (with Chia-Ling Chang and Yi-Heng Tseng), *18th International Conference on Computing in Economics and Finance (CEF 2012)*, Prague, Czech, June 27-June 29, 2012.
70. "Intelligence and Level-k Reasoning in Beauty Contest Experiments: An Integrated Analysis," (with Ye-Rong Du and Lei-Xieng Yang), *Bay Area Behavioral and Experimental Economics Workshop (BABEEW 2013)*, Santa Clara University, Santa Clara, California, May 4-5, 2012.
71. "Predicting the Prediction Market: Would Smart Agents Help?" (with Chen-Yuan Tung, Chung-Ching Tai, Bin-Tzong Chie, Tzu-Chuan Chou), *38th Eastern Economic Association Annual Conference (EEA 2012)*, Park Plaza Hotel, Boston, US, March 9-11, 2012.
72. "Heterogeneity in Boundedly Rational Traders? Results from Double Auction Experiments," (with Chung-Ching Tai and Lee-Xieng Yang), *38th Eastern Economic Association Annual Conference (EEA 2012)*, Park Plaza Hotel, Boston, US, March 9-11, 2012..
73. "Intelligence and Level-k Reasoning in Beauty-Contest Experiments: An Integrated Analysis," (with Lei-Xieng Yang and Ye-Rong Du), SABE (Society for the Advancement of Behavioral Economics) Poster Session at the *2012 Allied Social Sciences Association (ASSA) Meetings*, Chicago, Illinois, US, January 5-8, 2012..
74. "From the El Farol Problem to a Good Society: How Social Networks and Cultures Affect What May Emerge?" *2011 Winter Workshop on Economic Heterogeneous Interacting Agents (WEHIA'2011)*, Tianjin University, Tianjin, China, Nov 4-5, 2011.

75. "When the El Farol Bar Problem Is Not a Problem? The Role of Social Preferences and Social Networks," (with Umberto Gostoli), *2<sup>nd</sup> Conference of the Computational Social Science of America*, Santa Fe, New Mexico, October 9-12, 2011.
76. "Heterogeneity in Boundedly Rational Traders? Results from Double Auction Experiments," (with Chung-Chih Tai and Lee-Xing Yang), *3<sup>rd</sup> Annual Meeting of the Academy of Behavioral Finance and Economics*, UCLA, Los Angeles, CA, September 21-23, 2011.
77. "To whom and where the hill becomes difficult to climb: Effects of personality and cognitive capacity in experimental DA markets," (with Umberto Gostoli, Chung-Chih Tai and Kuo-Chuan Shih), *3<sup>rd</sup> Annual Meeting of the Academy of Behavioral Finance and Economics*, UCLA, Los Angeles, CA, September 21-23, 2011.
78. "Personality and Preference: A Laboratory Study," (with Bin-Tzong Chih), *3<sup>rd</sup> Annual Meeting of the Academy of Behavioral Finance and Economics*, UCLA, Los Angeles, CA, September 21-23, 2011.
79. "The Decision-Making Process in a Double Auction Experiment: the Effect of Personality Traits and Working Memory," (with Umberto Gostoli, Chung-Ching Tai and Kuo-Chuan Shih), *2011 ICABEEP/IAREP/SABE conference*, Exeter, UK, July 12-16, 2011.
80. "Intelligence and Level-k Reasoning in Beauty-Contest Experiments: An Integrated Analysis," (with Lei-Xing Yang and Yeh-Rong Du), *2011 ICABEEP/IAREP/SABE conference*, Exeter, UK, July 12-16, 2011.
81. "Human Factors in the El Farol Bar Experiment," (with Chung-Chihg Tai and Umberto Gostoli), *International Meeting of the Economic Science Association (ESA 2011)*, Chicago, USA, July 7-10, 2011..
82. "Social Norm, Costly Punishment and the Evolution to Cooperation," (with Tongkui Yu and Honggang Li), *17<sup>th</sup> International Conference on Computing in Economics and Finance (CEF 2011)*, San Francisco, USA, June 29-July 1, 2011.
83. "Bottom-Up Coordination in the El Farol Bar Problem: The Role of Local Information and Social Network's Structure," (with Umberto Gostoli), *IEEE Congress on Evolutionary Computation (CEC 2011)*, New Orleans, USA, June 5-8, 2011.
84. "Non-Price Competition in an Agent-Based Modular Economy," (with Bin-Tzong Chie), *37<sup>th</sup> Eastern Economic Association Annual Conference*, New York City, New York, Feb 25-27, 2011.
85. "The role of costly punishment in promoting cooperation," (with Tongkui Yu and Honggang Li), *First Workshop on Quantitative Finance and Economics*, International Christian University, Tokyo, Feb 21-23, 2011.
86. "Investor Behaviors and Firm Competition in a Modular Economy: An Agent-Based Modeling Approach," (with Bin-Tzong Chie), *Asia Pacific Economic Science Association Meeting 2011*, Kuala Lumpur, Malaysia. February 10-13, 2011.
87. "Decision and Behavior in Ultimatum Game with Multi Targets," (with Chia-Yang Lin and Lee-Xieng Yang), *Asia Pacific Economic Science Association Meeting 2011*, Kuala Lumpur, Malaysia. February 10-13, 2011.
88. "The Significance of Working Memory Capacity in Double Auction Markets: Modeling, Simulation and Experiments," (with Chung-Ching Tai, Lee-Xieng Yang and Kuo-Chuan Shih), *SABE (Society for the Advancement of Behavioral Economics) Poster Session at the 2011 Allied Social Sciences Association (ASSA) Meetings*, Denver, Colorado, US, January 6-9, 2011.
89. "Market Fraction Hypothesis: A Proposed Test," (with Michael Kampouridis and Edward Tsang), *Econophysics Colloquium 2010*, Academic Sinica, Taipei, Taiwan, November 4-7, 2010.
90. "Liquidity Cost of Market Orders in Taiwan Stock Market: A Study based on An Order-Driven Agent-Based Artificial Stock Market," (with Yi-Ping Huang and Min-Chin Hung), *Econophysics Colloquium 2010*, Academic Sinica, Taipei, Taiwan, November 4-7, 2010.
91. "Testing the Dinosaur Hypothesis Under Different GP Algorithms," (with Michael Kampouridis and Edward Tsang), *10<sup>th</sup> Annual Workshop on Computational Intelligence (UKCI 2010)*, University of Essex, Colchester, UK, September 8-10, 2010.

92. "Agent-Based Social Simulation: A Bibliometric Review," (with Yu-Hsiang Yang), *3rd World Congress on Social Simulation (WCSS2010)*, University of Kassel, Kassel, Germany, September 6-9, 2010.
93. "Agent-Based Modeling of Cognitive Double Auction Market Experiments," (with Chung-Ching Tai and Lee-Xieng Yang), *3rd World Congress on Social Simulation (WCSS2010)*, University of Kassel, Kassel, Germany, September 6-9, 2010.
94. "On the beauty contest experiments: Is intelligence relevant?" (with Ye-Rong Du and Lee-Xieng Yang), *International Association for Research in Economic Psychology (IAREP) and Society for the Advancement of Behavioral Economics (SABE) Joint Conference*, Cologne, Germany, September 5-8, 2010.
95. "The optimal allocation model of corporate governance based on computational intelligence: Board composition and ownership structure to maximize the firm value," (with Hui-Sung Kao and Jan-Zan Lee), *2010 American Accounting Association Annual Meeting (2010AAA)*, San Francisco, U.S.A., July 31- August 4, 2010.
96. "Role of Pricing in an Innovation-Based Economy: Views from an Agent-Based Modular Economy," (with Bin-Tzong Chie), *Advances in Agent-Based Computational Economics (ADACE 2010)*, Bielefeld University, Germany, July 5-7, 2010.
97. "Building firm value function based on computational intelligence: Applying Ohlson model and considering corporate governance," (with Hui-Sung Kao and Jan-Zan Lee) *2010 Accounting & Finance Association of Australia and New Zealand (AFAANZ) Conference*, Christchurch, New Zealand, July 4-6, 2010.
98. "What Do We Learn about Culture from Experimental Economics?" (with Shu G Wang), *8th Crossroads*, Lingnan University, Hong Kong, June 17-21, 2010.
99. "Agents Learned, but Do We? An Illustration Using the Agent-Based Double Auction Markets," (with Tina Yu), *Sino-foreign-interchange Workshop on Intelligence Science and Intelligent Data Engineering (ISIDE'2010)*, Harbin, China, June 3-5, 2010.
100. "Artificial Economic Agents with Heterogeneous Cognitive Capacity and Their Economic Consequences: Study Based on Agent-Based Double-Auction Market Simulations," (with Tina Yu and Shu G Wang), *36th Eastern Economic Association Annual Conference*, Loew's Philadelphia, Philadelphia, Feb 26-28, 2010
101. "Empirical Puzzles or Aggregation Problems- A View of Agent-based Models," (with Chia-Ling Chang), *the Sixth International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'2009)*, National Chengchi University, Taipei, Taiwan, November 13-14, 2009.
102. "Agent-Based Modeling of Cognitive Double Auction Market Experiments," (with Chung-Chin Tai and Lei-Xieng Yang), *The Sixth International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'2009)*, National Chengchi University, Taipei, Taiwan, November 13-14, 2009.
103. "A Bibliometric Study of Agent Based Modeling Literature on SSCI Database," (with Yu-Hsiang Yang and Wen-Jen Yu), *The Sixth International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'2009)*, National Chengchi University, Taipei, Taiwan, November 13-14, 2009.
104. "Market Fraction Hypothesis: A Proposed Test," (with M. Kampouridis and E. Tsang), *The 9th Asia-Pacific Complex Systems Conference (Complex'09)*, Chou University, Tokyo, Japan, November 4-7, 2009.
105. "Emergent Complexity in Agent-Based Computational Economics," *Workshop on Nonlinearity, Complexity and Randomness*, Algorithmic Social Sciences Research Unit, CIFREM/Department of Economics, University of Trento, Italy, October 27-28, 2009. "
106. "On the beauty-contest experiments: Is intelligence relevant?" (with Lei-Xieng Yang and Yeh-Rong Du), in Martin Reimann and Oliver Schilke (eds.), *2009 NeuroPsychoEconomics Conference Proceedings*, LIFE&BRAIN Center, Bonn, Germany, October 5-6, 2009, p.29.
107. "Decision and behavior in ultimatum game with multitargets," (with Chia-Yang Lin and Lei-Xieng Yang), in Martin Reimann and Oliver Schilke (eds.), *2009 NeuroPsychoEconomics Conference Proceedings*, LIFE&BRAIN Center, Bonn, Germany, October 5-6, 2009, p.28.

108. "Microstructure Dynamics and Agent-Based Financial Markets," *First International Workshop on Managing Financial Instability in Capitalistic Economies (MAFIN09)*, Reykjavik, Iceland, September 3-5, 2009.
109. "Reinforcement Learning in Auction Experiments," (with Yi-Ling Hsieh), *International Association for Research in Economic Psychology (IAREP) and Society for the Advancement of Behavioral Economics (SABE) Joint Conference*, Saint Mary's University, Halifax, Canada, July 7 – July 11, 2009.
110. "Agent-Based Modeling of Cognitive Double Auction Market Experiments," (with Chung-Chi Tai and Li.-Xieng. Yang), *2009 International Meeting of the Economic Science Association (ESA'2009)*, Washington DC, June 25-28, 2009.
111. "Corporate Governance and Equity Evaluation: Nonlinear Modeling via Neural Networks," (with. Hui-Sung Kao and Jan-Zan Lee), *2009 Oxford Business & Economics Conference (OBEC'2009)*, St. Hugh's College, Oxford University, Oxford, UK, June 24-26, 2009.
112. "Market Fraction Hypothesis: A Proposed Test", (with Michael Kampouridis and Edward Tsang), *6th International Conference on Computational Management Science (CME'2009)*, Geneva, May 1-3, 2009.
113. "Microstructure Dynamics: An Approach Inspired by Agent-based Financial Markets", *IV International Meeting on Dynamics of Social and Economic Systems (DYSES 09)*, Hotel Libertador Pinamar, Argentina, April 14-18, 2009.
114. "Modeling Intelligence of Learning Agents in An Artificial Double Auction Market", (with Chung-Ching Tai), *IEEE Symposium on Computational Intelligence for Financial Engineering (CIFEr 2009)*, Nashville, Tennessee, USA, March 30 - April 2, 2009.
115. "Reinforcement Learning in Auction Experiments", (with Yi-Lin Yeh), *Eastern Economic Association Annual Conference*, New York City, USA, Feb 27-March 1, 2009.
116. "公司治理與股權評價—類神經網路之非線性模型" (與高惠松、李建然聯合發表), 2008 會計理論與實務研討會, 國立中興大學會計學, 97 年 12 月 4 日至 12 月 5 日
117. "Reinforcement Learning in Auction Experiments", (with Yi-Lin Hsieh), *2008 Winter Workshop on Economics with Heterogeneous Interacting Agents*, Kainan University, Taiwan, December 5-7, 2008.
118. "Significance of Heterogeneity in Financial Markets : Empirical Study from simple few-type model," (with Ying-Fang Kao), *2008 Winter Workshop on Economics with Heterogeneous Interacting Agents*, Kainan University, Taiwan, December 5-7, 2008.
119. "Agent-Based Economic Models and Econometrics", (with Ye-Rong Du), *2008 Winter Workshop on Economics with Heterogeneous Interacting Agents*, Kainan University, Taiwan, December 5-7, 2008.
120. "A Comparison of Effective Trading Agents in Double Auction Markets," (with Chung-Ching Tai), *The 7th International Conference on Computational Intelligence in Economics and Finance*, Kainan University, Taiwan, December 5-7, 2008.
121. "Agent-based economic models and econometrics", *International Workshop on Nonlinear Economic Dynamics and Financial Market Modelling*, Peking University, China, October 9-10, 2008.
122. "On Predictability and Profitability: Would AI induced Trading Rules be Sensitive to the Entropy of Time Series," (with N. Navet), *2nd Workshop: Bridging Mathematics, Natural Sciences, Social Sciences, and Finance*, International University of Monaco, Monaco, April 9-11, 2008.
123. "[Lottery Markets-Design, Micro-Structure and Macro-Behavior: An ACE Approach](#)," (with B.-C. Chie), *Agent-Based Modeling for Economic Policy Design (ACEPOL'05)*, Center for Interdisciplinary Research, University of Bielefeld, Germany, June 30 - July 2, 2005.
124. "Agent-Based Modeling of Lottery Markets: Policy-Making from the Bottom-Up," (with B.-C. Chie), *The First International Workshop on Complexity & Policy Analysis*, Department of Government, University College Cork, Cork, Ireland, June 22-24, 2005.
125. "Risk Preference, Forecasting Accuracy and Survival Dynamics: Simulations Based on a Multi-Asset Agent-

- Based Artificial Stock Market," (with Y.-C. Hwang), *The 3<sup>rd</sup> NTU International Conference on Economics, Finance and Accounting: Financial Regulation and Risk Management*, National Taiwan University, Taipei, Taiwan, May 19-21, 2005.
126. "Network Topologies and Network Externality," (with L.-C. Sun, C.-H Wang), *2005 NCTS May Workshop on Critical Phenomena and Complex Systems*, National Taiwan University, Taipei, Taiwan, May 13, 14, and 16, 2005.
127. "經濟學中的創新行為建模：遺傳規劃的觀點" (與池秉聰、陳俊元聯合發表)，第三屆創新與創造力研討會，國立政治大學創新與創造力研究中心，January 21-22, 2005.
128. "[Relative Risk Aversion and Wealth Dynamics](#)," (with Y.-C. Huang), *IATED International Conference on Financial Engineering and Applications (FEA'2004)*, MIT, Cambridge, USA, November 8-10, 2004.
129. "Risk Preference and Survival Dynamics," (with Y.-C. Huang), *the 5th International Conference on Simulated Evolution And Learning (SEAL04)*, BEXCO, Busan, Korea, October 26-29, 2004.
130. "Discovering Financial Patterns in the Foreign Exchange Markets," (with C.-Y. Tsao), *The 10th International Conference on Computing in Economics and Finance (SCE 2004)*, University of Amsterdam, Amsterdam, The Netherlands, July 8-10, 2004.
131. "[Experiments in a Software Aided Multiagent System](#)," (with C.-C. Tai), *The 10th International Conference on Computing in Economics and Finance (SCE 2004)*, University of Amsterdam, Amsterdam, The Netherlands, July 8-10, 2004.
132. "Discussing the Survivability Issue in Agent-Based Artificial Stock Market," (with Y.-C. Huang), *The 10th International Conference on Computing in Economics and Finance (SCE 2004)*, University of Amsterdam, Amsterdam, The Netherlands, July 8-10, 2004.
133. "Using Genetic Programming with Lambda Abstraction to Find Technical Trading Rules," (with T. Yu and T.-W. Kuo), *The 10th International Conference on Computing in Economics and Finance (SCE 2004)*, University of Amsterdam, Amsterdam, The Netherlands, July 8-10, 2004.
134. "[Agent-Based Modeling of Lottery Markets](#)," (with B.-T. Chie), *The Agent 2003 Conference on Challenges in Social Simulation*, University of Chicago, October 2-4, 2003.
135. "[Agent-Based Modeling of Lottery Markets](#)," (with B.-T. Chie), *2nd Lake Arrowhead Conference on Human Complex Systems*, Lake Arrowhead, California. March 19-22, 2003.
136. "Linear and nonlinear Granger causality in the stock price-volume relation : A perspective on the agent-based model of stock markets," (與廖崇智聯合發表)，第一屆全國行為財務學，理論與實體研討會，台北世新大學，December 21, 2002
137. "廠商創新與仿冒行為的演化 – 代理人基模型模擬與分析"，(與張嘉玲聯合發表)，中華民國科技管理研討會 2002 年會，高雄義守大學，December 13-14, 2002.
138. "Market Diversity and Market Efficiency: The Approach Based on Genetic Programming," (with C.-H. Yeh), in *Convention on the Study of Artificial Intelligence and the Simulation of Behaviour (AISB'01)*, University of York, UK, March 21-24, 2001.
139. "[The Comparison between Social Learning and Individual Learning: The Approach Based on Genetic Programming](#)," (with C.-H. Yeh), in *2nd Workshop on the Simulation of Social Agents: Architectures and Institutions (Agent'2000)*, The University of Chicago, Chicago, October 7-9, 2000.
140. "On Bargaining Strategies in the SFI Double Auction Tournaments: Is Genetic Programming the Answer?" in *6th International Conference of the Society for Computational Economics on Computing in Economics and Finance (SCE'2000)*, Universitat Pompeu Fabra, Barcelona, Catalonia, Spain, June 6-8, 2000.
141. "Toward an Integration of Social Learning and Individual Learning in Agent-Based Computational Stock Markets: The Approach Based on Population Genetic Programming," (with C.-H. Yeh), in *6th International*



- Conference of the Society for Computational Economics on Computing in Economics and Finance (SCE'2000)*, Universitat Pompeu Fabra, Barcelona, Catalonia, Spain, June 6-8, 2000.
142. "On the Emergent Properties of Artificial Stock Markets: Price-Volume Relation and Sunspots," (with C.-C. Liao and C.-H. Yeh), in *6th International Conference of the Society for Computational Economics on Computing in Economics and Finance (SCE'2000)*, Universitat Pompeu Fabra, Barcelona, Catalonia, Spain, June 6-8, 2000.
  143. "Would Wavelets Help in Neural-Nets Based Forecasting of Stock Price?: Evidences from 11 Stock Market Indices," (with C.-W. Tan), in *The 20th International Symposium on Forecasting (ISF 2000)*, Lisbon, Portugal, June 21-24, 2000.
  144. "Price Discovery in Agent-Based Computational Modeling of Artificial Stock Markets: What Make it Work and What Don't?", (with C.-C. Liao and T.-W. Kuo), in *The 20th International Symposium on Forecasting (ISF'2000)*, Lisbon, Portugal, June 21-24, 2000.
  145. "A Tutorial Guide to Agent-Based Computational Modeling of Artificial Stock Markets: With Specific Reference to the Software AIE-ASM Version 3, h(with C.-H. Yeh)," in *The 20th International Symposium on Forecasting (ISF'2000)*, Lisbon, Portugal, June 21-24, 2000.
  146. "Statistical Analysis of Genetic Algorithms in Market Timing," (with W.-Y. Lin, and C.-Y. Tsao), in *The 20th International Symposium on Forecasting (ISF'2000)*, Lisbon, Portugal, June 21-24, 2000.
  147. "Taiwan's Macroeconomy in the 1990s: An Overview," in *International Conference on President Lee Teng-hui's Legacy and Its Implications for the New Administration*, The Grand Hotel Taipei, Taiwan, May 12-13, 2000.
  148. "On the Role of Intensive Search in stock Markets: Simulations Based on Agent-Based Computational Modeling of Artificial Stock Markets," (with C.-H. Yeh), in *Proceedings of the Second Asia-Pacific Conference on Genetic Algorithms and Applications (APGA 2000)*, City University of Hong Kong, Hong Kong, May 3-5, 2000. Global Link Publishing Company, Hong Kong (ISBN: 962-8286-05-6). pp.397-402.
  149. "Evolving Bargaining Strategies with Genetic Programming: An Overview of "AIE-DA, Version1,"" in *Proceedings of the Second Asia-Pacific Conference on Genetic Algorithms and Applications (APGA'2000)*, City University of Hong Kong, Hong Kong, May 3-5, 2000. Global Link Publishing Company, Hong Kong (ISBN: 962-8286-05-6). pp.388-396.
  150. "Price Discovery in Agent-Based Computational Modeling of Artificial Stock Markets," (with C.-C. Liao), in *Proceedings of the Second Asia-Pacific Conference on Genetic Algorithms and Applications (APGA'2000)*, City University of Hong Kong, Hong Kong, May 3-5, 2000. Global Link Publishing Company, Hong Kong (ISBN: 962-8286-05-6). pp.380-387.
  151. "Testing Rational Expectations Hypothesis with Agent-Based Model of Stock Markets," (with C.-H. Yeh and C.-C. Liao), in *Evolutionary Economics in Tokyo: Papers of the Fourth Annual Conference of the Japan Association for Evolutionary Economics, (JAFEE'2000)*, Tokyo, Japan, March 25-26, 2000. pp. 142-145.
  152. "On the Role of Intensive Search in Stock Markets: Simulations Based on Artificial Stock Markets," (with C.-H. Yeh), in *Evolutionary Economics in Tokyo: Papers of the Fourth Annual Conference of the Japan Association for Evolutionary Economics, (JAFEE'2000)*, Tokyo, Japan, March 25-26, 2000. pp. 128-131.
  153. "Searching Financial Patterns with Self-Organizing Maps," (with H. He), in P. Wang (ed.), *Proceedings of the Fifth Joint Conference on Information Sciences (JCIS'2000)*, Atlantic City, New Jersey, Feb. 27- March. 3, Vol. II (ISBN:0-9643456-9-2). pp. 968-977.
  154. "Testing for Granger Causality in the Stock-Price Volume Relation: A Perspective from the Agent-Based Model of Stock Markets," (with C.-H. Yeh and C.-C. Liao), in P. Wang (ed.), *Proceedings of the Fifth Joint Conference on Information Sciences (JCIS'2000)*, Atlantic City, New Jersey, Feb. 27- March. 3, Vol. II (ISBN:0-9643456-9-2). pp. 950- 956. "Financial Innovation in Taiwan: An Application of Neural Network to the Broad Monetary Aggregates," (with A.M. Gazely and J. M. Binner), in P. Wang (ed.), *Proceedings of the Fifth Joint Conference on Information Sciences (JCIS'2000)*, Atlantic City, New Jersey, Feb. 27- March. 3, Vol. II (ISBN:0-9643456-9-2). pp.903-907.

155. "Financial Innovation in Taiwan: An Application of Neural Network to the Broad Monetary Aggregates," (with A.M. Gazely and J. M. Binner), in P. Wang (ed.), *Proceedings of the Fifth Joint Conference on Information Sciences (JCIS'2000)*, Atlantic City, New Jersey, Feb. 27- March. 3, 2000, Vol. II (ISBN:0-9643456-9-2). pp.903-907.
156. "VAR-VECM vs. Neural Nets with Divisia in Taiwan," (with J. Binner and A. Gazely), *4th Biennial Pacific Rim Allied Economic Organizations Conference*, Sydney, Australia, January 11-16, 2000.
157. "Evolving Traders and the Business School with Genetic Programming: A New Architecture of the Agent-Based Artificial Stock Market," (with C.-H. Yeh), *Taipei International Conference on Economic Growth*, the Institute of Economics, Academia Sinica, Dec. 17-18, 1999.
158. "Financial Innovation in Taiwan: An Application of Neural Networks to the Broad Monetary Aggregates," (with J. Binner, and A. Gazely), *Conference on Money, Investment and Risk*, The Nottingham Trent University, Nottingham, U.K., Dec. 9 -10, 1999.
159. "Estimating the Complexity Function of Financial Time Series: An Estimation Based on Predictive Stochastic Complexity," (with C.-W. Tan), *Conference on Epistemology of Economics*, University of Buenos Aires, Buenos Aires, Argentina, Oct. 15, 1999.
160. "Genetic Algorithms and Trading Strategies: Evidences from the ARCH Nonlinear Time Series," (with T.-I. Tsao), in *Proceedings of the Eighth International Fuzzy Systems Association World Congress*, Vol. 1, pp. 315-319.
161. "Are Efficient Markets Really Efficient?: Can Financial Econometric Tests Convince Machine Learning People?" Index," (with T.-W. Kuo), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 444-450.
162. "Forecasting High-Frequency Financial Time Series with Evolutionary Neural Trees: The Case of Hang-Shen Stock Index," (with H.-S. Wang and B.-T Zhang), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 437-443.
163. "Discovering Trading Rules with Genetic Algorithms: An Empirical Study Based on GARCH Time Series," (with C.-Y. Tsao), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 430-436.
164. "Brief Signals in the Real and Artificial Stock Markets: An Application Based on the Complexity Function," (with C.-W. Tan), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 423-429.
165. "An Application of Neural Networks to the Divisia Index Debate: The Case of Taiwan," (with J. Binner and A. Gazely), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 409-415.
166. "On the Consequence of "Following the Herd": Evidence from the Artificial Stock Market," (with C.-H Yeh), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 388-394.
167. "Testing Rational Expectations Hypothesis with Agent-Based Models of Stock Markets," (with C.-H Yeh and C.-C. Liao), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 381-387.
168. "Testing for Granger Causality in the Stock-Price Volume Relation: A Perspective from the Agent-Based Model of Markets," (with C.-H Yeh and C.-C. Liao), in H. R. Arabnia (ed.), *Proceedings of the International Conference on Artificial Intelligence (IC-AI'99)*, Vol. II, CSREA Press. (ISBN: 1-892512-17-3). pp. 374-380.
169. "A Review of the Chinese CGE Models from 1978 to 1998: Their Roles in Economic Forecasting and Policy Making" (with S.-W. Tseng), paper presented at the *19th International Symposium on Forecasting ( ISF'99)*, Washington, D.C., June 27-30, 1999.
170. "Evolving Traders and the Faculty of the Business School: A New Architecture of the Artificial Stock Market" (with

- C.-H. Yeh), paper presented at the *Fifth International Conference on Computing in Economics & Finance (CEF'99)*, Boston College, Chestnut Hill, MA., U.S.A. June 24-26, 1999.
171. "Would Evolutionary Computation Help for Designs of Artificial Neural Nets in Financial Applications?" (with C.-F. Lu), paper presented at the *Fifth International Conference on Computing in Economics & Finance (CEF'99)*, Boston College, Chestnut Hill, MA., U.S.A. June 24-26, 1999.
172. "Genetic Algorithms and Trading Strategies: New Evidences from Financially Interesting Time Series," (with W.-Y. Lin and C.-Y. Tsao), paper presented at the *Fifth International Conference on Computing in Economics & Finance (CEF'99)*, Boston College, Chestnut Hill, MA., U.S.A. June 24-26, 1999.
173. "On the Emergent Properties of Artificial Stock Markets." (with C.-H. Yeh), *4th Workshop on Economics with Heterogenous Interacting Agents (WEHIA)*, Genoa, Italy, June 4-5, 1999.
174. "Genetic Programming in an Agent-Based Artificial Financial Market: Simulations and Analysis," (with C.-H. Yeh), paper presented at the *Seventh Annual Symposium of the Society for Nonlinear Dynamics and Econometrics (SNDE'99)*, New York University, New York, U.S.A., March 18-19, 1999.
175. "Estimating the Complexity Function of Financial Time Series: An Estimation Based on Predictive Stochastic Complexity," (with C.-W. Tan), paper presented at the *Sixth International Conference on Computational Finance (CF'99)*, New York, U.S.A., January 6-8, 1999.
176. "Toward a Theoretical Foundation of Genetic Algorithms in Market Timing: Part 2," (with C.-F. Chen), in T. H. Hann and G. Nakhaeizadeh (eds.), *Working Notes of the KDD'98 Workshop on Data Mining in Finance*, Fourth International Conference on Knowledge Discovery and Data Mining (**KDD'98**), New York, New York, U.S.A, August 27-31, 1998. pp. 47-53.
177. "Toward a Theoretical Foundation of Genetic Algorithms in Market Timing: Part 1," in T. H. Hann and G. Nakhaeizadeh (eds.), *Working Notes of the KDD'98 Workshop on Data Mining in Finance*, Fourth International Conference on Knowledge Discovery and Data Mining (**KDD'98**), New York, New York, U.S.A, August 27-31, 1998. pp. 43-46.
178. "Option Pricing with Genetic Programming," (with C.-H. Yeh and W.-C. Lee), paper presented at *Society of Industrial and Applied Mathematics 46th Anniversary Meeting (SIAM'98)*, University of Toronto, Toronto, Canada, July 12-15, 1998.
179. "Hedging Derivative Securities with Genetic Programming," in J.A.K. Suykens and J. Vandewalle (eds.), *Proceedings of the International Workshop on Advanced Black-Box Techniques for Nonlinear Modelling*, Katholieke Universiteit Leuven, Belgium, July 8-10, 1998. pp.157-163.
180. "Simulating the Adaptive Behaviour of Oligopolists: An Application of Genetic Algorithms," (with C.-C. Ni), in V. Neevel (ed.), *Proceedings of the 8th International Symposium on Dynamic Games and Applications (ISDG'98)*, Chateau Vaalsbroek, Maastricht, The Netherlands, July 5-8, 1998. pp. 153-157.
181. "Simulating the Stability of Collusive Pricing of Oligopolists with Genetic Algorithms," (with C.-C. Ni), in R. I. John (ed.), *Recent Advances in Soft Computing'98, Vol.1: Neural Networks, Hybrid Systems and Genetic Algorithms* (ISBN: 185-721-2592), De Montfort University, Leicester, July 2-3, 1998. pp.206-212.
182. "Rethinking the Appeal of Evolution: Empirical Evidence from the Financial Application of Genetic Algorithms," (with W.-Y. Lin), in *Proceedings of 1997 Emerging Technologies Workshop (ET'97)*, University College London, London, U.K., December 15, 1997. pp.79-94.
183. "Speculative Trades and Financial Regulations: Simulation Based on Genetic Programming," (with C.-H. Yeh) in A. Ghose (ed.), *Working Notes of The IJCAI-97: Workshop on Business Applications of AI, Fifteenth International Joint Conference on Artificial Intelligence (IJCAI'97)*, Nagoya, Japan, August 23-29, 1997. pp.1-8.
184. "On the Randomness of Exchanges Rates: The Examination Based on Stochastic Complexity," (with C.-W. Tan), paper presented at the *Quantitative Methods in Finance 1997 (QMF'97)*, Sydney, Cairns, Canberr, Australia, August 20- September 3, 1997.

185. "Detecting Structural Changes with Recursive Genetic Programming," (with C.-H. Yeh), paper presented at the *Far Eastern Meeting of the Econometric Society (FEMES'97)*, Hong Kong, July 24-26, 1997.
186. "Numerical Methods in Option Pricing: Model-Driven Approach vs. Data-Driven Approach," (with W.-C. Lee), paper presented at *Society of Industrial and Applied Mathematics 45th Anniversary Meeting (SIAM'97)*, Stanford University, Stanford, California, U.S.A., July 14-18, 1997.
187. "Stock Market Efficiency and Predictive Stochastic Complexity," (with C.-W. Tan), paper presented at *Western Economic Association International 72nd Annual Conference*, Seattle, Washington, USA. July 9 - 13, 1997.
188. "Simulating and Analyzing Coevolutionary Instability of Multi-Agent Games with Genetic Algorithms," (with C.-C. Ni), paper presented at *Third International Conference on Computing in Economics and Finance*, Hoover Institution, Stanford, California. June 30 - July 2, 1997.
189. "Genetic Programming in Economics and Finance: A Preliminary Survey," *Academy of Economics and Finance 24th Annual Meeting*, Lafayette, Louisiana, U.S.A., February 12-15, 1997.
190. "Equilibrium Selection via Adaptation: Using Genetic Programming to Model Learning in a Coordination Game," (with J. Duffy and C.-H. Yeh), *The UCLA Center for Computable Economics and The Bionomics Institute Second Annual Conference*, Anderson Graduate School of Management, UCLA, Los Angeles, U.S.A., Feb. 7-8, 1997.
191. "Measuring Stock Market Efficiency by Rissanen's Predictive Stochastic Complexity," (with C.-W. Tan), *The Fifth Conference on the Theories and Practices of Security and Financial Markets*, National Sun Yat-Sen University, Kaohsiung, Taiwan, Dec. 21-22, 1996.
192. "Coevolutionary Instability in Games: An Analysis Based on Genetic Algorithms," (with C.-C. Ni), in V. Filar, V. Gaitsgory and F. Imado (eds.), *Proceedings of the Seventh International Symposium on Dynamic Games and Applications*, ShonN Village Center, Kanagawa, Japan. Dec. 16-18, 1996. Vol. 1, pp.82-90.
193. "連鎖店價格戰之研究 – 基因程式學習與應用" (with C. C.-C. Ni), in Y.-Y. Chen, K. Hirota, and J.-H. Yen (eds.), *Soft Computing in Intelligent Systems and Information Processing: Proceedings of 1996 Asian Fuzzy Systems Symposium*, Kenting, Taiwan, ROC, Dec. 11-14, 1996, Chinese Volume, pp. 11-27.
194. "On Shanghai and Shenzhen Stock Market Efficiency: An International Comparison Based on the Minimum Description Length Principle" (with C.-W. Tan), 第三屆中港股市研究會議，深圳銀湖賓館，December 12-13, 1996.
195. "Genetic Programming Learning in the Cobweb Model with Speculators," (with C.-H. Yeh), In *Proceedings of 3rd Conference on Business Education*, Department of Business Education, National Changhua University of Education, Chunghua, Taiwan. Dec. 5, 1996. pp.155-176.
196. "Measuring Stock Market Efficiency by the Minimum Description Length Principle: Cases of Asia-Pacific Countries," (with C.-W. Tan), *The Fifth Convention of the East Asian Economic Association*, Bangkok, Thailand, October 25-26, 1996.
197. "Understanding the Nature of Predatory Pricing in the Large-Scale Market Economy with Genetic Algorithms," (with C.-C. Ni, S. Feng, T. Li), paper presented at the IIGSS-CB *The First Workshop on General Systems Methodology and Applications (GSMA'96)*, Huazhong University of Science and Technology, Wuhan, China, July 16-18, 1996.
198. "On the Coordination and Adaptability of the Large Economy: An Application of Genetic Programming to the Cobweb Model," (with C.-H. Yeh) Preprints of *13th World Congress International Federation of Automatic Control*, San Francisco, CA, USA, June 30-July 5, 1996, Vol. L, pp.279-284.
199. "Genetic Algorithms and Genetic Programming Economics," (with C.-W. Tan) paper presented at the *Western Economic Association International 71st Annual Conference*, Hyatt Regency San Francisco, CA, USA, June 28-July 2, 1996.
200. "Rissanen's Stochastic Complexity in Financial Markets," (with C.-W. Tan), paper presented at *The Second International Conference on Computing in Economics and Finance*, Geneva, Switzerland, June 26-28, 1996.
201. "Equilibrium Selection through Adaptation: Using Genetic Programming to Model Learning in a Coordination

- Game," (with J. Duffy and C.-H Yeh), paper presented at The *Second International Conference on Computing in Economics and Finance*, Geneva, Switzerland, June 26-28, 1996.
202. "Modeling the Coordination Game as an Adaptive Multi-Agent System by Genetic Programming," (with J. Duffy and C.-H. Yeh), paper presented at The *Second International Conference on Applications of Dynamic Models to Economics*, Department of Economics, National Central University, ChungLi, Taiwan, R.O.C, June 8-9, 1996.
203. "Modelling the Inductive Learning Agents in Financial Markets with the Adaptive MDL," (with C.-W. Tan), paper presented at the the *1996 Chinese Society of Statistics Annual Meeting*, June. 1, 1996, National Tsing Hwa University, Hsinchu, Taiwan, R.O.C.
204. "Stochastic Complexity and Stock Market Efficiency," (with C. Tan), paper presented at the *Eastern Finance Association Thirty-Second Annual Meeting*, Omni Charlotte Hotel, Charlotte, North Carolina, April 18-20, 1996.
205. "Modelling Coordination Game as a Multi-Agent Adaptive System by Genetic Programming", (with J. Duffy and C. Yeh) in W. Van de Velde and J. W. Perram (eds.) *Position Papers of the 7th European Workshop on Modelling Autonomous Agents in a Multi-Agent World (MAAMAW'96)*, Technical Report 96-1, Institute for Perception Research, Eindhoven, The Netherlands, Jan 22-25, 1996.
206. "Measuring Stock Market Efficiency Dynamically by Rissanen's MDL", (with C. Tan), paper presented at *Western Economic Association International Pacific Rim Allied Economic Organization Conference*, Hong Kong, Jan. 10-15, 1996.
207. "理性預期在蛛網模型中的形成過程：遺傳規畫在調適性多決策都系統中的應用" (與葉佳炫聯合發表)，中國經濟學會年會，臺北市中華經濟研究院，December, 17, 1995
208. "Measuring Stock Market Efficiency Dynamically by Rissanen's MDL: The Case of TAIEX and S&P 500", (with C. Tan), paper presented at the *Fourth Annual Conference on the Theories and Practices of Security and Financial Markets*, National Sun Yat-Sen University, Kaoshiung, Taiwan, R.O.C., Dec. 16-17, 1995.
209. "總體經濟學教學的新環境：以大型資料庫、電腦模擬與實驗教學為主的知識發掘過程，中華民國第二屆商業教育學術論文發表會論文集，pp. 151-168，國立彰化師範大學寶山校區，Dec. 7, 1995
210. "Information Transmission, Market Efficiency and the Evolution of Information-Processing Technology," in C. Houg (ed.) *Proceedings of the 1995 National Conference on Management of Technology*, pp.339-348. Chinese Society of Management of Technology.
211. "Bridging the Gap between Nonlinearity Tests and the Efficient Market Hypothesis by Genetic Programming", (with C. Yeh), paper presented at the *1995 International Conference on Finance*, Nov. 6-7, National Taiwan University, Taipei, Taiwan, R.O.C.
212. "獨佔媒體下意向調查的品質：細胞互動通訊網路的應用" (與程永夏聯合發表)，1995 傳播生態學術研討會論文集：(一) 學術論文，交通大學，新竹，July 15-16, 1995, pp. 50-90.
213. "On the Coordination and Adaptability of the Large Economy: An Application of Genetic Programming to the Cobweb Model", (with C.Yeh) in *Proceedings of the First International Conference on Applications of Dynamic Models to Economics*, the School of Management National Central University's International Conference Series: 3 (1995-3), ChungLi, Taiwan, R.O.C., June 17-18, 1995, pp.121-159.
214. "股價漲跌之複雜度與市場效率：MDL 法則在臺灣與美國股市效率比較上的應用" (與譚經緯聯合發表)，84 年統計學術研討會，逢甲大學，臺中，May 26-27, 1995
215. "Toward a Computable Approach to the Efficient Market Hypothesis: An Application of Genetic Programming Paradigm", (with C.Yeh) paper presented at the *1st International Conference on Computational Economics*, Austin, Texas, U.S.A., May 21-24, 1995.
216. "Genetic Programming, Predictability and Stock Market Efficiency", (with C.Yeh) paper presented at the *Eastern Finance Association 31st Annual Meeting*, Hilton Head Island, South Carolina, U.S.A., Apr.27-29, 1995.
217. "自我實現預期、貝氏學習與經濟謊言：細胞互動模型的模擬分析"，國科會 83 年度經濟學門專題計畫研究成果發表

- 會，中央研究院經濟研究所，April 14-15, 1995.
218. "On the Competitiveness of the Quantity Theory of Money: A Natural-Selection Test Based on Genetic Programming", (with C.Yeh) paper presented at the *11th International Conference on Advanced Science and Technology*, pp.242-251, Chicago, Illinois, U.S.A., Mar.25-27, 1995.
219. "貨幣數量學說的競爭性：遺傳規畫在知識發掘上的應用" (與葉佳炫聯合發表)，社會科學計量方法發展與應用學術研討會，中央研究院中山人文社會科學研究所，March 9, 1995.
220. "臺灣股市漲跌複雜度之研究：Rissanen MDL 法則的應用" (兵譚經緯聯合發表)，第一屆機率統計之理論與應用研討會，臺北市國立政治大學，March 4, 1995.
221. "Predicting Stock Returns with Genetic Programming: Do the Short-Term Nonlinear Regularities Exist?", (with C. Yeh) in D. Fisher (ed.), *Proceedings of the Fifth International Workshop on Artificial Intelligence and Statistics, Society for Artificial Intelligence and Statistics*, Ft. Lauderdale, Florida, U.S.A., January 4-7, 1995, pp.95-101.
222. "自我實現預期、貝氏學習與經濟謊言：細胞互動模型的模擬與分析"，(與程永夏聯合發表)，中國經濟學會 1994 年年會，臺北市國立臺灣大學，December 18, 1994.
223. "On the Competitiveness of the Quantity Theory of Money: A Natural-Selection Test Based on Genetic Programming ", (with C.Yeh) paper presented at the *Conference on Forecasting, Prediction and Modeling in Statistics and Economics (CFPMSE'94) and Regional Meeting of International Society for Bayesian Analysis*, Dec.12-14, National Chiao Tung University, Hsinchu, Taiwan, R.O.C.
224. "遺傳規畫與股價報酬率之預測"，(與葉佳炫聯合發表)，第三屆證券金融市場之理論與實務研討會，高雄國立中山大學，December 10, 1994, pp. 486-499.
225. "空屋率的模型選擇及其穩定性：遺傳規畫的應用"，(與林祖嘉、葉佳炫聯合發表)，淡江大學第二屆產業經濟學術研討會，November 27, 1994.
226. "遺傳規畫與科技預測" (與葉佳炫聯合發表)，1994 中華民國科技管理研討會論文集，新竹國立交通大學，October 21, 1994, pp. 377-391.
227. "Uncertainty and Rationality ",(with J. Kuo and C. Lin), paper presented at the *69th Western Economic Association International Annual Conference*, Vancouver, Canada, June 29 - July 3, 1994.
228. "From Hayek to Animal Spirits", (with J. Kuo and C. Lin), presented at the *Western Economic Association International Pacific Rim Conference*, Hong Kong, January 8-13, 1994.
229. "從海耶克假說到動物本能：競爭性實驗市場中的理性與不確定性"，(與郭振雄和林祖嘉聯合發表)，中國經濟學會 1993 年年會，臺北市國立台灣大學，December 26, 1993
230. "Multiple Equilibria, Credibility and Coordination Failures: A Simulation based on the Model of Cellular Automata", paper presented at the *68th Western Economic Association International Conference, Lake Tahoe, Nevada, USA, June 20-24 1993 and at 1993 Far-Eastern Meeting of the Econometric Society*, Taipei, Taiwan, R.O.C., June 24-28 1993.
231. "Complexity of Economic Activities and Economic Laws", invited session talk at the *67th Western Economic Association International Conference*, San Francisco, California, USA, July, 1992.

## PUBLICATIONS: Others [Top](#)

1. "中國經濟中的管理浮動匯率制度一般均衡方法"，(與曾聖文合著)，汪壽陽、楊曉光、徐山鷹編輯，金融管理與宏觀經濟分析，科學出版社，頁 144-166. 2001
2. "小波 (wavelets) 對金融預測有助益嗎？" (與譚經緯合著)，汪壽陽、楊曉光、徐山鷹編輯，金融管理與宏觀經濟分

析, 科學出版社, 頁九--二十. 2001

3. "Evolutionary Computation in Financial Engineering: A Roadmap to GAs and GP," *Financial Engineering News*, 1998, Vol. 2, No.4.
4. “第七屆演化規劃會議”, 科學發展月刊, 第 26 卷, 第 11 期, pp. 6-10.
5. "From the Hayek Hypothesis to Animal Spirits: The Phase Transition based on Competitive Experimental Market" (with J. Kuo and C. Lin), Department of Economics, *National Chengchi University*, Working Paper Series # 9404, 1994.
6. “從海耶克假說到動物本能：競爭性實驗市場中的理性與不確定性”，（與郭振雄和林祖嘉），國立政治大學經濟系，Working Paper Series #9403, 1994.
7. "Complexity of Economic Activities and Economic Laws", *UCLA Center for Computable Economics*, Working Paper #5, 1993.
8. "A Test of Rational Expectations and the Permanent Income Hypothesis Using Swedish Data 1963-1987: Discussion", in K. Velupillai (ed.), *Nonlinearities, Disequilibria and Simulation: Quantitative Methods in the Stabilization of Macrodynamical Systems*, Macmillan, London, 1992.
9. "On the Complexity in Adaptive Economic Systems: the relation between RBS and PDP in Adaptive Economic Systems", Ph.D. dissertation, UCLA, 1992.
10. “後理性預期時代總體經濟學的發展：隨機逼近程式”，國立政治大學研究通訊，第三期，1995, pp. 97-111
11. “實驗方法在經濟學的起源與發展” (郭振雄), 國立政治大學研究通訊，第二期，1994, pp. 81-107
12. “論經濟學之認知基礎：經濟學之關於演化、資訊與計算理論的統合性架構”，國立政治大學研究通訊，第一期，1993, pp. 33-73.

## PROFESSIONAL ORGANIZATIONS [Top](#)

- Pacific Asian Association for Agent Based Social Sciences

## Academic Services [Top](#)

- Referee for International Journal
  - *Journal of Economic Dynamics and Control*, 2004
  - *Computational Management Science*, 2004.
  - *Advance in Econometrics*, 2004.
  - *Physica A*, 2004.
  - *Econometrics*, 2004.
  - *International Journal of Modern Physics B*, twice, 2004.
  - *Quantitative Finance*, 2002.
  - *Studies in Nonlinear Dynamics and Economics*, 2001.
  - *Genetic Programming and Evolvable Machines*, 2000.
  - *IEEE Transactions on Systems, Man, and Cybernetics*, 2000
  - *Asia Pacific Journal of Finance*, 99
  - *IEEE Transactions on Evolutionary Computation*, 98, 99, 2000.
  - *Journal of Economics and Management*, 98, 2000
  - *Games and Economic Behaviour*, 98.
  - *Journal of Intelligent System in Accounting, Business, and Management*, 98.

- *Neural Network World*, 97.
- *Journal of Economic Dynamics and Control*, 96, 97 (twice), 99 (three times), 2000
  
- **Referee for International Research Projects:**
  - Engineering and Physical Sciences Research Council (**EPSRC**), U.K., 2004
  - Engineering and Physical Sciences Research Council (**EPSRC**), U.K., 2002
  - The Swiss National Science Foundation, 2002
  - Research Grants Council of Hong Kong, 2002
  - The Leverhulme Trust, U.K., 2001
  
- **Referee for International Academic Promotions**
  - Professor in Information Modeling, Nottingham Business School, UK., 2002.
- Executive Committee, Taiwanese Association of Artificial Intelligence (**TAAI**), 1996-2000.
- Executive Committee, International Institute for General Systems Studies-China Branch (**IIGSS-CB**), 1996-.
  
- **Conference Chair for International Conferences**
  - Conference Chair, *The Sixth International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'09)*, Taipei, Taiwan, Nov. 13-14, 2009.
  - Conference Chair, *The Seventh International Conference on Computational Intelligence in Economics and Finance (CIEF'2008)*, Taoyuan, Taiwan, Dec. 5-7, 2008.
  - Conference Chair, *The Sixth International Conference on Computational Intelligence in Economics and Finance (CIEF'2007)*, Salt Lake City, Utah, USA, Jul. 18-24, 2007.
  - Conference Chair, *The Fifth International Conference on Computational Intelligence in Economics and Finance (CIEF'2006)*, Kao-hsiung, Taiwan, Oct. 8-11, 2006.
  - Conference Chair, *The Fourth International Workshop on Computational Intelligence in Economics and Finance (CIEF'2005)*, Salt Lake City, Utah, USA, Jul. 21-26, 2005.
  - Conference Chair, *The Third International Workshop on Computational Intelligence in Economics and Finance (CIEF'2003)*, Cary, North Carolina, Sep., 29-30, 2003.
  - Organizing Committee, *Workshop on Multiagent for Mass-User Support (MAMUS)*, Acapulco, Mexico, August 9, 2003.
  - Session Organiser, Special Session: Applications of AI in Finance & Economics, *The 2003 International Conference on Artificial Intelligence (IC-AI'03)*, Las Vegas, USA, June 23-26, 2003.
  - Conference Chair, *The AAI-02 Workshop on Multi-Agent Modeling and Simulation of Economic Systems (MAMSES-02)*, Edmonton, Alberta, Canada, 2002.
  - Conference Chair, *The Second International Workshop on Computational Intelligence in Economics and Finance (CIEF'2002)*, Research Triangle Park, North Carolina, 2002.
  - Conference Chair, *The First International Workshop on Computational Intelligence in Economics and Finance (CIEF'00)*, Atlantic City, New Jersey, 2000.
  
- **Program Committee for International Conferences**
  - Program Committee, the 15<sup>th</sup> *International Conference on Computing Economics and Finance (CEF'09)*, Sydney, Australia, 2009.
  - Program Chair, *the Sixth International Conference on Simulated Evolution and Learning (SEAL'06)*, Hefei, Anhui, China, Oct. 15-18, 2006.
  - Program Committee, *the First World Conference on Social Simulation (WCSS'06)*, Kyoto, Japan, Aug.



21-25, 2006.

- Scientific Committee, *the 12<sup>th</sup> International Conference on Computing Economics and Finance (CEF '06)*, Limassol, Cyprus, June 22-24, 2006.
- Programme Committee, *ICSC Symposium on Advanced Computing in Financial Markets (ACFM'2005)*, Istanbul, Turkey, December 12-14, 2005.
- Programme Committee, *The 2005 International Conference on Natural Computation (ICNC'05) and the 2005 International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'05)*, Hunan, China, Sep. 24--26, 2005.
- Programme Committee, *International Conference of Computational Intelligence and Multimedia Applications (ICCIMA'05)*, University of Nevada, Las Vegas, USA, August 16 - 18, 2005.
- Programme Committee, *The 11-th International Conference for the Society of Computational Economics (SCE'2005)* on "Computing in Economics and Finance", Washington, D.C., June 26-29, 2005.
- Programme Committee, *The IASTED International Conference on Financial Engineering and Application (FEA-2004)*, Boston, Massachusetts, Nov. 8-11, 2004.
- Programme Committee, *The 2004 IFAC Symposium on Modeling and Control of Economic Systems*, University of Redlands, CA, July 28 - 31, 2004.
- Programme Committee, *The 10-th International Conference for the Society of Computational Economics (SCE) on "Computing in Economics and Finance"*, University of Amsterdam, July 8-10, 2004.
- Programme Committee, *5th International Symposium on Soft Computing for Industry with Applications of Financial Engineering (ISSCI 2004)*, Sevilla, Andalusia, Spain, June 28 - July 4, 2004.
- Program Committee, *The Sixth Annual Genetic and Evolutionary Computation Conference (GECCO-2004)*, Seattle, Washington, June 26-30, 2004.
- Program Committee, *The Third International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS'04)*, Kyoto University, Kyoto, Japan. May 27-29, 2004.
- Program Committee, *The 9th Annual Workshop on Economics with Heterogeneous Interacting Agents (WEHIA'2004)*, Kyoto University, Kyoto, Japan. May 27-29, 2004.
- Referee, *The Fifth Annual Genetic and Evolutionary Computation Conference (GECCO-2003)*, Chicago, Illinois, July 12-16, 2003.
- Programme Committee, *The 2003 Conference of the Society for Computational Economics (SCE 2003)*, University of Washington, Seattle, July 11-13, 2003.
- Programme Committee, *The IASTED International Conference on Financial Engineering and Application (FEA-2003)*, Banff, Canada, July 2-4, 2003.
- Scientific Committee, *The 8th Annual Workshop on Economics with Heterogeneous Interacting Agents (WEHIA'2003)*, Kiel, Germany, May 29-31, 2003.
- Programme Committee, *6th European Conference on Genetic Programming (EuroGP2003)*, Essex, UK, April 14-16, 2003.
- Programme Committee, *the 4th Asia-Pacific Conference on Simulated Evolution And Learning, (SEAL'02)*, Singapore, November 18-22, 2002.
- Programme Committee, *The 6th International Conferences on Complex Systems 2002 ( CS02)*, Tokyo, Japan, Sep. 9-11, 2002.
- Programme Committee, *The First International Joint Conference on Autonomous Agents & Multi-Agent Systems ( AAMAS 2002 )*, Bologna, Italy, July 15-19, 2002.
- Program Committee, *The Fourth Annual Genetic and Evolutionary Computation Conference, (GECCO-*

**2002**), New York city, July 9-13, 2002.

- Scientific Committee, *The 2002 Conference of the Society for Computational Economics*, Aix en Provence, France, June 27-29.
- Programme Committee, *5th European Conference on Genetic Programming (EuroGP2002)*, Kinsale, Ireland.
- Programme Committee, *The 14th International Conference on Computer Applications in Industry and Engineering (CAINE-2001)*, Las Vegas, Nevada, November 27-29, 2001.
- Programme Committee, *The 4th International Conference on Computational Intelligence and Multimedia Applications (ICCIMA01)*, Shonan International Village, Yokosuka, Japan, October 30 - November 1, 2001.
- Programme Committee, *the 2001 IFAC Symposium on Modeling and Control of Economic Systems*, Klagenfurt, Austria, September 6-8, 2001.
- Programme Committee, *The Third Annual Genetic and Evolutionary Computation Conference (GECCO-2001)*, San Francisco, California, July 7-11, 2001.
- Programme Committee, *2001 Congress on Evolutionary Computation (CEC'2001)*, Seoul, Korea, May 27-30, 2001.
- Programme Committee, *JSAI 2001 International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS 2001)*, Matsue City, Shimane, Japan, May 21-22, 2001.
- Programme Committee, *4th European Conference on Genetic Programming (EuroGP2001)*, Lake Como (milan), Italy, April 18-20, 2001.
- Programme Committee, *Second International Conference on Intelligent Data Engineering and Automated Learning (IDEAL'2000)*, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong, December 13-15, 2000.
- Programme Committee, *The 5th Conference on Artificial Intelligence and Its Applications*, National Taiwan University of Technology, November 17.
- Programme Committee, *13th International Conference on Computer Applications in Industry and Engineering (CAINE-2000)*, Sheraton Princess Kaiulani Hotel, Honolulu, Hawaii USA, November 1 - 3, 2000.
- Programme Committee, *The Third Asia-Pacific Conference on Simulated Evolution And Learning (SEAL2000)*, Nagoya Congress Center, Nagoya, Japan, Oct. 25 - 27, 2000.
- Programme Committee, *Australian Symposium on Applications of Artificial Intelligence in Industry (AIAPPS'2000)*, Melbourne, Australia.
- Programme Committee, Special Session on *The 2000 Congress on Evolutionary Computation (CEC'2000)*, San Diego, U.S.A., July 16-19, 2000.
- Programme Committee, *The 2000 Genetic and Evolutionary Computation Conference (GECCO'2000)*, Las Vegas, Nevada, July 8-12, 1999.
- Programme Committee, *6th International Conference of the Society for Computational Economics on Computing in Economics and Finance*, Universitat Pompeu Fabra, Barcelona, Catalonia, Spain, July 6-8, 2000.
- Programme Committee, *The Second Asia-Pacific Conference on Genetic Algorithms (APGA'2000)*, Hong Kong, May, 2000.
- Programme Committee, *1999 National Computer Symposium ( NCS'99)*, Tamkang University, Taipei, Dec. 20-22, 1999.
- Programme Committee, *The 1999 Genetic and Evolutionary Computation Conference (GECCO'99)*, Orlando, Florida, July 13-17, 1999.

- Programme Committee, *The 1999 Congress on Evolutionary Computation (CFC'99)*, Washington D.C., U.S.A., July 6-9, 1999.
- Programme Committee, *The Second International Conference on Simulated Evolution and Learning (SEAL'98)*, Canberra, Australia, Nov. 24-27, 1998.
- Programme Committee, *The 10th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'98)*, Taipei, Taiwan, Nov. 10-12, 1998.
- Programme Committee, *1998 International Symposium on Intelligent Data Engineering and Learning (IDEAL'98)*, Hong Kong, October 15-17, 1998.
- Programme Committee, *1998 International Conference on Genetic Programming (GP'98)*, Wisconsin University, Madison, Wisconsin, U.S.A., July 22-25, 1998.
- Programme Committee, *The Third International Workshop of The International Institute for General Systems Studies (IIGSS)*, Beidaihe, Qinhuangdao, China, July 26-28, 1998.
- Programme Committee, *2nd World Congress on computational Intelligence (WCCI'98)*, Anchorage, Alaska, U.S.A., May 5-9, 1998.
- Programme Committee, *The 13th International Conference of the International Society on Computers and Their Applications, (CATA'98)*, Honolulu, Hawaii, U.S.A., March 18-20, 1998.
- Programme Committee, *Tenth International Conference on Computer Applications in Industry and Engineering (CAINE'97)*, Ramada Emily Morgan, San Antonio, Texas, USA, December 10 - 12, 1997.
- Programme Committee, *1997 International Conference on Genetic Programming (GP'97)*, Stanford, California, U.S.A., July 13-16, 1997.
- Programme Committee, *The Fourth IEEE International Conference on Evolutionary Computation (ICEC'97)*, April, 1997.
- Programme Committee, *The 12th International Conference of the International Society on Computers and Their Applications, (CATA'97)*, Tuscon, Arizona, U.S.A., Mar. 13-15, 1997.
- Programme Committee, *The First International Conference on Simulated Evolution and Learning (SEAL'96)*, Seoul, Korea, Nov. 9-11, 1996.
- Programme Committee, *1996 International Conference on Genetic Programming (GP'96)*, Stanford, California, U.S.A., July 28-31, 1996.
- Programme Committee, *1996 IIGSB-CB The First Workshop on General Systems Methodology and Applications (GSMA'96)*, July 16-18, 1996, Wuhan, China.

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