

# Curriculum Vitae

Shi-Woei Lin 林希偉

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## Contact Information

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## Education

- 1997–2004      **Ph.D. in Industrial and Systems Engineering**  
Department of Industrial and Systems Engineering  
University of Wisconsin–Madison
- 1999–2001      **M.S. in Statistics**  
Department of Statistics  
University of Wisconsin–Madison
- 1995–1996      **M.S. in Industrial and Systems Engineering**  
Department of Industrial and Systems Engineering  
University of Wisconsin–Madison
- 1988–1992      **B.S. in Industrial Engineering**  
Department of Industrial Engineering  
Tunghai University, Taichung, Taiwan, R.O.C

## Academic Experience

- 2012–present      Associate Professor  
Department of Industrial Management  
National Taiwan University of Science and Technology, R.O.C.
- 2010–2012      Associate Professor  
College of Management (Department of Business Administration)  
Yuan Ze University, R.O.C.
- 2004–2010      Assistant Professor  
Department of Business Administration and Graduate Institute of Management  
Yuan Ze University, R.O.C.

- 1999–2004      Research Assistant  
 Department of Medical Physics / Department of Industrial Engineering  
 University of Wisconsin–Madison
- 1998–1999      Project Assistant  
 Department of Dairy Science  
 University of Wisconsin – Madison

### **Statistical Consulting Experience**

- 03/2002–05/2002    Department of Linguistics  
 University of Wisconsin–Madison
- 09/2002–10/2002    Department of Marketing (School of Business)  
 University of Wisconsin–Madison

### **Training Related to Research Ethics (研究倫理課程相關訓練)**

- 10/07/2015      2-hour Educational Training Courses of Workshop for Research Ethics  
 Review Application IV in 2015, Division of Research Ethics, National  
 Taiwan University

### **Honors and Awards**

- 2004/12      Travel Scholarship (Society for Risk Analysis)
- 2007/12      Best Paper Award (Chinese Society for Management of Technology Annual Meeting)
- 2008 – 2009      Treasurer, Operations Research Society of Taiwan (ORSTW)
- 2010 – 2011      Councilor, Operations Research Society of Taiwan (ORSTW)
- 2010 – 2012      國科會 99 年度、100 年度補助大專校院獎勵特殊優秀人才
- 2011/05      Publication Chair, International Joint Conference on Service Sciences (IJCSS 2011)
- 2013      Outstanding Advisor Award (National Taiwan University of Science and Technology)
- 2014      Guest Editor, Journal of Quality
- 2012 – 2014      Managing Editor, International Journal of Operations Research (IJOR)
- 2014 – Present    Area Editor, International Journal of Operations Research (IJOR)
- 2014      Distinguished Teaching Award (National Taiwan University of Science and Technology)
- 2015 – Present    Councilor, Society for Risk Analysis of Taiwan (TSRA)

## Research Grants

- 2005/1 – 2005/7 國科會計畫編號 NSC94-2213-E-155-017  
當元件非獨立時之整合性與非整合性貝氏分析之比較研究  
計畫主持人
- 2005/8 – 2006/7 國科會計畫編號 NSC94-2416-H-155-010  
激勵機制在風險告知管制上的設計與應用  
計畫主持人
- 2006/3 – 2006/11 北市府委託計畫 BAP-94003  
台北市政府委外業務效能評估暨改進之研究  
計畫主持人
- 2006/8 – 2007/7 國科會計畫編號 NSC95-2416-H-155-013  
期貨市場錯置效果之實證研究與投資人行爲之演化賽局  
計畫主持人
- 2007/8 – 2008/7 國科會計畫編號 NSC96-2416-H-155-008  
專家過度自信現象與其機率區間估計之整合  
計畫主持人
- 2008/8 – 2009/7 國科會計畫編號 NSC97-2221-E-155-046  
整合專家機率分配判斷的貝氏校準模型之設計  
計畫主持人
- 2010/8 – 2012/7 國科會計畫編號 NSC99-2410-H-155-034-MY2  
風險管制賽局的機制設計  
計畫主持人
- 2012/3 – 2012/12 桃園市公所委託計畫 101-YS-086  
桃園市公所101年提升服務品質策略規劃與管理  
計畫協同主持人
- 2012/5 – 2012/6 桃園市公所委託計畫 101-YS-121  
桃園市公所101年施政滿意度問卷調查分析  
計畫協同主持人
- 2012/11 – 2012/12 桃園市公所委託計畫 101-YS-138  
桃園市公所101年民衆陳情案件分析  
計畫協同主持人
- 2012/8 – 2013/2 資策會計畫  
Mobile Printing 相關研究及創新思考計畫  
計畫協同主持人
- 2012/8 – 2014/7 國科會計畫編號 NSC101-2410-H-011-034-MY2  
如何在風險決策中適切考量不確定性、變異性與相依性  
計畫主持人
- 2014/11 – 2014/12 資策會計畫  
使用者服務體驗商業議案研究案  
計畫協同主持人
- 2014/8 – 2017/7 國科會計畫編號 MOST103-2410-H-011-012-MY3  
應用貝氏網路於癌症移轉之預後、診斷及療效分析  
計畫主持人

2017/8 – 2020/7 國科會計畫編號 MOST106-2410-H-011-004-MY3  
電動載具共享系統之價格誘因機制設計  
計畫主持人

## Research Interests

- Decision Analysis and Risk Analysis
- Behavioral Decision Making and Behavioral Economics
- Health Care Quality and Service Management
- Game Theory and Information Economics
- Applied Statistics

Specifically, my current research interests include the application of game theory to risk-informed regulation, and the use of mathematical model to aggregate experts' uncertainty judgment. Other interests include decision biases and methods for effective risk communication, both to decision makers and to the general public.

In addition to risk analysis and decision analysis, I am also working on identifying the factors that affect patients' safety and medical quality by examining the sentinel events in radiotherapy. I am highly interested in extending my research territory further into the health care arena. For example, in a project related to the mining of medical data, we apply Bayesian networks to prognostic and diagnostic inference for bone metastasis from lung cancer. In service management, I am currently exploring how the service systems are embedded in by social systems, and how the social norms can be used to guide better value co-creation in service business practices.

## Journal Articles

- [1] **Shi-Woei Lin**, and Yi-Ting Liu, and Mohammad Adam Jerusalem (2017), "Bayesian Reliability Analysis of a Products of Probabilities Model for Parallel Systems with Dependent Components," *International Journal of Production Research*, Accepted. **(SCI)**
- [2] **Shi-Woei Lin**, and Mohammad Adam Jerusalem (2017), "Hybrid Method for Assessing Marketable Fashion Designs: Diamond Pairwise Comparison Combined with the Choquet Integral," *Textile Research Journal*, In Print. **(SCI)**
- [3] **Shi-Woei Lin**, and Mohammad Adam Jerusalem (2016), "Integrated MCDM for Evaluating Fashion Design Schemes," *International Journal of Clothing Science and Technology*, 28(6), 880 – 892. **(SCI)**
- [4] Mohammad Adam Jerusalem, **Shi-Woei Lin**, and Dradjad Irianto (2016), "A Comprehensive Model for Process Selection by Considering Offline and Online Quality Control," *Journal of Advanced Mechanical Design, Systems, and Manufacturing*, 10(4), 1 – 12. **(SCI)**

- [5] **Shi-Woei Lin**, and Octavina (2015), “Bayesian Reliability Analysis of Series Systems with Dependent Components,” *Journal of Systems Engineering and Electronics*, Accepted. **(SCI)**
- [6] Liu, Shih-Wen, **Shi-Woei Lin**, and Chien-Wei Wu (2014), “A resubmitted sampling scheme by variables inspection for controlling lot fraction nonconforming,” *International Journal of Production Research*, 52(12), 3744 – 3754. **(SCI, impact factor = 1.323)**
- [7] Lin, Chen-ju and **Shi-Woei Lin** (2014), “Editorial: Institute of Industrial Engineers (IIE) Asian Conference 2013,” *Journal of Quality*, 21(4), 217 – 218. **(EI)**
- [8] Bier, M. Vicki and **Shi-Woei Lin** (2013), “On the Treatment of Uncertainty and Variability in Making Decisions about Risk,” *Risk Analysis*, 33(10), 1899 – 1907. **(SSCI, impact factor = 2.366)**
- [9] Bier, M. Vicki and **Shi-Woei Lin** (2013), “Should the Model for Regulation be Game Theory rather than Decision Theory?,” *Risk Analysis*, 33(2), 281 – 291. **(SSCI, impact factor = 2.366)**
- [10] Lu, Ming-Tsang, **Shi-Woei Lin**, and Gwo-Hshiung Tzeng (2013), “Improving RFID adoption of Taiwan’s healthcare industry based on DEMATEL technique with a hybrid MCDM model,” *Decision Support Systems*, 56(1), 259 – 269. **(SCI, impact factor = 2.201)**
- [11] **Lin, Shi-Woei** (2013), “An Investigation of the Range Sensitivity of Attribute Weight in the Analytic Hierarchy Process,” *Journal of Modelling in Management*, 8(1), 65 – 80. **(ABI)**
- [12] **Lin, Shi-Woei** and Yu-Cheng Liu (2012), “The Effects of Motivations, Trust, and Privacy Concern in Social Networking,” *Service Business*. 6, 411 – 424. **(SSCI, impact factor = 1.000)**
- [13] **Lin, Shi-Woei** and Ming-Tsang Lu (2012), “Characterizing Disagreement and Inconsistency in Experts’ Judgments in the Analytic Hierarchy Process,” *Management Decision*, 50(7), 1252 – 1265. **(SSCI, impact factor = 1.070)** (NSC99-2410-H-155-034-MY2)
- [14] **Lin, Shi-Woei** and Ssu-Wei Huang (2012), “Effects of Overconfidence and Dependence on Aggregated Probability Judgments,” *Journal of Modelling in Management*, 7(1), 6 – 22. **(ABI)**
- [15] **Lin, Shi-Woei** (2011), “Jackknife Evaluation of Aggregated Distributions Judgments Obtained Through Kulback-Leibler Distance,” *Applied Mathematics and Computation*, 218, 469 – 479. **(SCI, impact factor = 1.124)**
- [16] Hung, Wei-Tien, Heng-Yih Liu, and **Shi-Woei Lin** (2011), “Trust formation in E-commerce: The moderating effect of trust propensity,” *Journal of Internet Technology*. 12(6), 911 – 920. **(SCI, impact factor = 0.448)**
- [17] **Lin, Shi-Woei** (2010), “Self-reporting Mechanism for Risk Regulation,” *Journal of Business Research*, 63(5), 528 – 534. **(SSCI, impact factor = 1.293)**
- [18] **Lin, Shi-Woei** and Chih-Hsing Cheng (2009), “The Reliability of Aggregated Probability Judgments Obtained Through Cooke’s Classical Model,” *Journal of Modelling in Management*, 4(2), 149 – 161 **(ABI)**

- [19] **Lin, Shi-Woei** and Kuo-Chuan Wang (2009), “Expert Overconfidence in Probability Interval Estimations,” *Journal of Management & Systems*, 16(2), 181 – 200. **(TSSCI)**
- [20] **Lin, Shi-Woei** and Kuo-Chuan Wang (2009), “Investigation of Variation and Calibration in Experts’ Distribution Judgments,” *Journal of Technology Management*, 14(1), 29 – 54. **(TSSCI)**
- [21] Thomadsen, Bruce and **Shi-Woei Lin** (2008), “Taxonometric Guidance for Developing Quality Assurance,” *International Journal of Radiation Oncology, Biology, Physics*, 71(1), pp. s204–s209. **(SCI, impact factor = 4.592)**
- [22] **Lin, Shi-Woei** and Vicki M. Bier (2008), “Response to Comments on Lin and Bier (2008),” *Reliability Engineering and System Safety*, 93(5), 772 – 773. **(SCI, impact factor = 1.908)**
- [23] **Lin, Shi-Woei** and Vicki M. Bier (2008), “A Study of Expert Overconfidence,” *Reliability Engineering and System Safety*, 93(5) 711 – 721. **(SCI, impact factor = 1.908)**
- [24] **Lin, Shi-Woei** and Hui-Lung Huang (2007), “Agent-based modelling to investigate the disposition effect in financial markets,” *Portuguese Journal of Management Studies*, 12(2), pp. 145 – 164.
- [25] Bruce Thomadsen, **Shi-Woei Lin**, Patrick Laemmrich, Tonia Waller, Arif Cheng, Barrett Caldwell, Rebecca Rankin, and Judith Stitt (2003), “Analysis of Treatment Delivery Errors in Brachytherapy Using Formal Risk Analysis Techniques,” *International Journal of Radiation Oncology, Biology, Physics*, 57(5), pp. 1492–1508. **(SCI, impact factor = 3.756)**
- [26] K. A. Weigel and **S. W. Lin** (2002), “Controlling Inbreeding by Constraining the Average Relationship Between Parents of Young Bulls Entering AI Progeny Test Programs,” *Journal of Dairy Science*, 85(9), pp. 2376–2383. **(SCI, impact factor = 1.917)**
- [27] K. A. Weigel and **S. W. Lin** (2000), “Use of Computerized Mate Selection Programs to Control Inbreeding of Holstein and Jersey Cattle in the Next Generation,” *Journal of Dairy Science*, 83(4), pp. 822–828. **(SCI, impact factor = 1.917)**
- [28] K. A. Weigel and **S. W. Lin** (1999), “Development of International Conversion Equations Using Robust Regression Methodology,” *Journal of Dairy Science*, 82(9), pp. 2023–2029. **(SCI, impact factor = 1.917)**

## Book Chapter

- [1] **Lin, Shi-Woei** (2011), “Generalized Linear Mixed Model,” in *The SAGE Dictionary of Quantitative Management*, L. Moutinho and G. Hutcheson eds., pp. 130 – 132.
- [2] **Lin, Shi-Woei** and Ssu-Wei Huang (2008), “Effects of Overconfidence and Dependence on Aggregated Probability Judgments,” in *Advanced Reliability Modeling III: Global Aspect of Reliability and Maintainability*, S. H. Sheu and T. Dohi eds., pp. 390 – 397.
- [3] Thomadsen, Bruce and **Shi-Woei Lin** (2005), “Taxonomic Guidance For Remedial Actions,” in *Advanced in Patient Safety: From Research to Implementation Vol. II*, Henriksen, Battles, Marks, & Lewin, eds., pp. 75 – 86.

## Technical Report

- [1] Performance Evaluation of Municipal Properties Operate and Transfer (OT) Cases in Taipei City Government. Taipei City Government Technical Report NO. 352, 2006.

## Selected Conference Presentations and Papers

- [1] **Lin, Shi-Woei**, Jhyh-Yun Liou, and Anindita Pamaputri (2015), “Analyzing Blood Donors’ Return Behavior Using Data Mining Techniques,” The 2015 Annual Meeting of the Operations Research Society of Taiwan, Taipei, Oct. 23, 2015.
- [2] **Lin, Shi-Woei**, and Octavina (2015), “Copula-based Bayesian Reliability Analysis,” 2015 International Conference on Quality, Reliability, and Safety Engineering (QR2MSE 2015). Beijing, July 21 - 24, 2015.
- [3] **Lin, Shi-Woei**, Yu-Wei Chen and Mohammad Adam Jerusalem (2014), “Prognosis and Survival Prediction of Lung Cancer by Bayesian Network, ”The 15th Asia Pacific Industrial Engineerings and Management Systems Conference. Jeju Island, Oct. 12 - 15, 2014.
- [4] Mohammad Adam Jerusalem and **Lin, Shi-Woei**(2014), “Evaluating the Economic Performance of ASEAN Countries by Data Envelopment, ”The 15th Asia Pacific Industrial Engineerings and Management Systems Conference. Jeju Island, Oct. 12 - 15, 2014.
- [5] Yu-Wei Chen and **Lin, Shi-Woei** (2014), “Prognosis of Bone Metastasis from Lung Cancer by Bayesian Network, ”Annual Conference of Asia Pacific Decision Science Institute (APDSI 2014). Yokohama, July 28 - 22, 2014.
- [6] **Lin, Shi-Woei** and Hao-Yuan Chan (2013), “Waiting as a Signal of Quality When Multiple Extrinsic Cues are Presented,” in *Proceedings of the Institute of Industrial Engineers Asian Conference 2013*, Yi-Kuei Lin, Yu-Chung Tsao, and Shi-Woei Lin eds., pp. 205 – 210. **(EI indexed)**
- [7] **Lin, Shi-Woei** and Yi-Tseng Lin (2013), “Effect of Relationship Types on the Behaviors of Health Care Professionals,” in *Proceedings of the Institute of Industrial Engineers Asian Conference 2013*, Yi-Kuei Lin, Yu-Chung Tsao, and Shi-Woei Lin eds., pp. 211 – 217. **(EI indexed)**
- [8] **Lin, Shi-Woei** (2012), “Effects of Information Disclosure Format on Risk Perception,” presented in the International Conference on Business and Information, Sapporo, Japan, July 03 – 05, 2012.
- [9] **Lin, Shi-Woei** (2011), “Characterizing Disagreement and Inconsistency in Experts’ Judgments in the Analytic Hierarchy Process,” presented in the 19th Iriennial Conference of the International Federation of Operational Research Societies, Melbourne, Australia, July 10 – 15, 2011.
- [10] **Lin, Shi-Woei**, Chorng-Guang Wu, and Ming-Tsang Lu (2010), “Decomposition of Variation in Experts’ Judgments in the Analytic Hierarchy Process,” presented in the 40th International Conference on Computers and Industrial Engineering, Awaji Island, Japan, July 25 – 28, 2010. **(EI indexed)**

- [11] **Lin, Shi-Woei** and Ming-Tsang Lu (2009), “Investigation of Range Sensitivity of Attribute Weight in Analytic Hierarchy Process,” presented in the Asia Pacific Industrial Engineering & Management Systems Conference (APIEMS 2009), Kitakyushu, Japan, December 14 – 16, 2009.

### **Certification**

American Society for Quality (ASQ) Certified Quality Engineer (2003 – 2006)

American Society for Quality (ASQ) Certified Reliability Engineer (2004 – 2007)

### **Professional Affiliations**

Society for Risk Analysis (SRA)

Taiwan Society for Risk Analysis (TSRA)

Operations Research Society of Taiwan (ORSTW)

Decision Science Institute (DSI)

### **References**

Prof. Vicki M. Bier  
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Prof. Bruce R. Thomadsen  
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Madison, WI 53706-1532  
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