### **CURRICULUM VITAE**

## Jeffrey S. Pai, Ph.D., ASA, ACIA

#### **OFFICE ADDRESS:**

Warren Centre for Actuarial Studies and Research, Asper School of Business, University of Manitoba, Room 640, Drake Centre, 181 Freedman Crescent, Winnipeg, MB R3T 5V4, Canada

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#### **EDUCATION:**

1990-1994: Ph.D. in Statistics, University of Connecticut, CT, USA, Dissertation Title:

"Bayesian Inference of ARIMA Processes by Sampling Based Methods"

1988-1990: Master in Actuarial Science, <u>University of Connecticut</u>, CT, USA

1984-1986: Military Service, Taiwan, Republic of China

1980-1984 Bachelor of Commerce, <u>Feng Chia University</u>, Taichung, Taiwan, ROC

#### **PERSONAL:**

Citizenship: Canadian

Birthday: August 1, 1960

Birth Place: New Taipei City, Taiwan, Republic of China

Marital Status: Married with one son

#### **PROFESSION RECOGNITIONS:**

2013 **ISI Elected Member:** International Statistical Institute

2011 ACIA: Associate, Canadian Institute of Actuaries, Canada

2005 **P.Stat.**: Professional Statistician, Statistical Society of Canada, Canada

1990 **ASA**: Associate, Society of Actuaries

# **PROFESSIONAL POSITIONS:**

2008-Present	Full Professor, Warren Centre for Actuarial Studies and Research, Asper School of Business, University of Manitoba, Canada				
2003-Present	<b>L.A.H. Warren Professo</b> r, Warren Centre for Actuarial Studies and Research, Asper School of Business, University of Manitoba, Canada				
2012-Present	Adjunct Professor, Department of Statistics, Faculty of Science, University of Manitoba, Canada				
2016 Jan-Mar	Visiting Professor, Department of Statistics and Probability, University of California, Santa Barbara, USA				
2015, 2016	Visiting Professor, Department of Risk Management and Insurance, National Chengchi University, Taiwan, ROC				
2009-2015	<b>Director</b> , Warren Centre for Actuarial Studies and Research, Asper School of Business, University of Manitoba, Canada				
2003-2013	Consultant, Sales & Marketing, IC Group Inc., USA				
2008-2010	Adjunct Professor, Department of Statistics and Actuarial Science, Feng Chia University, Taiwan, ROC				
2000-2004	Instructor, New England Actuarial Seminars, USA				
2001-2007	Consultant, DFA Capital Management Inc., White Plains, USA				
2000 Summer	Actuarial Consultant, Group Financial Management, the Great-West Life Assurance Company, Canada				
2000-2001	Visiting Professor, Joint Doctoral Program in Business Administration in South East Asia, Bangkok Ph.D. Centre, Thailand				
1999 Jan-Jul	Visiting Professor, Department of Finance, National Taiwan University, ROC				
1996-2007	Assistant Professor & Associate Professor, Warren Centre for Actuarial Studies and Research, Asper School of Business, University of Manitoba, Canada, Granted tenure on July 1, 2000				
1994-1996	Assistant Professor, Institute of Statistics and Econometrics, University of Basel, Switzerland, Research on "Bayesian Sampling Environment & Language" supported by the Swiss National Fund				
1991-1994	Research Assistant, Department of Statistics, University of Connecticut, USA, Research on "Modeling Time Series in Bayesian Framework Using Re-sampling Methods" supported by U.S. Army				
1992 Summer	Visiting Researcher, Department of Mathematical Sciences, IBM T.J. Watson Research Center, Yorktown Heights, USA				
1990-1992	Teaching Assistant, Department of Statistics, University of Connecticut, USA				
1988-1991	Lecturer, Department of Mathematics, University of Connecticut, USA				

# **RESEARCH GRANTS AND AWARDS:**

2016	CAS Best Paper Award, "Insurance Premium Calculation Using Credibility Analysis: An Example from Livestock Mortality Insurance". The Prize is awarded by the Casualty Actuarial Society (CAS) for the best paper of interest to casualty actuaries published by the American Risk and Insurance Association (ARIA).			
2016 Mar-Aug	Ministry of Science and Technology Grants, Taiwan, ROC			
2015 Feb-Jul	Ministry of Science and Technology Grants, Taiwan, ROC			
2011-2012	Tri-Council Application Development Award, Asper School of Business University of Manitoba, Canada			
2011	Outstanding Paper Award, Literati Network Awards for Excellence, Emerald Journal Publishing Group, "Factors Affecting Crop Insurance Purchases in China: The Inner Mongolia Region"			
2010	SSHRC Bridge Funding, University of Manitoba, Canada			
2009-2010	"Research on Livestock Disease Insurance and Implications for modeling", Agriculture and Agri Food Canada (co-investigator), Canada			
2008-2009	Tri-Council Application Development Award, Asper School of Business, University of Manitoba, Canada			
2008-2010	"Effects of Obesity on Mortality and Morbidity" (joint), Society of Actuaries, USA			
2007-2009	"Analysis of Mutual Reinsurance Pooling for Crop Insurance in Canada", Advancing Canadian Agriculture and Agri-Food (ACAAF) Grant (co-investigator), Manitoba Rural Adaptation Council Inc., Canada			
2007-2010	"Application of crop insurance to alleviate poverty and promote sustainable agricultural production in China", Development Partnerships in Higher Education Grant (joint), Department of International Development, UK			
2007-2009	"A Study of Canada-China Food Trade: Behind the Borders Barriers", Asia Pacific Foundation of Canada (Associated Research), Canada			
2005-2006	Natural Sciences and Engineering Research Council Grants, Canada			
2004	Featured as a " <b>PopularProfs</b> " in the 2004 MACLEAN's Guide to Canadian Universities			
2002	Students' <b>Teacher Recognition Awards</b> , University Teaching Services, University of Manitoba, Canada			
2001-2005	Natural Sciences and Engineering Research Council Grants, Canada			
1997-2001	Natural Sciences and Engineering Research Council Grants, Canada			
1998-1999	Society of Actuaries Research Grant (joint), USA			
1999	National Science Research Council Grant, Taiwan, ROC			

Faculty Research Grants, University of Manitoba, Canada				
Faculty of Management Research Grants, University of Manitoba, Canada				
Faculty of Management Travel Grants, University of Manitoba, Canada				
University Research Grant Program Award, University of Manitoba, Canada				
Swiss National Fund Research Grants, Switzerland				
Graduate School Travel Grants, University of Connecticut, USA				
Graduate School Summer Research Supports, University of Connecticut, USA				
Member of the Honor Society of Phi Kappa Phi, USA				
Gottfried E. Noether Award for excellent performance in mathematical statistics, University of Connecticut, USA				
Graduate School Fellowship, University of Connecticut, USA				
Member of Pi Mu Epsilon National Honorary Mathematics Society, USA				
Chairperson of the Students Association of the Department of Statistics, Feng Chia University				

#### **RESEARCH PUBLICATIONS:**

- Pai, J., Ravishanker, N., 2019, livestock Mortality Catastrophe Insurance using Fatal Shock Process, submitted for publication
- Zhou, R., Li, J., Pai, J., 2019, Pricing Temperature Derivatives with a Filtered Historical Simulation Approach, submitted for publication
- Zhou, R., Li, J., Pai, J., 2018, Evaluating Effectiveness of Rainfall Index Insurance, *Agricultural Financial Review*, Vol. 78 Issue: 5, pp.611-625, https://doi.org/10.1108/AFR-11-2017-0102
- Pai, J., Ravishanker, N., 2018, Stochastic Models for Pricing Weather Derivatives Using Constant Risk Premium, Journal of the Iranian Statistical Society, 17 (2), pp. 37-55
- Porth, L., Milton, B., Pai, J., 2016, Reducing Risk through Pooling and Selective Reinsurance Using Simulated Annealing: An Example from Crop Insurance, The Geneva Risk and Insurance Review, 41(2), 163-191 (doi:10.1057/s10713-016-0013-0).
- Zhou, R., Li, J., Pai, J., 2016, Hedging Crop Yield with Exchange-Traded Weather Derivative, *Agricultural Financial Review*, 76(1), 172-186 (DOI http://dx.doi.org/10.1108/AFR-11-2015-0045).
- Pai, J., Ravishanker, N., 2015, Fast Approximate Likelihood Evaluation for Stable VARFIMA Processes, *Statistics and Probability Letters*, 103, 160-168 (doi:10.1016/j.spl.2015.04.001).
- Lin, J., Boyd, M., Pai, J., Porth, L., Zhang, Q., Wang, K., 2015, Factors Affecting Farmers' Willingness to Purchase Weather Index Insurance in the Hainan Province of China. *Agricultural Financial Review*, 75(1), 103-113 (doi:10.1108/AFR-02-2015-0007).

- Pai, J., Boyd, M., Porth, L., 2015, Insurance Premium Calculation Using Credibility Analysis: An Example from Livestock Mortality Insurance. *Journal of Risk and Insurance*, 82(2), 341-357 (DOI: 10.1111/jori.12024).
- Porth, L., Pai, J., Boyd, M., 2015, A Portfolio Optimization Approach Using Combinatorics with Generic Algorithm for Developing a Reinsurance Model. *Journal of Risk and Insurance*, 82(3), 687-713 (doi: 10.1111/jori.12037).
- Pai, J., Zheng, S.X., 2014, Misleading Results in Regression Tests about Signaling and the Valuation of IPO. *Quality Technology and Quantitative Management*, 11(2), 223-228.
- Boyd, M., Pai, J., Porth, L., 2013, Livestock Mortality Insurance: Development and Challengers. *Agricultural Financial Review*, 73(2), 233-244.
- Boyd, M., Porth, L., Pai, J., 2012, Crop Insurance in Canada: Background and Operation. *The Report of China's Agricultural Insurance Development*, 283-292.
- Boyd, M., Pai, J., Zhang, Q., Wang, K., 2011, Factors Affecting Crop Insurance Purchases in China: The Inner Mongolia Region, *China Agricultural Economic Review*, 3(4), 441-450 (Outstanding Paper Award for 2011 in China Agricultural Economic Review, presented by the Literati Network Awards for Excellence, Emerald Journal Publishing Group).
- Pai, J., Ravishanker, N., Silva, J., 2011, Application of Stochastic Modelling for Pricing Weather Derivatives, *ITM n-Ach*, Vol. 5, No. 1, 1-12.
- Li, M., Boyd, M., Pai, J., 2011, Factors Affecting Consumer Perceptions of Brand Name food in Japan: An Ordered Probit Analysis. *The Business Review Cambridge*, Vol. 18 (1).
- Boyd, M., Pai, J., Zhang, Q., Wang, K., 2011, Crop Insurance Principles and Implications for China. *Journal of Human and Ecological Risk Assessment*, 554-565.
- Behan, D., Cox, S., Lin, Y., Pai, J. Pedersen, H., Yi, M., 2011, *Obesity and its Relation to Mortality and Morbidity Costs*. Society of Actuaries.
- Pai, J., Ravishanker, N., 2010, Fast Bayesian Estimation for VARFIMA Processes with Stable Errors. *Journal of Statistical Theory and Practice*, Vol. 4, No. 4, 663-677.
- Pai, J., Boyd, M., 2010, A Decision framework for Optimal Crop Reinsurance Selection, *China Agricultural Economic Review*, 2(2), 148-166.
- Pai, J., 2010, Discussion on "Predicting Losses of Residential Structures in the State of Florida by the Public Hurricane Loss Evaluation Models" by S. Hamid, B. M. G. Kibria, S. Gulati, M. Powell, B. Annane, S. Cocke, J.-P. Pinelli, and S.-C. Chen, *Statistical Methodology*, 7, 587-591
- Pai, J., Ravishanker, N., 2009, A Multivariate Preconditioned Conjugate Gradient Approach for Maximum Likelihood Estimation in Vector Long Memory Processes. *Statistics and Probability Letters*, 79(9), 1282-1289.
- Pai, J., Ravishanker, N., 2009, Maximum Likelihood Estimation in Vector Long Memory Processes via EM Algorithm. *Computational Statistics and Data Analysis*, 53 (12), 4133-4142.
- Boyd, M., Pai, J., 2009, *A Study of Livestock Disease Insurance and Implications for Modeling*, Agriculture and Agrifood Canada (AAFC).
- Porth, L., Pai, J., Boyd, M., 2009, *Analysis of Mutual Reinsurance Pooling for Crop Insurance in Canada*, MRAC.
- Boyd, M., Pai, J., Zhang, Q., Wang, K., 2009, Concepts of Crop Insurance and Implications for Improving Crop Insurance in China, in: (Eds). Chonggu Huang and J.B. Weiner. *Advances*

- In Intelligent System Research: New Perspectives on Risk Analysis and Crisis Response, Atlantis Press, 269-277.
- Wang, X., Pai, J., Shand, K., 2007, A Semi-Markov Model of Disease in Insured Dogs. *Applied Stochastic Models in Business and Industry*, 23 (5), 429-437.
- Boyd, M., Pai, J., Yi, X., Tuo, G., Zhang, Q., 2007, A Study of Crop Insurance in Canada (in Chinese 加拿大农业保险的经历和经验). *China Rural Economy*, 2, 74-78.
- Pai, J., Wang, X., and Shand, K., 2006, Compound Poisson Model with Covariates: A Case Study on Pet Insurance. *North American Actuarial Journal*, 10 (4), 219-234.
- Boyd, M., Pai, J., 2006, The Role of Crop Insurance for Agricultural and Rural Stabilization: Experience from Canada, Proceeding for International Conference on Challenges Facing Chinese Agriculture and the West Development Strategy.
- Pai, J., Wang, X., Shand, K., 2005, A Preliminary Analysis of Pet Insurance Data. *Actuarial Research Clearing House*, Society of Actuaries, Schaumburg.
- Polasek, W., Pai, J., 2004, CPO Plots for ARMA Model Selection. *Central European Journal of Operations Research*, 12, 211-219.
- Cheng, Y., Pai, J., 2003, The *n*th Stop-Loss Transform Order of Ruin Probability. *Insurance: Mathematics & Economics*, 32, 51-60.
- Pai, J., Sun, G., 2001, Risk Premiums and Their Applications. *Actuarial Research Clearinghouse*, Society of Actuaries, Schaumburg.
- Pai, J., 2001, Discussion of the paper "Multivariate Analysis of Pension Plan Mortality Data" by Vinsonhaler, C., Ravishanker, N., Vadiveloo, J., and Rasoannaivo, G., *North American Actuarial Journal*, Volume 45 No. 2, 126-138.
- Cheng, Y., Pai, J., 1999, The Maintenance Properties of *n*th Stop-Loss Order. Joint day Proceedings Volume of the XXXth International ASTIN Colloquium/9th International AFIR Colloquium, 95-118, Tokyo, Japan.
- Pai, J., and Pedersen, H., 1999, Threshold Models of the Term Structure of Interest Rate. Joint day Proceedings Volume of the XXXth International ASTIN Colloquium/9th International AFIR Colloquium, 387-400, Tokyo, Japan
- Pai, J., Ravishanker, N., 1998, Bayesian Analysis Autoregressive Fractionally Integrated Moving Average Processes. *Journal of Time Series Analysis*, 19, 99-112.
- Pai, J., Polasek, W., Kozumi, H., 1998, Irregularly Spaced AR (ISAR) Models, In C. Hayashi, K. Yajima, H. H. Bock, N. Ohsumi, Y. Tanaka, & Y. Baba (Eds.), *Data Science, Classification, and Related Methods* (255–260). Tokyo: Springer-Verlag.
- Pai, J., Polasek, W., Ren, L., 1998, Autoregressive Models and Moving Average Models with Hyperbolic Innovation, WWZ-Discussion Papers, Wirtschaftswissenschaftliches Zentrum der Universitaet Basel, Switzerland.
- Pai, J., 1997, Bayesian Analysis of Compound Loss Distributions. *Journal of Econometrics*, 79, 129-146.
- Pai, J., 1997, A One-step Optimization Procedure for ARFIMA Processes. In R. Klar & O. Opitz (Eds), *Data Analysis and Knowledge Organization* (171-177), Berlin: Springer-Verlag.
- Kuo, L., Lee, J., Cheng, P., Pai, J., 1997, Bayes Inference of Technological Substitution Data with Data Based Transformation. *Journal of forecasting*, 16, 65-82.
- Pai, J., 1997, Generating Random variates with a Given Force of Mortality and Finding a Suitable Force of Mortality by Theoretical Quantile Quantile plots. *Actuarial Research Clearing House*, 1, 293-312, Society of Actuaries, Schaumburg.

- Jin, S., Pai, J., Kozumi, H., Polasek, W., 1996, *Bayesian Sampling Environment and Language*, U. of Basel, Switzerland.
- Pai, J., Ravishanker, N., 1996, The Exact Likelihood Function for an ARFIMA Model in Closed Forms. In H. H. Bock and W. Polasek (Eds), Data Analysis and Information Systems (323-331), Heidelberg: Springer-Verlag.
- Pai, J., Ravishanker, N., 1998, Bayesian Modeling of ARFIMA Processes by Markov Chain Monte Carlo Methods, *Journal of Forecasting*, 15(2), 63-82
- Wu, L., Pai, J., Hosking, J., 1996, An Algorithm for Estimating Parameters of State-Space Models, *Statistics and Probability Letters*, 28, 99-106
- Marriot, J, Ravishanker, N., Gelfand, A., Pai, J., 1996, Bayesian Analysis for ARMA Processes: Complete Sampling Based Inference Under Exact Likelihoods. In D. Berry, K. Chaloner, & J. Geweke (Eds), *Bayesian Statistics and Econometrics: Essays in honor of Arnold Zellner* (241-254). New York: John Wiley
- Pai, J., 1995, Discussion of the paper "Simulating Random Variates from Makeham's Distribution and from Others with Exact or Nearly Log-Concave Densities" by D Scollnik, *Transactions of the Society of Actuaries*, XLVII, 444-447.
- Pai, J., Polasek, W., 1995, Irregularly Spaced AR and ARCH (ISAR-ARCH) Models, Proceedings of First International Conference on High Frequency Data in Finance, V1, Ib, Zurich.
- Pai, J., Ravishanker, N., Gelfand, A., 1994, Bayesian Analysis of Concurrent Time Series with Application to Regional IBM Revenue Data, *Journal of Forecasting*, 13, 463-479.
- Pai, J., Ravishanker, N., 1994, Bayesian Analysis of Fractional Differenced ARIMA Processes Using Gibbs Sampling, Proceedings of the Section on Bayesian Statistical Science, 69-74, American Statistical Association.

#### **TEACHING EXPERIENCE:**

2010-2011

2006-Present	University of Manitoba, Canada ACT 2120 "Interest Theory" ACT 3130 "Actuarial Models I" ACT 3230 "Actuarial Models II" ACT 3530 "Actuarial Models IV" ACT 4140 "Actuarial Modeling I" ACT 4240 "Actuarial Modeling II" ACT 4340 "Actuarial Modeling III" IDM 4050 "Readings in Management – Time Series & Regression Analysis for Management" PHDM 7120: "Management Research Project I" (PhD) PHDM 7130: "Management Research Project II" (PhD)
2016	"PSTAT 171: Mathematics of Fixed Income Markets" at University of California, Santa Barbara, USA
2016	"Actuarial Practices II", National Chengchi University, Taiwan, ROC
2015	"Actuarial Practices I", National Chengchi University, Taiwan, ROC

"Actuarial Statistical Models" at Feng Chia University, Taichung, ROC

1996-2006	University of Manitoba, Canada 10.221 "Introduction to Risk Management" 10.313 "Actuarial Models I" 10.323 "Actuarial Models II" 10.400 "Term Structure of Interest" 10.447 "Mathematical Risk Theory" 10.448(1) "Survival Models and Their Estimations" 10.705 "Readings in Quantitative Methods" (Master) 10.754 "Stochastic Simulations and Their Applications in Actuarial Science" (Master) 10.756 "Mathematical Risk Theory" (Master) 27.706 "Readings in Business Administration" (Master) 98.407 "Management Research I"			
2006	"Loss Models and Credibility Theory" at Sun Yat-sen University, Guangzhou, China			
2006	"Estimation of Interest Rate Model" at Fudan University, Shanghai, China (Shanghai - Hong Kong Insurance Forum)			
2004	"Interest Rate Modeling" at University of Iowa, Iowa City, USA (Society of Actuaries Professional Development credits)			
2000-2004	SOA/CAS <i>Joint Exam 4 Seminars</i> at New England Actuarial Seminars, USA			
2003-2004	"Quantitative Methods 1", Certified General Accountants (CGA) of Manitoba, Canada			
2000-2001	"Research in Finance", Joint Doctoral Program in Business Administration in South East Asia, Thailand			
1999	"Stochastic Term Structure Models" seminar at Peking University, China			
1999	"Stochastic Term Structure Models" seminar at Nankai University, China			
1998	"Stochastic Simulations and Their Applications in Actuarial Science" seminar at People's University of China, China			
1994-1996	"Statistics Methods" and "Bayesian Inference" at University of Basel, Switzerland			
1988-1992	University of Connecticut, USA STAT110V "Elementary concepts of Statistics" MATH284Q "Probability and Statistics problems" MATH105Q "Mathematics for Business and Economics" MATH106Q "Calculus for Business and Economics"			

#### **CONFERENCES AND INVITED TALKS:**

- Evaluating Hedging Effectiveness of Weather Derivatives Perspectives from Crop Insurance Provider, June, 2017, the fifth International Agricultural Risk, Finance, and Insurance, Paris, France
- Pricing Temperature Derivatives and Hedging Crop Yield, February, 2016, University of California, Santa Barbara, USA
- Hedging Crop Yield with Exchange-Traded Weather Derivatives, December, 2015, National Chengchi University, Taiwan
- Computing Premium for Livestock Insurance, June, 2015, International Agricultural Risk, Finance, and Insurance Conference, Washington DC, USA.
- Risk Management and Weather Derivatives, April, 2015, National Chengchi University, Taiwan
- Risk Management and Insurance, December, 2014, Ningbo University, China
- Weather Risk Management, December, 2013, Ming Chuan University, Taiwan
- An Application to Actuarial Pricing of Weather Derivatives, November, 2012, Taiwan Risk and Insurance Association Annual meeting, Taiwan
- Valuation of Weather Derivatives, November, 2012, Department of Finance, National Central University, Taiwan
- The 47th Actuarial Research Conference, Organization Committee Chair, Canada
- An Optimization Model: Pooling & Reinsurance for an Insurance Portfolio, May, 2012, National Chengchi University, Taiwan
- Role of Risk and Insurance in Chinese Agriculture, Session organizer and Chair, June, 2010, Chinese Economists Society annual conference, Xiamen, China
- Perceptions of Crop Insurance: A survey of Western Canadian Crop Producers, June, 2010, International Conference on Agricultural Risk and Food Security, Beijing, China
- Crop Risk Evaluation and Remaking, Chair, June, 2010, International Conference on Agricultural Risk and Food Security, Beijing, China
- Decisions Regarding Crop Reinsurance Fund Allocation, June, 2009, Chinese Academy of Agricultural Sciences, China
- Risk and Insurance, Session organizer and Chair, June, 2009, Chinese Economists Society annual conference, Nanning, China
- Selection of Crop Reinsurance Funds, June, 2009, Chinese Economists Society annual conference, Nanning, China
- Analysis of Loss Coverage Ratios with Applications in Crop Insurance, December, 2008, Feng Chia University, Taiwan
- Optimization Crop Reinsurance Allocation; for Certain Loss Distributions, December, 2008 Feng Chia University, Taiwan
- Bayesian Analysis of Compound Loss Distributions: An Application in Reinsurance Treaties,
   December, 2008 Feng Chia University, Taiwan
- Compound Poisson Model with Covariates: An Empirical Study on Pet Insurance, December, 2008, Feng Chia University, Taiwan
- Crop Insurance Premium & Government Subsidies, July, 2008, DelPHE ACIC Workshop, Huhhot, China

- Crop Reinsurance in USA and Canada, April, 2008, Chinese Academy of Agricultural Sciences, China
- Temperature Derivatives Using Forecasts of Vector ARFIMA Processes, December, 2007, Simon Fraser University, Canada
- Crop Insurance and Reinsurance, February, 2007, Chinese Academy of Agricultural Sciences, China
- Interest Rate Modeling in Finance and Insurance, November 2006, University of Hong Kong, China
- Interest Rate and Bond Markets, June, 2006, Ningbo University, Ningbo, China
- Do You Really Want to be an Actuary? 2006, Sun Yat-sen University, Guangzhou, China
- Premium Calculation and Reinsurance, May, 2006, Agricultural Research Conference, Haikou City, China
- An Empirical Study on Yield Curve, October, 2004, Renmin University, China
- An Empirical Study on Pet Insurance, August, 2004, The Thirty-Ninth Actuarial Research Conference, Iowa City, USA
- Exact Maximum Likelihood Estimation for VARFIMA Processes via the EM Algorithm. April, 2004, the Fifth Biennial International Conference on Statistics, Probability and Related Areas, Athens, Georgia, USA
- Stop-Loss Premiums and Ruin Probability. February, 2001, University of Connecticut, Storrs, CT, USA
- A Parametric Study on the Healthcare Pooling Charges. August, 2000, the Great-West Life Assurance Company, Winnipeg, Canada
- Threshold Models of the Term Structure of Interest Rate. August, 1999, the 9<sup>th</sup> International AFIR Colloquium, Tokyo, Japan
- The Maintenance Properties of *n*th Stop-loss Order. August, 1999, the 30<sup>th</sup> International ASTIN Colloquium, Tokyo, Japan
- Chair the working session of "Risk Management". August, 1999, the 9<sup>th</sup> International AFIR Colloquium, Tokyo, Japan
- Stop-Loss Transforms and Ruin Probability. May, 1999, Peking University, China
- Constructing Term Structure Models with a Regime Switching Component. July, 1998, Second International Congress on "Insurance: Mathematics & Economics", Lausanne, Switzerland
- Markov Switching Model and the BASEL Package. July, 1988, University of Basel, Basel, Switzerland
- Markov Chain Monte Carlo Methods and Their Applications in Actuarial Science. June, 1998, People's University of China, Beijing, China
- The Bayesian Approach to Regime Switching Models of the Short Interest Rate: Theory, Calibration, and Implementation. May, 1998, National Taiwan University, Taiwan
- Generating Random Variates with a Given Force of Mortality and Finding a Suitable Force of Mortality by Theoretical Quantile - Quantile plots. August, 1996, The Thirty-First Actuarial Research Conference, Muncie, Indiana, USA
- Bayesian Analysis of Non-negative AR(p) Models via the Gibbs Sampler, August, 1996, The Joint Statistical Meetings, Chicago, Illinois, USA
- Irregularly Spaced AR-ARCH Models in Time Series. March, 1995, the First International Conference on High Frequency Data in Finance, Zurich, Switzerland

- The Exact Likelihood Function for an ARFIMA Model in Closed Forms. March, 1995, the 19th Annual Conference of the GfKl, Basel, Switzerland.
- Bayesian Analysis in Time series. December 1994, Feng Chia University, Taiwan
- Bayesian Analysis of Long Memory in US GNP using ARFIMA Models. October 1994, annual meeting of The Swiss Econometricians, Zurich, Switzerland
- Bayesian Analysis of ARFIMA Processes. April, 1994, Eighth New England Statistics Symposium, Kingston, RI, USA
- Bayesian Inference for ARIMA Processes by Sampling Based Methods. April 1994, IBM T.J. Watson Research Center, Yorktown Heights, NY, USA
- Bayesian Analysis of Concurrent Time Series with Application to Regional IBM Revenue Data. August 1993, Joint Statistical Meetings, San Francisco, CA, USA
- Bayesian Analysis of Regional IBM Revenue Using Sampling Based Methods. April, 1993, Seventh New England Statistics Symposium, Storrs, CT, USA
- Bayesian Inference for ARMA Processes by Re-sampling. Invited talk at the special contributed paper session on Bayesian Modeling. August, 1992, Joint Statistical Meetings, Boston, MA, USA

#### **STUDY MANUAL PUBLICATIONS:**

- CAS MAS-II Study Manual (2018), ACTEX Learning, "CAS MAS-II Study Manual and Flashcards"
- SOA STAM GOAL (2018), SRBooks, Inc., Guided Online Actuarial Learning Program SOA **Examination Short-Term Actuarial Mathematics**
- SOA STAM GOAL (2018), SRBooks, Inc., Guided Online Actuarial Learning Program CAS **Examination Modern Actuarial Statistics II**
- SOA Study Aids (2007), S.H. Cox and J.S. Pai, Stipes Publishing L.L.C., Champaign, Illinois Examination MLC: Student's Guide to Life Contingencies
  - Examination C Volume 1: Student's Guide to Loss Models
  - Examination C Volume 2: Student's Guide to Credibility and Simulation
- SOA Study Aids (2006), S.H. Cox and J.S. Pai, Stipes Publishing L.L.C., Champaign, Illinois
  - Examination M Volume 1: Student's Guide to Life Contingencies
  - Examination M Volume 2: Student's Guide to Loss Models
  - Examination C Volume 1: Student's Guide to Construction of Loss Models
  - Examination C Volume 2: Student's Guide to Credibility Theory
- SOA/CAS Study Aids (2003), S.H. Cox and J.S. Pai, Stipes Publishing L.L.C., Champaign
  - Course 4/Part 4 Volume 1: Student's Guide to Regression Models
  - Course 4/Part 4 Volume 2: Student's Guide to Time Series Models
  - Course 4/Part 4 Volume 3: Student's Guide to Survival Models and Simulations
  - Course 4/Part 4 Volume 4: Student's Guide to Credibility Theory
- SOA/CAS Study Aids (2002), S.H. Cox and J.S. Pai, Stipes Publishing L.L.C., Champaign
  - Course 4/Part 4 V 1&2: Student's Guide to Loss Models, Credibility, and Simulations & Student's Guide to Regression Models, Time Series Models, and Survival Models

  - Course 3//Part 3 Volume 1&2: Student's Guide to Actuarial Mathematics &
  - Student's Guide to Loss Models, Probability Models, and Simulation

#### **COMMUNITY AND OTHER SERVICES:**

2015-Present	Center for Actuarial Excellence (CAE) Appeals Board, Society of Actuaries (SOA)					
2015-Present	Academic Research Subcommittee, Canadian Institute of Actuaries (CIA)					
2016-Present	Center for Actuarial Excellence (CAE) Grants Committee, Society of					
	Actuaries (SOA)					
2013-Present	SOA Examination P Independent Reviewer, Society of Actuaries					
2005-Present	Editorial Board, Journal of Economics and Management					
2005-Present	Editorial Board, International Journal of Information and Management					
2002-Present	Advisory Committee, Indochina Chinese Association of Manitoba, Canada					
1999-Present	Advisory Committee, Manitoba Taiwan Sinorama Association Centre,					
	Canada					
2012-2014	Center for Actuarial Excellence Grants Committee, Society of Actuaries					
2014-2016	Selection Committee, J.C. Hickman Scholar Doctoral Stipend Program,					
	Society of Actuaries					
2004-2005	Editor, Expanding Horizons, Society of Actuaries, USA					
2005-2006	Secretary/Treasurer, Education & Research Sections, Society of Actuaries,					
	USA					
2004-2007	Committee Member, Education & Research Sections, Society of Actuaries,					
	USA					
2000-2003	Principal, Manitoba Pei-Ing Chinese School, Winnipeg, Canada					
2000-2002	Coordinator, Chinese Summer Camp, Winnipeg, Canada					
2000	Columnist, Mandarin World View, Winnipeg, Canada					

### **PROFESSIONAL AFFILIATIONS:**

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Membershii	o American	Statistical A	Association,	American	Risk and Insurance

Association, Chinese Canadian Academic and Professional Society of Canada, International Chinese Statistical Association, International Statistic Institute, Society of Actuaries, Statistical Society of Canada

Referee Activities Applied Stochastic Models in Business and Industry, Asia-Pacific Journal

of Risk and Insurance, Computational Statistics, Communications in Statistics, Insurance: Mathematics and Economics, Journal of Business and

Economics Statistics, Journal of Forecasting, Journal of Risk and

Insurance, NSERC Discovery Grant External Referee, Society of Actuaries

#### **REFERENCES:**

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