CURRICULUM VITAE

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EDUCATION:

1995	M.Math. Actuarial Science University of Waterloo
1993	Ph.D. Statistics and Applied Probability University of Alberta
1982	B.Sc. Mathematics Inner Mongolia University(China)

PROFESSIONAL DESIGNATIONS AND HONOURS:

2014	Honorary Fellow of the Institute and Faculty of Actuaries
2014	Corresponding Member of the Swiss Association of Actuaries
2013	Outstanding Researcher Award, The University of Hong Kong
2004	Elected member of the International Statistical Institute
1999	Outstanding Teaching Award, Faculty of Social Sciences, HKU
1994	Associate of the Society of Actuaries.

PROFESSIONAL EXPERIENCE:

Nov. 2006 -	Professor Department of Statistics and Actuarial Science The University of Hong Kong
July 2007 -	Zijiang Professor (honorary) School of Finance and Statistics East China Normal University Shanghai, China
April 2002 - Oct. 2006	Associate Professor Department of Statistics and Actuarial Science The University of Hong Kong
Sept. 1996 - March 2002	Assistant Professor Department of Statistics and Actuarial Science The University of Hong Kong

Sept. 1995 - Aug. 1996	Postdoctoral Fellow Department of Statistics and Actuarial Science University of Waterloo
Sept. 1993 - Aug. 1994	Postdoctoral Fellow Department of Mechanical Engineering Ecole Polytechnique de Montreal
Jan. 1982 - Aug. 1988	Assistant Lecturer and Lecturer Department of Mathematics Inner Mongolia University China

RESEARCH

PUBLICATIONS

Books edited:

1. S. N. Cohen, D. Madan, T. K. Siu and H. Yang, *Stochastic processes, filtering and control: A festschrift in honour of Robert J. Elliott*, World Scientific Publisher, Singapore, 2012.

2. T. L. Lai, H. Yang and S. P. Yung, *Probability, Finance and Insurance*, World Scientific Publisher, Singapore, 2004.

Refereed International Journal Papers:

1. H.U. Gerber, E. S. W. Shiu and H. Yang, "Geometric stopping of a random walk and its applications to valuing equity-linked death benefits" *Insurance: Mathematics and Economics*, to appear, .

2. Z. Zhang, E. C. K. Cheung and H. Yang. "Levy insurance risk process with Poissonian taxation", *Scandinavian Actuarial Journal*, to appear.

3. K. W. Chau, S.C.P. Yam and H. Yang, "Modern Fourier-Cosine Method for Gerber-Shiu Function", *Insurance: Mathematics and Economics*, accepted.

4. K. W. Chau, S.C.P. Yam and H. Yang, "Modern Fourier-Cosine Method for Ruin Probabilities", *Journal of Computational and Applied Mathematics*, accepted.

5. C.C. Siu, S.C.P. Yam and H. Yang, "Valuing Equity-Linked Death Benefits in a Regime-Switching Framework", *ASTIN Bulletin*, accepted.

6. Z. Zhang and H. Yang. "Nonparametric estimation for ruin probability in a Levy risk model under low-frequency observation", *Insurance: Mathematics and Economics*, Vol. 59, 168 - 177, Nov. 2014.

7. Z. Jin, H. Yang and G. Yin, "A Numerical Approach to Optimal Dividend Policies with Capital Injections and Transaction Costs", *Acta Mathematicae Applicatae Sinica*, accepted.

8. Zhimin Zhang, Hailiang Yang and Hu Yang, "On a nonparametric estimator for the finite time survival probability with zero initial surplus", *Acta Mathematicae Applicatae Sinica*, accepted.

9. A. Bensoussan, C.C. Siu, S.C.P. Yam and H. Yang, "A Nonzero-Sum Stochastic Differential Investment and Reinsurance Game With Mixed Regime Switching", *Automatica*, Vol. 50, 2025 - 2037, August, 2014.

10. D. Yao, H. Yang and R. Wang, "Optimal risk and dividend control problem with fixed costs and salvage value: Variance premium principle", *Economic Modelling*, Vol. 37, 53-64, Feb. 2014.

11. Y. Lin and H. Yang, "Discrete-time BSDEs with random terminal horizon", *Stochastic Analysis and Applications*, Vol. 32, 110-127, Jan. 2014.

12. J. Fu, J. Wei and H. Yang, "Portfolio optimization in a regime-switching market with derivatives", *European Journal of Operational Research*, Vol. 233, 184-192, Feb, 2014.

13. H.U. Gerber, E. S. W. Shiu and H. Yang, "Valuing equity-linked death benefits in jump diffusion models", *Insurance: Mathematics and Economics*, Vol. 53, No. 3, 615-623, Nov. 2013.

14. Zhimin Zhang, Hailiang Yang and Hu Yang, "On a nonparametric estimator for ruin probability in the classical risk model", *Scandinavian Actuarial Journal*, Vol. 2014, No. 4, 309 - 338, May. 2014.

15. J. Cai and H. Yang, "On the Decomposition of the Absolute Ruin Probability in a Perturbed Compound Poisson Surplus Process with Debit Interest", *Annals of Operations Research*, Vol. 212, 61-77, Jan. 2014.

16. R.J. Elliott, Y. Lin and H. Yang, "A Converse Comparison Theorem for Discrete-time Finite-state BSDEs and Risk Measures Using g-expectation", *Communications on Stochastic Analysis*, Vol. 7, No. 2, 227 - 244, June, 2013.

17. L. Xu, H. Yang and R. Wang, "Cox risk model with variable premium rate and stochastic investment return", *Journal of Computational and Applied Mathematics*, Vol. 256, 52 - 64, Jan. 2014.

18. H. Meng, T. K. Siu and H. Yang, "Optimal Dividends with Debts and Nonlinear Insurance Risk Processes", *Insurance: Mathematics and Economics*, Vol. 53, No. 1, 110-121, July, 2013.

19. Z. Zhang and H. Yang. "Nonparametric estimate of the ruin probability in a pure-jump Lévy risk model", *Insurance: Mathematics and Economics*, Vol. 53, No. 1, 24-35, July, 2013.

20. Z. Jin, H. Yang and G. Yin, "Numerical Methods for Optimal Dividend Payment and Investment Strategies of Regime-switching Jump Diffusion Models with Capital Injections", *Automatica*, Vol. 40, 2317 - 2329, August, 2013.

21. H. Meng, F. L. Yuen, T. K. Siu and H. Yang, "Optimal Portfolio in a Continuous-Time Self-Exciting Threshold Model", *Journal of Industrial and Management Optimization (JIMO)*, Vol. 9, No. 2, 487-504, April, 2013.

22. X. Xing and H. Yang, "American Type Geometric Step Options", *Journal of Industrial and Management Optimization (JIMO)*, Vol. 9, No. 3, 549 - 560, July, 2013.

23. F. L. Yuen, T. K. Siu and H. Yang, "Option Valuation by a Self-Exciting Threshold Binomial Model", *Mathematical and Computer Modelling*, Vol. 58, 28 - 37, July 2013.

24. Zhimin Zhang, Hailiang Yang and Hu Yang, "On a Sparre Andersen risk model perturbed by a spectrally negative Lévy process", *Scandinavian Actuarial Journal*, Vol. 2013, No. 3, 213-239, May, 2013.

25. H.U. Gerber, E. S. W. Shiu and H. Yang, "The Omega model: From bankruptcy to occupation times in the red", *European Actuarial Journal*, Vol. 2, No. 2, 259-272, December, 2012.

26. J. Wei, R. Wang and H. Yang, "Optimal Surrender Strategies for Equity-Indexed Annuity Investors with Partial Information", *Statistics and Probability Letters*, Vol. 82, No. 7, 1251-1258, July, 2012.

27. J. Wei, R. Wang and H. Yang, "On the Optimal Dividend Strategy in a Regime-switching Diffusion Model ", *Advances in Applied Probability* , Vol. 44, No. 3, 886-906, Sept. 2012.

28. H.U. Gerber, E. S. W. Shiu and H. Yang, "Valuing equity-linked death benefits and other contingent options: A Discounted Density Approach", *Insurance: Mathematics and Economics*, Vol. 51, No. 1, 73-92, July 2012.

29. J. Fu and H. Yang, "Equilibrium Approach of Asset Pricing under Levy Process", *European Journal of Operational Research*, Vol. 223, No. 3, 701-708, Dec. 2012.

30. Zhimin Zhang, Hailiang Yang and Hu Yang, "On a Sparre Andersen risk model with time-dependent claim sizes and jump-diffusion perturbation", *Methodology and Computing in Applied Probability*, Vol. 14, No. 4, 973-995, Dec., 2012.

31. F. L. Yuen and H. Yang, "Optimal Asset Allocation: A Worst Scenario Expectation Approach", *Journal of Optimization Theory and Applications*, Vol. 153, No. 3, 794 - 811, June 2012.

32. J. Fu and H. Yang, "Elasticity approach to asset allocation in discrete time", *Risk and Decision Analysis*, Vol. 3, 139-146, Feb. 2012.

33. R. J. Elliott, T. K. Siu and H. Yang, "Ruin Theory in a Hidden Markov-Modulated Risk Model", *Stochastic Models*, Vol. 27, 474-489, August, 2011.

34. F. Hao and H. Yang, "Coherent Risk Measure for Derivatives under Black-Scholes Economy with Regime Switching", *Managerial Finance*, Vol. 37, No. 11, 1011-1024, Oct. 2011.

35. N. Song, T. K. Siu, W. K. Ching, H. Tong and H. Yang, "Asset Allocation Under Threshold Autoregressive Models", *Applied Stochastic Models in Business and Industry*, Vol. 28, No. 1, 60-72, Jan/Feb. 2012.

36. Z. Jin, G. Yin and H. Yang, "Numerical Methods for Dividend Policy of Regime-Switching Jump-Diffusion Models", *Mathematical Control and Related Fields*, Vol. 1, No. 1, 21-40, March 2011.

37. D. Yao, H. Yang and R. Wang, "Optimal dividend and capital injection problem in the dual model with proportional and fixed transaction costs", *European Journal of Operational Research*, Vol. 211, No. 3, 568 - 576, June, 2011.

38. L. Qian, H. Yang and R. Wang, "Risk-minimizing Hedging Strategies for Unit-linked Life Insurance Contracts in a Regime Switching Levy Model" *Frontiers of Mathematics in China*, Vol. 6, No. 6, 1185-1202, Dec. 2011.

39. F.L. Yuen and H. Yang, "Pricing Options and Equity-Indexed Annuities in a Regime-switching Model by Trinomial Tree Method", *Journal of Systemics, Cybernetics and Informatics*, Vol. 9, No. 6, 81-86, Dec. 2011.

40. J. A. Wright, S.C. Yam and H. Yang, "On the probability of completeness for large markets", *Japan Journal of Industrial and Applied Mathematics*, Vol. 28, 301-313, August, 2011.

41. Zhinmin Zhang, Hailiang Yang and Hu Yang, "On the absolute ruin in a MAP risk model with debit interest", *Advances in Applied Probability*, Vol. 43, No. 1, 77 - 96, March, 2011.

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43. H. Albrecher, H.U. Gerber and H. Yang, "A direct approach to the discounted penalty function", *North American Actuarial Journal*, Vol. 14, No. 4, 420 - 434, Discussions, 434 - 447, October, 2010.

44. J. Zhu, H. Yang and K.W. Ng, "Ruin probabilities for the perturbed compound Poisson risk process with investment", *Communications in Statistics: Theory and Methods*, Vol. 40, 3917 - 3934, Oct. 2011.

45. J. Dong, K. C. Cheung and H. Yang, "Upper comonotonicity and convex upper bounds for sums of random variables", *Insurance: Mathematics and Economics*, Vol. 47, No. 2, 159-166, October, 2010.

46. H.U. Gerber and H. Yang, "Obtaining the dividends-penalty identity by interpretation", *Insurance: Mathematics and Economics*, Vol. 47, No. 2, 206-207, October 2010.

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48. D. Yao, H. Yang and R. Wang, "Optimal financing and dividend strategies in a dual model with proportional costs", *Journal of Industrial and Management Optimization (JIMO)*, Vol. 6, No. 4, 761-777, November 2010.

49. G. Yin, Z. Jin and H. Yang, "Asymptotically Optimal Dividend Policy for Regime-Switching Compound Poisson Models", *Acta Mathematicae Applicatae Sinica*, Vol. 26, No. 4, 529-542, Oct. 2010.

50. J. Wei, H. Yang and R. Wang, "On the Markov-Modulated Insurance Risk Model with Tax", *Blaetter DGVFM*, Vol. 31, No. 1, 65-78, April, 2010.

51. P. Chen and H. Yang, "Markowitz's Mean-Variance Portfolio Selection with Regime Switching: A Multi-period Model", *Applied Mathematical Finance*, Vol. 18, No. 1, 29 - 50, March. 2011.

52. F.L. Yuen and H. Yang, "Pricing Asian Options and Equity-Indexed Annuities with Regime-switching by Trinomial Tree Method", *North American Actuarial Journal*, Vol. 14, No. 2, 256-272; Discussions, 272 - 277, April 2010.

53. P. Chen and H. Yang, "Pension Funding Problem with Regime Switching Geometric Brownian Motion Assets and Liabilities", *Applied Stochastic Models in Business and Industry*, Vol. 26, No. 2, 125-141, March/April, 2010.

54. K.M. Kwan and H. Yang, "Dependent Insurance Risk Model: Deterministic Threshold", *Communications in Statistics: Theory and Methods*, Vol. 39, No. 5, 765-776, March, 2010.

55. T.K. Siu and H. Yang, "Nonparametric Bayesian Credibility", *Australian Actuarial Journal* , Vol. 15, No. 2, 209-230, December, 2009.

56. F.L. Yuen and H. Yang, "Option Pricing with Regime-switching by Trinomial Tree Method," *Journal of Computational and Applied Mathematics*, Vol. 233, No. 8, 1821-1833, Feb. 2010.

57. H.U. Gerber, E. S. W. Shiu and H. Yang, "An Elementary Approach to Discrete Models of Dividend Strategies", *Insurance: Mathematics and Economics*, Vol. 46, No. 1, 109-116, Feb. 2010.

58. H.U. Gerber, E. S. W. Shiu and H. Yang, "Crossing Time of Annuities with Exponential Payment Rates", *Bulletin of the Swiss Association of Actuaries*, Vol. 2009, No. 2, 96-100.

59. X.S. Lin, K.S. Tan and H. Yang, "Pricing Annuity Guarantees under a Regime-Switching Model", *North American Actuarial Journal*, Vol. 13, No 4, 316-332; Discussions, 333-338, October, 2009.

60. R.J. Elliott, T.K. Siu and H. Yang, "Filtering a Markov Modulated Random Measure", *IEEE Transactions on Automatic Control*, Vol. 55, No. 1, 74-88, January, 2010.

61. F.L. Yuen and H. Yang, "Option Pricing in a Jump-diffusion Model with Regime-switching", *ASTIN Bulletin*, Vol. 39, No. 2, 515-539, November, 2009.

62. T.K. Siu and H. Yang, "Option Prices When the Regime-Switching Risk is Priced", *Acta Mathematicae Applicatae Sinica*, Vol. 25, No. 3, 369-388, July 2009.

63. J. Zhu and H. Yang, "Estimates for the absolute ruin probability in the compound Poisson risk model with credit and debit interest", *Journal of Applied Probability*, Vol. 45, No. 3, 818-830, September, 2008.

64. P. Chen, H. Yang and G. Yin, "Markowitz's mean-variance asset-liability management with regime switching: a continuous-time model", *Insurance: Mathematics and Economics*, Vol. 43, No. 3, 456-465, Dec. 2008.

65. T. K. Siu, J. Lau and H. Yang, "Pricing Participating Products Under a Generalized Jump-Diffusion Model", *Journal of Applied Mathematics and Stochastic Analysis*, Vol. 2008, 1-30.

66. J. Zhu and H. Yang, "Ruin probabilities of a dual Markov-modulated risk model", *Communications in Statistics: Theory and Methods*, Vol. 37, No. 20, 3298-3307, Sept. 2008.

67. T. K. Siu, J. Lau and H. Yang, "Ruin Theory Under a Generalized Jump-Diffusion Model with Regime Switching", *Applied Mathematical Science* , Vol. 2, 1415 - 1430, 2008.

68. T.K. Siu, H. Yang and J. Lau, "Pricing Currency Options Under Two-Factor Markov-modulated Stochastic Volatility Models", *Insurance: Mathematics and Economics*, Vol. 43. No.3, 295-302, Dec. 2008.

69. G. Yin, Q.S. Song and H. Yang, "Stochastic optimization algorithms for barrier dividend strategies", *Journal of Computational and Applied Mathematics*, Vol. 223, No. 1, 240-262, January 2009.

70. T. K. Siu, J. Lau and H. Yang, "On valuing participating life insurance contracts with conditional heteroscedasticity", *Asia-Pacific Financial Markets*, Vol. 14, No. 3, 255-275, September, 2007.

71. K. C. Cheung and H. Yang "Ordering of Optimal Portfolio Allocations in a Model with Mixture of Fundamental Risks", *Journal of Applied Probability*, Vol. 45, No. 1, 55-66, March 2008.

72. K.M. Kwan and H. Yang, "Ruin probability under a threshold insurance risk model", *Belgian Actuarial Bulletin*, Vol. 7, 41-49, 2007.

73. J. Zhu and H. Yang, "On Differentiability of Ruin Functions under Markov-modulated models", *Stochastic Processes and Their Applications*, Vol. 119, 1673-1695, May 2009.

74. Z.F. Li, K.S. Tan and H. Yang, "Multiperiod Optimal Consumption-Investment Strategies with Mortality Risk and Environmental Uncertainty", *North American Actuarial Journal*, Vol. 12, No 1, 47 - 64, January 2008.

75. R.J. Elliott, T.K. Siu and H. Yang, "Martingale Representation and Hedging Contingent Claims With Regime Switching", *Communications on Stochastic Analysis*, Vol. 1, No 2, 279-292, August, 2007.

76. H.U. Gerber and H. Yang, "Absolute Ruin Probabilities in a Jump Diffusion Risk Model with Investment", *North American Actuarial Journal*, Vol. 11, No. 3, 159-169, July, 2007.

77. J. Zhu and H. Yang, "Ruin theory for a Markovian regime switching model under a threshold dividend strategy", *Insurance: Mathematics and Economics*, Vol. 42, No.1, 311-318, Feb. 2008.

78. K.C. Cheung and H. Yang, "Optimal Investment-Consumption Strategy in a Discrete-Time Model with Regime Switching", *Discrete and Continuous Dynamical Systems-Series B*, Vol. 8, No. 2, 315-332, September 2007.

79. H.U. Gerber, X. S. Lin and H. Yang, "A Note on the Dividends-penalty Identity and the Optimal Dividend Barrier", *ASTIN Bulletin*, Vol. 36, No. 2, 489-503, 2006.

80. J. W. Lau, T. K. Siu and H. Yang, "On Bayesian Mixture Credibility", *ASTIN Bulletin*, Vol. 36, No. 2, 573-588, 2006.

81. K.W. Ng, H. Yang and L. Zhang, "Upper Bounds for Ruin Probability in a filtered compound Poisson model", *International Journal on Statistics and Systems*, Vol. 1, No. 2, 191-201, August, 2006.

82. T.K. Siu, H. Tong and H. Yang, "Option Pricing Under Threshold Autoregressive Models by Threshold Esscher Transform", *Journal of Industrial and Management Optimization*, Vol. 2, No. 2, 177-197, 2006.

83. Z. F. Li, H. Yang and X.T. Deng, "Optimal Dynamic Portfolio Selection with Earnings-at-Risk", *Journal of Optimization Theory and Applications*, Vol. 132, No. 3, 459-473, March, 2007.

84. Z.F. Li, K.W. Ng, K.S. Tan and H. Yang, "Best CRP investment strategies for Dynamic Portfolio Selection", *International Journal of Theoretical and Applied Finance*, Vol. 9, No. 6, 951-966, Sept. 2006.

85. J. Cai, H.U. Gerber and H. Yang, "Optimal Dividends in an Ornstein-Uhlenbeck Type Model with Credit and Debit Interest", *North American Actuarial Journal,* Vol. 10, No. 2, 94-108; Discussions, 109-119, 2006.

86. T.K. Siu, H. Tong and H. Yang, "On Bayesian Value at Risk: From Linear to Nonlinear Portfolios", *Asia-Pacific Financial Markets*, Vol. 11, No. 2, 161-184, 2004.

87. G. Yin, Y. J. Liu and H. Yang, "Bounds of Ruin Probability for Regime-switching Models Using Time Scale Separation", *Scandinavian Actuarial Journal*, Vol. 2006, No. 2, 111-127, March 2006.

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89. G. K. C. Chan and H. Yang, "Upper Bounds for Ruin Probability under Time Series Models", *Probability in the Engineering and Informational Sciences*, Vol. 20, No. 3, 529-542, 2006.

90. K. C. Cheung and H. Yang, "Optimal Stopping Behavior of Equity-Indexed Annuity with Regime Switching", *Insurance: Mathematics and Economics*, Vol. 37, No. 3, 599-614, 2005.

91. H. Yang and L. Zhang, "Optimal Investment for Insurer with Jump-Diffusion Risk Process", *Insurance: Mathematics and Economics*, Vol. 37, No. 3, 615-634, 2005.

92. A. C. Y. Ng and H. Yang, "Lundberg-type bounds for the joint distribution of surplus immediately before and after ruin under a Markov-modulated risk model", *ASTIN Bulletin*, Vol. 35, No. 2, 351-361, 2005.

93. J. Cai and H. Yang, "Ruin in the Perturbed Compound Poisson Risk Process under Interest Force", *Advances in Applied Probability*, Vol. 37, No. 3, 819-835, September 2005.

94. H. Yang and L. Zhang, "Ruin Problems For Discrete Time Risk Model with Random Interest Rate", *Mathematical Methods of Operations Research*, Vol. 63, No. 2, 287-299, May 2006.

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96. G. K. C. Chan and H. Yang, "Sensitivity Analysis on Ruin Probabilities with Heavy-tailed Claims", *Statistical Methodology*, Vol. 2, No.1, 59-63, 2005.

97. G. K. C. Chan and H. Yang, "Ruin problems under feedback model with random interest", *Advances and Applications in Statistics*, Vol. 4, No.3, 379-395, Dec. 2004.

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99. K. C. Cheung and H. Yang, "Ordering optimal proportions in the asset allocation problem with dependent default risks", *Insurance: Mathematics and Economics*, Vol. 35, No 3, 595-609, Nov. 2004.

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101. A. C. Y. Ng and H. Yang, "Lundberg-Type Bounds for the Joint Distribution of Surplus Immediately before and at Ruin under the Sparre Andersen Model", *North American Actuarial Journal,* Vol. 9, No. 2, 85 - 100; Discussions, 100 - 107, April 2005.

102. R. Wang, H. Yang and H. Wang, "On the Distribution of Surplus Immediately after Ruin under Interest Force and Subexponential Claims", *Insurance: Mathematics and Economics*, Vol. 35, No. 3, 703-714, Nov. 2004.

103. L. Wei and H. Yang, "Explicit expressions for the ruin probabilities of Erlang risk processes with Pareto individual claim distributions", *Acta Mathematicae Applicatae Sinica*, Volume 20, No 3, 495-506, Sept. 2004.

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110. R. J. Elliott, T. K. Siu and H. Yang, "On a Generalized Form of Risk Measures", *Australia Actuarial Journal*, Volume 9, No. 4, 587-623, December 2003.

111. K.W. Ng, Q.H. Tang, J.A. Yan and H. Yang, "Precise Large Deviations for Sums of Random Variables with Consistently Varying Tails", *Journal of Applied Probability*, Vol. 41, No. 1, 93-107, 2004.

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132. H. Yang, "Conditional Ruin Probability with Stochastic Interest", *Stochastic Analysis and Applications*, Vol. 19, No. 2, p. 207-214, 2001.

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134. T.K. Siu and H. Yang, "Subjective Risk Measures: Bayesian Predictive Scenarios Analysis", *Insurance: Mathematics and Economics*, Vol. 25/2, p. 157 - 169, Nov. 1999.

135. E.K. Boukas and H. Yang. "On the Exponential Stability of Stochastic Markovian Jump Systems", *Automatica,* Vol. 35, p. 1437-1441, August 1999.

136. E.K.Boukas, A.Swierniak and H.Yang. "Suboptimality of a Decentralized Feedback Control Law", *Transactions of the ASME, Journal of Dynamic Systems, Measurement, and Control,* Vol. 121, p. 305-308, June 1999.

137. H. Yang. "Non-exponential Bounds for Ruin Probability with Interest Effect Included", *Scandinavian Actuarial Journal*, p. 66-79, 1999.

138. H. Yang. "Continuity and Differentiability of Solution of Two Parameter Stochastic Differential Equations". *Soochow Journal of Mathematics,* Vol. 25, No. 1, p. 43-56, 1999.

139. E.K. Boukas and H. Yang. "Robust LQ Regulators and Cost Estimation for Jump Linear Systems with Uncertain Parameters", *International Journal of Dynamic and Control*, Vol. 9, No. 2, p. 125 - 135, 1999.

140. P.P. Boyle and H. Yang. "Asset Allocation with Time Variation in Expected Returns", *Insurance: Mathematics and Economics,* Vol. 21 p. 201 - 218, 1997.

141. E.K. Boukas, A. Swierniak and H. Yang. "On the Robustness of Jumping Linear Quadratic Control", *International Journal of Robust and Nonlinear Control,* Vol. 7, p. 899 - 910, 1997.

142. E.K. Boukas and H. Yang. "Robust Stability of Nonlinear Piecewise Deterministic Systems under Matching Conditions", *Mathematical Problems in Engineering: Theory, Methods and Applications.* 1997, 203-215.

143. E.K. Boukas and H. Yang. "Robust Stabilization by Dynamic Combined State and Output Feedback Compensator for Nonlinear Systems with Jumps", *Journal of Optimization Theory and Applications*, Vol. 92, No. 1, 1997, p. 63 - 75.

144. E.K. Boukas, K. Simek, A. Swierniak and H. Yang. "Robust Stabilization and Guaranteed Cost Control of Large Scale Linear Systems with Jumps", *Kybernetika*, Vol. 33, No. 1, p. 121 -131, 1997.

145. E.K. Boukas and H. Yang. "Stability of Stochastic Systems with Jumps", *Mathematical Problems in Engineering: Theory, Methods and Applications,* Volume 3, pp. 173-185, 1996.

146. E.K. Boukas and H. Yang. "Stability of Discrete Time Linear Systems with Markovian Jumping Parameters", *MCSS: Mathematics of Control, Signals and Systems*. Vol. 8, p. 390 - 402, 1995.

147. K. Benjelloun, E.K. Boukas and H. Yang. "Robust Stabilizability of Uncertain Linear Time-Delay Systems with Markovian Jumping Parameters", *Transactions of the ASME, Journal of Dynamic Systems, Measurement, and Control,* Vol. 118, p. 776-783, 1996.

148. E.K. Boukas and H. Yang. "Optimal Control of Manufacturing Flow and Preventive Maintenance", *IEEE Transactions on Automatic Control*, Vol. 41, No. 6, p. 881-885, 1996.

149. E.K. Boukas, A. Swierniak and H. Yang. "Decentralized Feedback Controllers for Uncertain Interconnected Systems with Markovian Jumping Parameters", *Applied Mathematics and Computer Science*, Vol. 5, No. 3, p. 469-479, 1995.

150. E.K. Boukas, H. Yang and Q. Zhang. "Minimax Production Planning in Failure Prone Manufacturing Systems", *Journal of Optimization Theory and Applications*, Vol. 87, No. 2, p. 269-286, 1995.

151. J. Karunamuni and H. Yang. "On Convergence Rates of Monotone Empirical Bayes Tests for the Continuous One Parameter Exponential Family", *Statistics and Decisions,* Volume 13, p. 181-192, 1995.

152. R.J. Elliott and H. Yang. "How to Count and Guess Well: Discrete Adaptive Filters", *Applied Mathematics and Optimization: An International Journal.* Vol. 30, No. 1, 1994. p. 51 - 78.

153. M. Chesney, R.J. Elliott, D. Madan and H. Yang. "Diffusion Coefficient Estimation and Asset Pricing when Risk Premia and Sensitive are Time Varying", *Mathematical Finance,* Vol. 3, No. 2. April 1993. p.85 - 99.

154. R.J. Elliott and H. Yang. "Control of Partially Observed Diffusions", *Journal of Optimization Theory and Applications*, Volume 71. No. 3. December 1991. p.485 - 501.

Refereed Chinese Journal Papers

155. Z. F. Li, S. Y. Wang and H. Yang, "Characterization of Weak No-Arbitrage in Frictional Markets", *Chinese Journal of Management Science*, Vol. 10, No. 3, 2002, p. 1-5.

156. G. Wang and H. Yang. "Probabilistic Numerical Solutions to the Dirichlet Problem of Degenerate Elliptic Equations" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Vol. 21 No.1, 1990. p. 17 - 23.

157. J.X. Qi and H. Yang. "Probabilistic Numerical Solution for Initial Boundary Value Problem of Parabolic Equations" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Volume 21. No.1, 1990. p.24 - 34.

158. H. Yang and G. Wang. "Probabilistic Numerical Solution for Dirichlet Problem of Elliptic Equations" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Volume 20. No.1, 1989. p.19 - 25. See *Mathematical Reviews*, 90k; 65021 for the summary.

159. G. Wang and H. Yang. "Probabilistic Numerical Solution for a Class of Parabolic Equations" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Volume 19. No.3, 1988. p.388-393. See *Mathematical Reviews*, 90d: 65178 for the summary.

160. H. Yang and L.S. Gao. "An Approximation Method for Solving Schrodinger Equation" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Volume 17. No.4, 1986. p.648651.

161. H. Yang. "Markov Process Associated with the Boltzmann Equation of Hard Ball Molecules" (Chinese, English summary), *Neimenggu Daxue Xuebao*, Volume 17. No. 3, 1986. p.638-641. See *Mathematical Reviews*, 88a: 60135 for the summary.

Book Chapters

162. R.J. Elliott, T.K. Siu and H. Yang, “A Partial Differential Equation Approach To Multivariate Risk Theory” *Stochastic Analysis and Applications to Finance: Essays in Honour of Jia-An Yan*, 111 - 123, Sept. 2012.

163. J. Wei, H. Yang and R. Wang, “Optimal Threshold Dividend Strategy under the Compound Poisson Model with Regime Switching”, *Stochastic Analysis with Financial Applications*, edited by A. Kohatsu-Higa, N. Privault and S.J. Sheu, in *Progress in Probability*, Vol. 65, 413-429, 2011.

164. H. Yang, Some Recent Developments in Actuarial Science, *Asymptotic Theory in Probability and Statistics with Applications*, Edited by T. L. Lai, L. Qian and Q. Shao, 515-534, June, 2007.

165. K. B. Siu and H. Yang, “Expected shortfall under a model with market and credit risks”, *Hidden Markov Models in Finance*, Edited by R. Mamon and R. J. Elliott, Springer, p. 91-100, 2007.

166. K. C. Cheung and H. Yang, “Claim Size Processes”, *Encyclopedia of Actuarial Science*, Editors: Jef Teugels and Bjorn Sundt, Vol. 1, 274-277, John Wiley & Sons, 2004.

167. H. Yang, “Lundberg Inequality for Ruin Probability”, *Encyclopedia of Actuarial Science*, Editors: Jef Teugels and Bjorn Sundt, Vol. 2, 1050-1054, John Wiley & Sons, 2004.

168. H. Yang, “The Cramér-Lundberg condition, estimate”, *Encyclopedia of Actuarial Science*, Editors: Jef Teugels and Bjorn Sundt, Vol. 1, 394-398, John Wiley & Sons, 2004.

169. H. Yang, “The Esscher transform”, *Encyclopedia of Actuarial Science*, Editors: Jef Teugels and Bjorn Sundt, Vol. 2, 617-621, John Wiley & Sons, 2004.

170. H. Yang and G. Yin, “Ruin Probability for a Model under Markovian Switching Regime”, *Probability, Finance and Insurance*, Edited by T. L. Lai, H. Yang and S. Yung, World Scientific Publisher, Singapore, p. 206-217, 2004.

171. K. C. Cheung and H. Yang, “Asset Allocation: Investment Strategies for Financial and Insurance Portfolio”, *Intelligent and Other Computational Techniques in Insurance: Theory and Applications*, Editors: Arnold F. Shapiro and Lakhmi C. Jain, World Scientific Publisher, p. 587-623, 2003.

172. H. Yang, “Risk: From Insurance to Finance”, *Recent Developments in Mathematical Finance*, Edited by J. Yong, World Scientific Publisher, Singapore, p. 228-237, 2002.

173. H. Yang and L. Zhang, "Ruin Theory with Interest Incomes", *Statistics and Finance: An Interface*, Edited by W. S. Chan, W. K. Li and H. Tong, Imperial College Press: London, p. 355 - 369, 2000.

174. W. C. Hui, H. Yang and K. C. Yuen, "Optimal Asset Allocation under GARCH Model", *Statistics and Finance: An Interface*, Edited by W. S. Chan, W. K. Li and H. Tong, Imperial College Press: London, p.336 - 346, 2000.

175. E.K. Boukas and H. Yang. "Robust Stabilization of Nonlinear Systems with Markovian Jumping Parameters", *Control of Distributed Parameter and Stochastic Systems*, edited by Chen, S. Li, X, Yong, J. Zhou, X.Y., p. 173-180, 1998.

176. R.J. Elliott and H. Yang. "Forward and Backward Equations for an Adjoint Process", *Stochastic Processes. A Festschrift in Honour of Gopinath Kallianpur.* Edited by S. Cambanis, J.K.Ghosh, R.L.Karandikar and P.K.Sen. Springer-Verlag. 1993. P. 61 - 70.

Refereed Conference Proceeding Papers:

177. F. L. Yuen and H. Yang, "Pricing Options and Equity-Indexed Annuities in a Regime-switching Model by Trinomial Tree Method", Proceedings of The 14th World Multi-Conference on Systemics, Cybernetics and Informatics, Volume III, p. 321- 325, Orlando, 2010.

178. R. J. Elliott, T. K. Siu and H. Yang, "Insurance Claims Modulated by a Hidden Marked Point Process", The 2007 American Control Conference, New York, 2007.

179. E.K. Boukas and H. Yang. "On the Exponential Stability of Stochastic Markovian Jump Systems", *Proceedings of the IEEE 36rd Conference on Decision and Control*, p.547 - 548, 1997.

180. E.K. Boukas, H. Yang and Q. Zhang. "Minimax Production Planning in Failure Prone Manufacturing Systems", *Proceedings of the IEEE 34rd Conference on Decision and Control*, New Orleans, Vol. 3 of 4, p. 3134-3139, 1995.

181. E.K. Boukas and H. Yang. "Optimal Hedging Surface Policy for Manufacturing Flow and Preventive Maintenance", *Proceedings of the IEEE 33rd Conference on Decision and Control,* Lake Buena Vista, Florida December 14-16, 1994, p. 607 - 608.

Non-Refereed Publications:

182. H.U. Gerber, E.S.W. Shiu and H. Yang. Option Pricing Without Tears: Valuing Equity-Linked Death Benefits, Actuarial Research Clearing House (ARCH), 2014.1.

183. H. Yang, "The Interplay Between Finance and Actuarial Science", *Risk and Decision Analysis*, Vol. 3, 1-1, Feb. 2012.

184. T.K. Siu and H. Yang. "On Pricing Derivatives under Nonlinear Time Series Models", *PAMM*, Vol. 7, NO. 1, p. 1050501-1050502, Dec. 2007.

185. H. Yang. "Discussion of Cai and Xu's 'On the Decomposition of the Ruin Probability for a Jump-Diffusion Surplus Process Compounded by a Geometric Brownian Motion' ", *North American Actuarial Journal*, Volume 10, No. 2, 129-131, 2006.

186. H. Yang. "Ruin Theory and Credit Risk", *Actuarial Research Clearing House (ARCH)*, 2001.1, 23 pages.

187. H. Tong and H. Yang. "Discussion on 'Non-Gaussian Ornstein-Uhlenbeck-based models and some of their uses in financial economics' by O.E. Barndorff-nielsen and N. Shephard", *J. R. Statist. Soc. B*, Vol. 63, Part 2, p. 232-233.

188. E.K. Boukas and H. Yang. "Robust LQ Regulators and Cost Estimation for Jump Linear Systems with Uncertain Parameters", 13th IFAC Conference San Francisco, 1996

189. G. Willmot and H. Yang. "Martingales and Ruin Probabilities", *Actuarial Research Clearing House (ARCH)*, 1996.1, p. 521-527.

190. K. Benjelloun, E.K. Boukas and H. Yang. "Robust Stabilizability of Uncertain Linear Time Delay Systems with Markovian Jumping Parameters", *Proceedings of the American Control Conference*, p. 330 - 334.

191. E.K. Boukas and H. Yang. "Robust Stability of the Interconnected Jump Systems", *Proceedings of European Control Conference*, September 5 - 8, 1995, Rome, Italy.

192. E.K. Boukas and H. Yang. "Robust Stability of Discrete Time Systems with Jumps", *Proceedings of the 1994 Canadian Conference on Electrical and Computer Engineering.*

193. E.K. Boukas, A. Swierniak and H. Yang. "Hierarchical Robust Control of Linear Systems with Jumps", *IFAC Workshop on New Trends in Design of Control Systems*, September 8-10, 1994. Smolenic, Slovakia. p. 240-242.

194. E.K. Boukas, A. Swierniak and H. Yang. "Decentralized Control of Piecewise Deterministic Large Scale Linear Systems", *IFAC Workshop on New Trends in Design of Control Systems*, September 8-10, 1994. Smolenic, Slovakia, p.163-166.

195. E.K. Boukas, A. Swierniak and H. Yang. "Guaranteed Quadratic Cost Control of Jump Linear Systems", *Proceeding of Sixth International Symposium on Dynamic Games and Application.* edited by H.Breton and G. Zaccour, StoJovite, Quebec, Canada, 1994, p. 169 - 173.

196. E.K. Boukas, A. Swierniak and H. Yang. "Guaranteed Cost Control of Large Scale Linear Systems with Jumps", *International Symposium on Mathematical Models in Automation and Robotics*, September 1 - 3, 1994, Miedzyzdroje, Poland, p. 51 - 55.

EDITORIAL APPOINTMENTS:

- Editor of book series: "Advances in Statistics, Probability and Actuarial Science", published by World Scientific, 2010-now.
- Associate editor of *Insurance: Mathematics and Economics*, 2003 - now.
- Associate editor of *North American Actuarial Journal*, 2013 - now.
- Associate editor of *Stochastics: An International Journal of Probability and Stochastic Processes*, 2008-now.
- Associate editor of *Journal of Industrial and Management Optimization (JIMO)*, 2012 - now.
- Associate editor of *Acta Mathematicae Applicatae Sinica* , 2007 - now.
- Guest editor for a special issue of *Risk and Decision Analysis* on Insurance and Finance, 2011.
- Section Editor of the Encyclopedia of Quantitative Finance, published by Wiley in 2010.
- Guest editor for a special issue of *The Journal of Industrial and Management Optimization (JIMO)*, 2005-2006.
- Editorial board member of *Chinese Journal of Probability and Statistics*, 2010-now

PLENARY SPEAKER

- Keynote speaker at the International Conference on Mathematics, Statistics, and Financial Mathematics 2014 (ICMSFM2014), 18-19 Nov. 2014, Kuala Lumpur, Malaysia.

- The 2013 China International Conference on Insurance and Risk Management, July 17 - 20, 2013, Kunming, China.
- Panel Discussion on Actuarial Education and Actuarial Educators Network at IAA Fund Seminar in Hong Kong 9 and 10 May 2012, Hong Kong.
- Plenary speaker at 2011 China International Conference on Insurance and Risk Management, Beijing, July 24-27, 2011.
- Keynote speaker at the 6th IMT-GT International Conference on Mathematics, Statistics and Its Applications, Kuala Lumpur, November 3-4, 2010.
- Plenary speaker at Actuarial Risk, CIMAT Guanajuato Mexico, September 22 to September 30, 2010.
- Keynote speaker at the 3rd International Workshop on Gerber-Shiu Functions, Waterloo, Canada, June 14-16, 2010.
- Keynote speaker at the International Conference on Actuarial Science, Chongqing, China, June 3-5, 2010.
- Plenary Speaker at the International Actuarial Meeting on Risk Measures and Solvency, Antalya, Turkey, May, 20-24, 2007.
- Plenary Speaker at the 2006 Conference on Financial Mathematics and Financial Engineering, Baotou, China, August 2006.
- Plenary speaker at the Tenth International Congress of Insurance Mathematics and Economics, Leuven, Belgium, July 18 to July 20, 2006.
- Plenary speaker at the Twelfth International Congress on Computational and Applied Mathematics (ICCAM 2006), Leuven, Belgium, July 10 to July 14, 2006.
- Plenary Speaker at The Second International Conference on Risk Management & The Third International Conference on Financial System Engineering, Guang-Zhou, China, December, 2005.
- Plenary Speaker at the 2004 conference on financial mathematics and financial engineering, Guangzhou, China, May 2004.

INVITED TALKS:

- CUHK Symposium on Statistics: Financial Risk Management, Hong Kong, December 22-23, 2014.
- The First Chonging University Workshop on Actuarial Science and Risk Management, December 13 -14, 2014.

- 105 Annual Meeting of the Swiss Association of Actuaries, Davos, Switzerland, September 6, 2014.
- The second Asian Quantitative Finance Conference , Weihai, China, June 19 -21, 2014.
- The Second International Conference on Engineering and Computational Mathematics (ECM2013), Hong Kong, Dec. 16 - 18, 2013.
- International Conference on Actuarial Science and Related Field, Shanghai, China, Nov. 29-30, 2013.
- Asymptotic Statistics and Relate Topics: Theories and Methodologies, Tokyo, Japan, September 2-4, 2013.
- Discussant of session on Insurance and Financial Risks: Actuarial Science Approaches at 59th World Statistics Congress of the International Statistical Institute, Hong Kong, August 25 - 30, 2013.
- Workshop on Stochastic Analysis and Related Topics, Beijing, China, August 5-7, 2013.
- The first workshop on SDEs, SPDEs and related topics, USTC, China, July 29-August 2, 2013.
- Workshop on Risk Management in Insurance, Actuarial Science, and Finance, Nanjing University of Finance and Economics, China, May 4-5, 2013.
- 2012 China Risk Management and Actuarial Science Forum, Shanghai, China, November 17-18, 2012.
- International Conference on Actuarial Science and Risk Management (ASRM 2012), June 24-27, 2012, Xiamen, China.
- HKU-HKUST-Stanford Conference in Quantitative Finance, Dec. 9 - 10, 2011, Hong Kong.
- The Role of the Actuary in the Economy and in the Financial Sector, Ulaanbaatar, Mongolia, November 14-15, 2011.
- Stochastic Analysis and Its Applications to Mathematical Finance, July 4-6, 2011, Beijing.
- Memorable Actuarial Research Conference, Leuven, June, 2011.
- The International Conference on Applied Statistics and Financial Mathematics, December, 2010, Hong Kong Poly U.

- 2010 China Risk Management and Actuarial Science Forum, Renmin University of China, China, November 19-20, 2010.
- Workshop on Financial Mathematics & Applied Statistics, Hong Kong, December 5, 2009.
- The IMS-China International Conference on Statistics and Probability 2009, Weihai, July 3-6, 2009.
- The Workshop on Stochastic Analysis and Finance, Hong Kong, June 29 - July 2, 2009.
- Invited speaker at The Asian Mathematical Conference 2009, June 22-26, 2009, Kuala Lumpur, Malaysia.
- Conference on Financial Modelling and Related Topics, Hong Kong, January 16-17, 2009.
- Actuarial Science: Development and future, A meeting for Hans Gerber's 65^{th} birthday, Beijing, July 19-20, 2008.
- A Conference on Mathematics of Finance and Related Applications, Jan. 3-4, 2008, Hong Kong.
- The 2007 Shanghai-Hong Kong Insurance and Actuarial Forum, Shanghai, China, August 18-19, 2007.
- Invited speaker at Recent Developments in Financial and Insurance Mathematics and the Interplay with the Industry, Oberwolfach, Germany, February 2007.
- "Festkolloquium" in honour of Phelim Boyle's 65^{th} birthday, Waterloo, Canada, June 29-30, 2006.
- International Conference on Asymptotic Theory in Probability and Statistics, Zhejiang University, Huangzhou, China, June 18-21, 2006.
- Shanghai-Hong Kong Insurance and Actuarial Forum, Fudan University, Shanghai, China, June, 2006
- Conference on Probability with Applications to Finance and Insurance: A joint HKU-HKUST-CUHK-Fudan meeting celebrating Professor Tze Leung Lai's Sixtieth Birthday, Hong Kong, Dec. 2005.
- British-Sino workshop on Developments of Stochastic Analysis and Financial Mathematics, August, 2005, London, UK.
- Eurandom Workshop on Risk Measures and Risk Management, May, 2005, The Netherlands.

- International Workshop in Financial Mathematics and Statistics, December, 2004, Hong Kong.
- Threshold models and new developments in time series, July, 2004, Hong Kong.
- Conference on Insurance Mathematics, Ruin Theory and Monte Carlo Methods, Hong Kong, June, 2004.
- Risk Management and Insurance, June, 2004, Waterloo, Canada.
- 4th International Conference on Statistical Finance and Financial Engineering, March, 2004, Tokyo, Japan.
- Workshop on Control and Applications, December, 2003, Hong Kong.
- Workshop in Probability with Applications to Finance and Insurance, July, 2002, Hong Kong.
- International Conference on Mathematical Finance, May, 2001, Shanghai, China
- Conference on Control of Distributed Parameter and Stochastic Systems, Hangzhou, China, June, 1998.
- Conference on Financial Mathematics, UST, Hong Kong, June 1997.
- Computational Finance Workshop, University of Toronto, Canada, May 1996.

RESEARCH FUNDS:

1. CERGs as PI

- 1998: Investment Risk Related Problems in Actuarial Science, HK$ 475,000 for two years, RGC (PI), Hong Kong SAR.
- 2001: Insurance and Financial Risks: Actuarial Science Approaches, HK$ 408,000 for three years, RGC (PI), Hong Kong SAR.
- 2004: Some actuarial science and finance problems under Markovian regime switching models, HK$ 568,480, RGC (PI), Hong Kong SAR.
- 2005: Actuarial Science and Finance Models with Dependent Risks, HK$ 256,000, RGC (PI), Hong Kong SAR.
- 2006: Embedded options in insurance products and optimal policies for insurance portfolios under Markovian Regime switching models, HK$ 551,010, RGC (PI), Hong Kong SAR.

- 2008: Risk Management of Equity-Linked Insurance Products, HK$ 582,500, GRF (PI), Hong Kong SAR.
- 2009: Option Pricing and ALM in Regime Switching Models, HK$ 582,500, GRF (PI), Hong Kong SAR.
- 2011: Pricing of barrier options, valuation of related EIAs, and optimal strategies for insurance and financial portfolios, HK$ 700,000, GRF (PI), Hong Kong SAR.
- 2013: Valuing equity-linked insurance products and related problems in actuarial science, HK$ 868,303, GRF (PI), Hong Kong SAR.

2. CERGs as CI

- 1998: An Approach to Nonlinear and Nonstationary Time Series Modelling (PI: W.K. Li), HK$ 642,000 for three years, RGC (CI), Hong Kong SAR.
- 1999: Analyses of Correlated Aggregate Claims in a Book of Insurance Business (PI: K.C. Yuen), HK$ 426,000 for three years, RGC (CI), Hong Kong SAR.

3. SoA CAE grant

- 2013: Investigator of the CAE 2013 grant: Actuarial Study of Dependent Risks: Analysis and Applications, US$281,490.00 for three years, SoA.

4. 111 plan grant

- 2013: Team member of "Platform for Innovation Research in Statistical Applications and Theory", East China Normal University, RMB 4.5M, China.

5. CRCGs

- 1996: Optimal Asset Allocation under CEV Model, HK$ 40,000, CRCG, The University of Hong Kong.
- 1997: Exotic Options under CEV Model, HK$ 86,701, CRCG, The University of Hong Kong.
- 1999: Analysis of Risk Measures, HK$ 43,500, CRCG, The University of Hong Kong.
- 2000: Correlated Risk and Default Risk Measure and Management, HK$ 10,000, Facuty of Social Science, HKU.

- 2001: Characterisations of No-arbitrage under Fractional Market Models, HK$ 79,000 for three years, CRCG, The University of Hong Kong.
- 2002: On Two Mathematical Finance Problems, HK$ 74,260 for three years, CRCG, The University of Hong Kong.
- 2003: Risk Theory under Markovian Regime Switching Insurance Risk Models, HK$ 15,000 for one year, RGC fundable but not funded project (PI), Hong Kong SAR.
- 2003: Optimal Investment Policy for Insurance Portfolio, HK$ 64,500 for three years, CRCG, The University of Hong Kong.
- 2004: Closed Form Expressions for the Ruin Probabilities, HK$ 25,000, CRGC (PI), The University of Hong Kong.
- 2007: Absolute ruin probability in a jump diffusion model, HK$ 67,500, CRGC (PI), The University of Hong Kong.

OTHER PROFESSIONAL ACTIVITIES AND AWARDS:

- The University of Hong Kong Long Service Award.
- Listed in the 30^{th} Anniversary Edition of Who's Who in the World 2012, and the later editions.
- Listed in Asia/Pacific Who's Who (Vol. X), 2010.
- Member of Academic Committee of the China Center for Insurance and Risk Management of Tsinghua SEM.
- 1^{st} Runner-up of the ASHK Best Paper Award, 2006.
- Reviewer for *Mathematical Reviews*, 2005 - now. (I have written many review articles which have appeared or will appear in *Mathematical Reviews*).
- Reviewer of The Natural Sciences and Engineering Research Council of Canada (NSERC).
- Assessor for the Australian Research Council (ARC).
- Reviewer of RGC of HKSAR.
- Reviewer for more than 30 journals.
- External examiner for the actuarial science programm in Universiti Tunku Abdul Rahman, 2009-2015.

- External examiner for the financial and actuarial mathematics programm in University of Malaya, 2007-2010.
- Member of a committee to design the syllabus of a fellowship examination on asset and liability management for the Society of Actuaries of China (2001-2004).
- Member of Text Book Evaluation Panel (Chinese Actuarial Exam 015: Assets and Liabilities Management), December, 2003.
- Member of the editorial working committee of the *ICSA Bulletin*, 2000-2002.
- I have been invited to give talks at universities in overseas (University of Alberta, Wayne State University, University of Leuven, Austrian Academy of Sciences, Heriot-Watt University, Osaka University (I gave a short course on risk theory and presented a seminar), University of Malaya, National University of Singapore, Polytechnic Institute of New York University, National University of Mongolia, University of New South Wales, Universiti Tunku Abdul Rahman, University of Lausanne and University of Cancordia), Hong Kong (CUHK, HKUST and City U of HK), and the mainland China (Beijing University, Tsinghua University (both Applied Mathematics Department and School of Economics and Management Science), Chinese Academy of Sciences, Graduate School of the Chinese Academy of Sciences, Nankai University, Zhongshan University, Chongqing University, East China Normal University, Wuhan University, Shanghai University of Finance and Economics, Nanjing Normal University, Suzhou University, Yunnan Normal University, Anhui Normal University and Hainan Normal University).

TEACHING

I have taught 19 different courses which cover most of the topics related to actuarial science. Here is a list of the courses I have taught:

- Topics in Actuarial Science (Demography and Graduation), Sept. 1996;
- Stochastic Processes, Sept. 1997;
- Further Topics in Probability Modelling, Jan. 1997, Jan. 1998, Jan. 1999, Jan. 2000, Jan. 2001, Jan. 2002;
- Probability Modelling, Sept. 1998, Sept. 1999, Sept. 2000, Sept. 2001;
- Stochastic Modelling, Sept. 2013;
- Risk Theory, Jan. 1997, Jan. 1999, Jan. 2001, Sept. 2001;
- Credibility Theory and Loss Distribution, Jan. 2002, Sept. 2003, Sept. 2004, Sept. 2005, Sept. 2006, Sept. 2007;

- Life Contingencies, Jan. 2003;
- Linear Models and Forecasting, Jan. 1998, Jan. 2002;
- The Statistics of Investment Risk II, Jan. 2000;
- Stochastic Calculus with Financial Applications, Jan. 2003, Jan. 2004, Jan. 2005. Jan. 2008, Jan. 2009;
- Financial Economics, Sept. 2000, Sept. 2002, Sept. 2004, Sept. 2005, Sept. 2006, Sept.2007, Sept. 2008;
- Risk Analysis, Sept. 2003;
- Corporate Finance for Actuarial Science, Jan 2006, Jan 2007;
- Financial Economics I, Sept. 2009, Sept. 2010, 2011, 2012, 2013, 2014;
- Advanced Contingencies, Sept. 2009, Sept. 2010, 2011, 2012;
- Financial Economics II, Jan. 2010, Jan. 2014, Jan. 2015;
- Probability and Statistics: Foundations of Actuarial Science, Jan. 2013;
- Advanced Life Contingencies: Jan. 2015.

I organized an informal seminar course with my research students from 2000 to 2010 and from 2014 to now. The seminars had been based on some advanced books and research papers related to the students' research topics. Even during summer or holidays, the seminars had been continued.

Graduate Students Supervision

- K.L. Chu: 1996 - 1998, M.Phil. Thesis: "The CEV model: Estimation and Option Pricing".
- W.C. Hui: 1997-1999, M.Phil. Thesis: "Optimal Asset Allocation under GARCH Model".
- Tak Kuen Ken Siu: 1998-2001, Ph.D. Thesis: "Risk Measures in Finance and Insurance". Prof. Siu is a Professor at City University, London, UK now.
- Phillip S. C. Yam: 2000-2001, M.Phil. Thesis: "Algebraic methods on Some Problems in Finance". Dr. Yam is an Associate Professor at the Chinese University of Hong Kong now.
- C. S. Liu: 2000-2002, M.Phil. Thesis: "A Study of the Optimal Investment Strategy for Insurance Portfolio."

- Ka Chun Cheung: 2001-2004, Ph.D. Thesis: “Optimal Asset Allocation Problems under the Discrete-Time Regime-Switching Model”. Dr. Cheung is an Associate Professor at University of Hong Kong now.
- Andrew C. Y. Ng: 2002- 2004, M.Phil. Thesis: “On the Joint Distribution of Surplus Prior and After Ruin”. Dr. Ng is an Associate Professor at the Chinese University of Hong Kong now.
- K. B. Shiu: 2003-2006, M.Phil. Thesis: “Value at Risk and Expected Shortfall under a Model with Market and Credit Risk.”
- Jinxia Zhu: 2004 - 2008, Ph. D. Thesis: “Ruin Theory under Regime Switching Insurance Risk Models.” Dr. Zhu is a Senior Lecturer at University of New South Wales, Australia now.
- K. M. Kwan: 2005 - 2006, M.Phil Thesis: “Ruin Theory under a Threshold Insurance Risk Model.”
- Ping Chen: 2006 - 2009, Ph.D Thesis: “Asset liability management under regime switching models.” Dr. Chen is a Lecturer at Melbourne University, Australia now.
- Fei Lung Yuen: 2006-2010, Ph.D Thesis: “Pricing Options and Equity-Indexed Annuities in a Regime-switching Model by Trinomial Tree Method”, Dr Yuen is a Lecturer at Heriot-Watt University, UK now.
- L. F. Pang: 2007-2009, M.Phil. Thesis: “Semi-Static Hedging of Guarantees in Variable Annuities under Exponential Levy Models”.
- Q. Gong: 2006-2008, M.Phil Thesis: “Gerber-Shiu Function in Threshold Models”.
- Jin Dong: 2007-2009, M.Phil. Thesis: “On Upper Comonotonicity and Stochastic Orders”.
- You Beng Koh: 2008-2011, Ph.D. Thesis: “Bayesian Analysis in Markov Regime-Switching Models”, Dr. Koh is an Assistant Professor at University of Malaya, Malaysia now.
- Jun Fu: 2008-2012, Ph.D. Thesis: “Asset Pricing, Hedging and Portfolio Optimization”. Dr. Fu is working in JPMorgan now.
- Fangcheng Hao: 2006 - 2011, Ph.D Thesis: “Options Pricing and Risk Measures under Regime-switching Models”
- Jiaqin Wei: 2008-2012, Ph.D. (ECNU), Ph. D. Thesis: “Optimal Dividend Strategies under Markov Regime Switching Models”, Dr. Wei is a Postdoctoral Fellow at Macquarie University, Australia now.

- Yin Lin: 2009-2013, Ph.D. Thesis: "Some Results on BSDEs with Applications in Finance and Insurance.
- Ruichen Wang: 2010 - 2012, Master (ECNU), thesis: "Valuing Contingent Options When the Time-until-death Random Variable Follows Gamma Distribution".
- Guanqing Wang: 2012-2016, Ph.D. In progress.
- Kwok Chuen Wong: 2013 - 2016, Ph.D. In progress.
- Lu Chen: 2013 - 2017, ECNU, Ph.D. In progress.
- Xixuan Han: 2014 - 2018, Ph.D. In progress.
- Michael M. O. Chau: 2014 - 2017, Ph. D. In progress.

ADMINISTRATION

COMMITTEE MEMBER

- Member of the Board of the Faculty of Business and Economics, Oct,2014 - Jun, 2016.
- Member of Steering Committee of Hong Kong Consortium of Quantitative Finance.
- Co-opted member of Faculty Human Resource Committee (2009)
- Corresponding member of the MFE exam committee of SoA (2008 - 2010)
- Chairman of the Department Research Postgraduate Committee (DRPC), (2007-2009).
- Department representative in the Faculty Curriculum Review and Timetable Committee, (2007-2008).
- Department representative in the Faculty Higher Science Degrees Committee, (2007- now).
- Member of Department Management Committee (2007-now).
- Postgraduate Co-ordinator (2007- 2009).
- Duties for actuarial science programme syllabus (2007-now).

- Member of Departmental Research Committee (2002-now).
- Member of PG Working Group for Curriculum Sub-Committee (2003-now).
- Co-opted member of UG Working Group for Curriculum Sub-Committee (2003-now).
- Duties for Mainland China Affairs (Probability and Actuarial Science) (2002-now)
- Member of DRPC (department research postgraduate students committee) (2003-now).
- Panel of Oral Examination Chairpersons (2004 - now)
- The membership secretary of the Hong Kong Statistical Society (March 2003 - February 2005).
- The co-ordinator of visitor and seminar programs of the Department of Statistics and Actuarial Science from Jan. 1999 to August 2001.
- The organizer of the postgraduate seminars of the Department from Jan. 1999 to August 2001.
- Member of the Faculty Review Committee, July 1, 1999 to June 2004.
- Member of the Faculty Library Committee from July 1, 2001 to June 2003 and the Chairman of the Faculty Library Committee from September 2002 to June 2003.
- The Co-ordinator of Departmental Library from September 2001 to June 2003.
- Member of Actuarial Science admissions sub-committee (2003).
- Member of the Selection Committee of the Faculty for Prizes in Economics for the period July 1, 1997 to June 30, 1999.

CONFERENCE PROGRAM COMMITTEE:

- Member of Scientific Committee of the 19th International Congress on Insurance Mathematics and Economics, Liverpool, UK, 2015.
- Member of International Advisory Committee of the International Conference on Mathematics, Statistics, and Financial Mathematics 2014 (ICMSFM2014), 18-19 Nov. 2014, Kuala Lumpur, Malaysia.
- Chairman of Scientific Committee of the 18th International Congress of Insurance Mathematics and Economics, Shanghai, July 10-12, 2014.

- Co-chairman of International Gerber-Shiu Workshop - In Honor of Professor Elias S.W. Shiu's 65th Birthday, July 7 - 8, 2014, Hong Kong.
- Co-organizer of International Conference on Actuarial Science and Related Field, Nov. 2013, Shanghai, China.
- Member of scientific committee of the Samos annual conferences, Samos, Greece (since 2012).
- Member of Scientific Committee of the 17th International Congress on Insurance Mathematics and Economics, Copenhagen , Denmark, 2013.
- Chairman of Scientific Committee of the International Conference on Actuarial Risk and Related Topics, March 15 - 17, 2013, Nankai, Tianjing, China.
- Member of Program Committee of 2012 China International Conference on Insurance and Risk Management (CICIRM 2012) July 18-21, 2012, Qingdao, China.
- Chairman of Scientific Committee of the 16th International Congress of Insurance Mathematics and Economics, Hong Kong, June 28-30, 2012.
- Member of Program Committee and member of Organizing Committee of 2012 International Conference on Actuarial and Financial Mathematics, Chongqing, China, March 16-17, 2012.
- Member of Program Committee of 2011 China International Conference on Insurance and Risk Management, Tsinghua University, Beijing, China, July 24-27, 2011.
- Co-chair of Organizing Committee of International Conference on Actuarial Science and Related Fields, Haikou, China, March 4-6, 2011.
- Member of Scientific Program Committee of the International Conference on Applied Statistics and Mathematical Finance, Hong Kong Polytechnic University, Dec. 16-18, 2010.
- Member of Program Committee of the International Conference on Actuarial Science, Chongqing, China, June 3-5, 2010.
- Member of Organizing Committee of International Conference on Actuarial and Finance Risks, Shanghai, China, Jan. 4-5, 2010.
- Member of Scientific Committee of the 13th International Congress of Insurance Mathematics and Economics, Istanbul, Turkey, 2009.
- Co-organizer of A Conference on Mathematics of Finance and Related Applications, Jan. 3-4, 2008, Hong Kong.

- Vice Chairman of Scientific Committee of the Twelfth International Congress of Insurance Mathematics and Economics, Dalian, 2008.
- Member of Scientific Committee of the 2007 Shanghai-Hong Kong Insurance and Actuarial Forum, Shanghai, China, August 18-19, 2007.
- Member of Organizing Committee of the 2007 Shanghai-Hong Kong Insurance and Actuarial Forum, Shanghai, China, August 18-19, 2007.
- Member of Organizing Committee of the 2006 Shanghai-Hong Kong Insurance and Actuarial Forum, Shanghai, China, June 15-17, 2006.
- Member of Organizing Committee of The Second International Conference on Risk Management & The Third International Conference on Financial System Engineering, Guang-Zhou, China, December, 9-12, 2005.
- Member of Organizing Committee of Conference on Probability with Applications to Finance and Insurance: A joint HKU-HKUST-CUHK-Fudan meeting celebrating Professor Tze Leung Lai's Sixtieth Birthday, Hong Kong, Dec. 2005.
- Member of Paper Review Committee for the conference "Stochastic Calculus and its applications to Quantitative Finance and Electrical Engineering", Calgary, Canada, July 2005.
- Co-organizer (with Prof. Jezef Teugels) of the Eurandom Workshop on Risk Measures and Risk Management, EURANDOM, The Netherlands, May 2005.
- Co-organizer (with Prof. T. L. Lai and Dr. S. P. Yung) of workshop on Probability, Finance and Insurance, Hong Kong, December 2004.
- Member of Organizing Committee of Conference on Insurance Mathematics, Ruin Theory and Monte Carlo Methods, Hong Kong, June, 2004.
- Member of Organizing Committee of Workshop on Control Theory and Applications, Hong Kong, December, 2003.
- Co-organizer of the Workshop in Probability with Applications to Finance and Insurance, July 15-17, 2002, Hong Kong.
- One of the two members in the Conference Secretariat of the International Conference on Applied Statistics, Actuarial Science and Financial Mathematics, Hong Kong, December, 2002.
- Member of the Program Committee for the International Workshop on Statistics in Finance, Hong Kong, June, 1999.
- Member of the Program Committee for the Symposium on Financial Risk and Statistics, Hong Kong, June, 1999.