Short CV of Hailiang Yang

HAILIANG YANG

Professor
Department of Statistics and Actuarial Science
The University of Hong Kong
Pokfulam Road, Hong Kong
Telephone: (852) 2857-8322 Fax: (852) 2858-9041
E-mail: hlyang@hkusua.hku.hk

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 DESIGNATION:

1994 Associate of the Society of Actuaries

SELECTED PUBLICATIONS

1. F.L. Yuen and H. Yang, "Pricing Asian Options and Equity-Indexed Annuities with Regime-switching by Trinomial Tree Method", *North American Actuarial Journal*, Accepted.

2. H.U. Gerber, E. S. W. Shiu and H. Yang, "An Elementary Approach to Discrete Models of Dividend Strategies", *Insurance; Mathematics and Economics*, To appear.

3. 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, 2009.

4. R.J. Elliott, T.K. Siu and H. Yang, "Filtering a Markov Modulated Random Measure", *IEEE Transactions on Automatic Control*, Vol. 55, No. 2, 2010.

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

6. 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, 2008.

7. 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, 2008.

8. 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, 2008.

9. 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, 2008.

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

11. 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, 2008.

12. 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, 2007.

13. 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, 2008.

14. 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, 2007.

15. 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.

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

17. 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.

18. 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, 2006.

19. A. C. Y. Ng and H. Yang, "On the joint distribution of surplus prior and immediately after ruin under a Markovian regime switching model" *Stochastic Processes and Their Applications*, Vol. 116, No. 2, 244-266, 2006.

20. 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.

21. 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.

22. 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.

23. 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, 2005.

24. 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, 2004.

25. 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, 2005.

26. R. Wang, H. Yang and H. Wang, “On the Distribution of Surplus Immediately after Ruin under Interest Force and Subexponentia Claims”, *Insurance; Mathematics and Economics*, Vol. 35, No. 3, 703-714, 2004.

27. T. K. Siu, H. Tong and H. Yang, “On Pricing Derivatives under GARCH Models: A Dynamic Gerber-Shiu’s Approach”, *North American Actuarial Journal,* Volume 8, No. 3, 17-31, 2004.

28. K. C. Cheung and H. Yang, “Asset Allocation with Regime-Switching: Discrete-Time Case”, *ASTIN Bulletin*, Vol. 34, No. 1, 99-111, 2004.

29. L. Sun and H. Yang, “On the Joint Distributions of Surplus Immediately before Ruin and the Deficit at Ruin for Erlang(2) Risk Processes”, *Insurance; Mathematics and Economics*, Vol. 34, No. 1, 121-125, 2004.

30. C. S. Liu and H. Yang, “Optimal investment for an insurer to minimize its probability of ruin”, *North American Actuarial Journal,* Vol. 8, No. 2, 11-31, 2004.

31. 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.

32. H. Yang, “Ruin Theory in a Financial Corporation Model with Credit Risk”, *Insurance; Mathematics and Economics*, Vol. 33, No. 1, 135-145, 2003.

33. W. S. Chan, H. Yang and L. Zhang, "Some Results on Ruin Probability in a Two Dimensional Risk Model", *Insurance: Mathematics and Economics*, Vol. 32, No. 3, 345-358, 2003.

34. K.W. Ng, Q.H. Tang, J. A. Yan and H. Yang, "Precise Large Deviations for the Prospective-Loss Process", *Journal of Applied Probability*, Vol 40, No. 2, 391-400, 2003.

35. K. W. Ng, Q.H. Tang and H. Yang, "Maxima of Sums of Heavy-tailed Random Variables", *ASTIN Bulletin*, Vol. 32, No. 1, 43-55, 2002.

36. P. P. Boyle, T. K. Siu and H. Yang, "Risk and Probability Measures", *Risk*, p. 53 - 57, 2002.

37. H. Yang and L. Zhang. "On the Distribution of Surplus Immediately after Ruin under Interest Force", *Insurance: Mathematics and Economics,* Vol. 29, No. 2, 247-255, 2001.

38. T.K. Siu, H. Tong and H. Yang, "Bayesian Risk Measure for Derivatives by Random Esscher Transform", *North American Actuarial Journal,* Vol. 5, No. 3, 78-91, 2001.

39. H. Yang, "An Integrated Risk Management Method: VaR Approach", *Multinational Finance Journal*, Vol. 4, No. 3 & 4, 201-219, 2000.

40. H. Yang and L. Zhang. "The Joint Distribution of Surplus Immediately before Ruin and the Deficit at Ruin under Interest Force", *North American Actuarial Journal,* Vol. 5, No. 3, 92-103, 2001.

41. H. Yang and L.Zhang, "Spectrally Negative Lévy Processes with Applications in Risk Theory", *Advances in Applied Probability*, Vol. 33, No. 1, 281-291, 2001.

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

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

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

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

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

47. 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, 269-286, 1995.

48. 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, 51 - 78, 1994.

49. 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, 85-99, 1993.

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

EDITORIAL APPOINTMENTS:

- Associate editor of *Insurance: Mathematics and Economics*, 2003 - now.
- Associate editor of *Stochastics: An International Journal of Probability and Stochastic Processes*, 2008-now.
- Associate editor of *Acta Mathematicae Applicatae Sinica* , 2007 - now.
- Section Editor of the Encyclopedia of Quantitative Finance.

SOME PLENARY AND INVITED TALKS:

- Plenary speaker (1 hour) at the International Actuarial Meeting on Risk Measures and Solvency, Antalya, Turkey, May, 20-24, 2007.
- Plenary speaker (1 hour) at the Tenth International Congress of Insurance Mathematics and Economics, Leuven, Belgium, July 18 to July 20, 2006.
- Plenary speaker (1 hour) at the Twelfth International Congress on Computational and Applied Mathematics (ICCAM 2006), Leuven, Belgium, July 10 to July 14, 2006.
- Invited speaker (40 minutes) at The Asian Mathematical Conference 2009, June 22-26, 2009, Kuala Lumpur, Malaysia.
- Invited speaker (1 hour) at the Recent Developments in Financial and Insurance Mathematics and the Interplay with the Industry, Oberwolfach, Germany, February 2007.

GRADUATE STUDENTS SUPERVISION:

Graduated Ph.D students: Ken Siu, Ka Chun Cheung, Jinxia Zhu, Ping Chen; M.Phil students: K.L. Chu, W.C. Hui, S. C. Yam, C. S. Liu, C. Y. Ng, K. B. Shiu, K. M. Kwan, L. F. Pang, Q. Gong, J. Dong.

Current Ph.D. Students: F. L. Yuen, Y. B. Koh, J. Fu, F. Hao, Y. Lin, and J. Wei; M.Phil student: C. M. Yuen.