

Brief CV of Wai Keung LI

NAME : LI, Wai Keung

EDUCATION: Ph.D., 1981, University of Western Ontario; M.A., 1976, York (Canada); B.Sc., (First Class with Distinction) 1975, York (Canada).

PRESENT POSITION:

Chair of Statistics, Department of Statistics & Actuarial Science, University of Hong Kong, since 2000 (joined HKU as Lecturer in 1983).

Head, Department of Statistics and Actuarial Science, University of Hong Kong, 1997-1999; 2006-2008; Sept., 2011-present.

FIELD OF MAJOR RESEARCH INTERESTS:

Time Series Analysis, Stochastic Analysis, Financial and Insurance Risk Management, Environmental Statistics.

ACADEMIC AWARDS AND HONOURS:

Outstanding Research Student Supervisor Award HKU (1999)

Outstanding Researcher Award HKU (2001)

Croucher Foundation Senior Research Fellow (2003)

Elected Member, International Statistical Institute (1991)

Elected Fellow, American Statistical Association (2003)

Elected Fellow, Institute of Mathematical Statistics (2006)

Honorary Member, Hong Kong Statistical Society (2009)

Long Service Award, University of Hong Kong (2009)

Outstanding Service Award, International Chinese Statistical Association (2009)

SELECTED PUBLICATIONS:

Book:

1. “Diagnostic Checks in Time Series”, Chapman & Hall, 2004

Selected Journal Papers:

1. “Testing for Linear Time Series Models against Its Threshold Extension”, 2011, *Biometrika* (with G. Li)
2. “Modified Correlational Entropy Estimation for a Noisy Chaotic Time Series”, 2010, *Chaos* (with A.W. Jayawardena and P. Xu)
3. “A Threshold Approach for Peak-Over-Threshold Modeling with Maximum Product of Spacings”, 2010, *Statistica Sinica* (with T.S. T. Wong)
4. “Least Absolute Deviation Estimation for Fractionally Integrated Autoregressive Moving Average Time Series Model with Conditional Heteroscedasticity”, 2008, *Biometrika* (with G. Li)

5. "Testing for Threshold Moving Average with Conditional Heteroscedasticity", 2008, *Statistica Sinica* (with G. Li)
6. "A Method of Estimating the Noise Level in a Chaotic Time Series", 2008, *Chaos* (with A.W. Jayawardena and P. Xu)
7. "A Time-Series Risk Model with Constant Interest for Dependent Classes of Business", 2007, *Insurance: Mathematics and Economics* (with Z. Zhang and K.C. Yuen)
8. "The Gerber-Shiu Expected Discounted Penalty Function for Risk Processes with Interest and a Constant Dividend Barrier", 2007, *Insurance: Mathematics and Economics* (with K.C. Yuen and G. Wang)
9. "Threshold Variable Selection Using Nonparametric Methods", 2007, *Statistica Sinica* (with Y. Xia & H. Tong)
10. "Diagnostic Checking for Time Series Models with Conditional Heteroscedasticity Estimated by the Least Absolute Deviation Approach", 2005, *Biometrika* (with G. Li)
11. "Model Selection for Prediction of Hydrological Time Series", 2002, *Journal of Hydrology*(with A. W. Jayawardena and P. Xu)
12. "An Adaptive Estimation of Dimension Reduction Space (with discussion)," 2002, *J. Royal Stat. Soc. B* (with Y. Xia, H. Tong & L. Zhu)
13. "Estimation for Partially Nonstationary Multivariate Autoregressive Models with Conditional Heteroscedasticity," 2001, *Biometrika* (with S. Ling & H. Wong)
14. "On a Mixture Autoregressive Conditional Heteroscedastic Model," 2001, *J. Amer. Stat. Assoc.* (with A. C. S. Wong)
15. "On a Mixture Autoregressive Model," 2000, *J. Royal Stat. Soc. B* (with A. C. S. Wong)
16. "On Single-Index Coefficient Regression Models," 1999, *J. Amer. Stat. Assoc.* (with Y. Xia)
17. "Limiting Distribution of Maximum Likelihood Estimators for Unstable ARMA Time Series with GARCH errors," 1998, *Annals of Statistics* (with S. Ling)
18. "On Fractionally Integrated Autoregressive Moving Average Time Series Models with Conditional Heteroscedasticity," 1997, *J. Amer. Stat. Assoc.* (with S. Ling)
19. "On a Multivariate Conditional Heteroscedastic Model", 1997, *Biometrika*(with H. Wong)
20. "On a Double Threshold Autoregressive Heteroscedastic Time Series Model, 1996, *Journal of Applied Econometrics*(with C. W. Li)
21. "On the Squared residual Autocorrelations in Non-linear Time Series with Conditional Heteroskedasticity", 1994, *Journal of Time Series Analysis*(with T. K. Mak)
22. "Time Series Based on Generalized Linear Models: some further results", 1994, *Biometrics*
23. "On the Asymptotic Standard Errors of Residual Autocorrelations in Nonlinear Time Series Modelling", 1992, *Biometrika*
24. "Some Lagrange Multiplier Tests for Seasonal Differencing", 1991, *Biometrika*
25. "Testing Model Adequacy for Some Markov Regression Models for Time Series," 1991, *Biometrika*
26. "Robust Multiple Time Series Modelling", 1989, *Biometrika*(with Y. V. Hui)
27. "A Goodness of Fit Test in Robust Time Series Modelling," 1988, *Biometrika*

28. "Fractional Time Series Modelling," 1986, *Biometrika* (with A. I. McLeod)
29. "Diagnostic Checking ARMA Time Series Models Using Squared-Residual Autocorrelations", 1983, *Journal of Time Series Analysis* (with A. I. McLeod)
30. "Distribution of Residual Autocorrelations in Multivariate ARMA Time Series Models", 1981, *Journal of the Royal Statistical Society, Series B* (with A. I. McLeod)

PROFESSIONAL ACTIVITIES:

Chinese International Statistical Association: Board of Directors of ICOSA, 2006-2007; Program Committee (2002-2007); Chairman, Organizing Committee of the 5th ICOSA International Conference, Hong Kong, (Aug. 2001).

President, Hong Kong Statistical Society (2000-2001, 2001-2002, 2002-2003).

Chairman, Professional Affairs Committee, Hong Kong Statistical Society, from 2003.

Member, Statistical Advisory Board, HKSAR Government, June 2002 - May 2008.

Member, Membership Elections Committee, International Statistical Institute, from Feb. 2010.

Member, International Statistical Institute Committee on the History of Statistics, from Oct. 2010.

Council member, International Society for Business and Industrial Statistics, Sept. 2011-Aug. 2013

Panel member, Physical Science Panel, Research Grants Council, Hong Kong, Nov. 2008 – June 2013

SELECTED CONSULTATION EXPERIENCE:

- (1) A US\$37,000 contract from Microsoft to develop software on financial risk management for the C# environment, 2004-2005 (with P Yu).
- (2) A \$600,000 contract with Hong Kong Exchanges and Clearing Ltd. on risk management, 2002-2003: margin levels, collateral requirements and reserve size.
- (3) A \$200,000 contract with Hong Kong Monetary Authority for developing Economic & Financial Indicators, 2002-2003 (with P Yu and M Tse).
- (4) Development of a Personal Banking System for the Bank of China Group. A one million dollar project completed in 1998 and launched in November 1999 (with K Lam, P Yu and H Tong).