# Wei-Fang Niu

## Education

PhD (Statistics), National Chiao Tung University (2001 – 2008)
MSc (Statistics), National Chiao Tung University (1994 – 1996)
BSc (Physics), National Tsing Hua University (1987 – 1991)

## Academic Employment

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|---|---|
| 2011.9 – present | Postdoc Research, Institute of Bioinformatics and System Biology, NCTU. |
| 2010.9 – 2011.8 | Research Fellow, Risk Management Institute, National University of Singapore, Singapore. |
| 2009 – 2010 | Adjunct Assistant Professor,<br>- Dept of Quantitative Finance, NTHU;<br>- Graduate Institute of Finance, NCTU. |
| 2008 – 2010 | Adjunct Assistant Professor, Department of Finance, Fen Chia University (FCU). |
| 2007 – 2008 | Adjunct Instructor, Department of Quantitative Finance, NTHU. |
| 2006 – 2008 | Adjunct Instructor, Graduate Institute of Finance, NCTU. |

## Industrial Experience

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|---|---|
| 2006.4 – 2009.12 | Chief Investment Officer, G5 Capital management |
| 1998.2 – 2001.6 | Engineer, Quality Assurance, United Microelectronics Co. |
| 1996.6 – 1998.1 | Engineer, Quality Assurance, Cyntec Co. |

## Fields of interest

Financial Econometrics
Derivative Pricing

## Courses

Global Dynamic Asset Allocation (NTHU, FCU)
Quantitative Risk Management (NTHU)
Advanced Financial Econometrics (NCTU)
Quantitative Asset Allocation and Risk Management (FCU)
Applied Financial Engineering (NCTU)
Applied Financial Statistics (NTHU)

**Publications**

**A. Journal papers**

Hsu, C.S., Hsu, S. J., Chen, H. C., Tseng, T. C., Liu C. H., Niu, W. F., Jeng, J., Liu, C. J., Lai, M. Y., Chen, P. J., Kao, J. H., Chen, D. S., 2011. Association of IL28B gene variations with mathematical modeling of viral kinetics in chronic hepatitis C patients with IFN plus ribavirin therapy. *Proceedings of the National Academy of Sciences*, 108, 3719-3724.

Chen, C. W. S., Lee, J. C., Lee, S. Y., and Niu, W. F., 2004. Bayesian estimation for time series regressions improved with exact likelihoods, *Journal of Statistical Computation and Simulation*, 74: 727 - 740.

Lee, J. C. and Niu, W. F., 1999. On an Unbalanced Growth Curve Model with Random Effects and AR(1) Errors from a Bayesian and the ML Points of View, *Journal of Statistical Planning and Inference*, 66: 41-55.

**B. Working papers**

Maximum likelihood Estimation of the Continuous Time Stochastic Volatility Models with Partially Observed GARCH Models. (under review)

Measuring the Collective Correlation of Stock Market. (With Lu, H. H.-S.).

How to Visualize the Risk Structures of the Financial Markets? (With Wang, K. Lin, L. S. and Yu, Y.)

Computing Option Prices under Stochastic Volatility Models with the Partially Observed GARCH as an Auxiliary.

**C. Book chapters**

Jeng, J., Niu, W. F., Wang, N. J. and Lin, S. S., 2008. Canonical Dynamics Mechanism of Monetary Policy and Interest Rate, in: *Applied quantitative finance* (2nd ed.), W. Hardle, N. Hausch and L. Overbeck, eds, Springer, , 417-442.

**D. Conference presentations**

Niu, W. F. and Lu, H. H.-S. Modeling Collective Correlation Dynamics of the Stock Markets. 2011 Asian Meeting of the Econometric Society, Seoul, 08/11/2011.

Lai, V. S., Niu, W. F. and Ye, X. Bank Regulatory Closure Policies and Economic

Cycles, Mathematical Finance Days, Montréal, 05/09/2011.

Niu, W. F., Wang, K and Jeng, J. Geometric Visualization of Global Dynamic Asset Allocation, the 3rd NCTU International Finance Conference, Hsinchu, 01/15/2010.

Wang, N. J., Lin, S. S., Niu, W. F. and Wang, K. A Regulation Framework of Managing Speculation Risk on Trading Derivatives, Wall Street Lectures, International Symposium on Financial Engineering and Risk Management 2008, Shanghai, 06/08/2008.

Jeng, J., Niu, W. F., Wang, N. J. and Lin, S. S. Canonical Dynamics Mechanism of Monetary Policy and Interest Rate, International Symposium on Financial Engineering and Risk Management 2008, Shanghai, 06/10/2008.

Wang, N. J., Lin, S. S., Niu, W. F. and Wang, K. A Regulation Framework of Managing Speculation Risk on Trading Derivatives, the 6th NTU International Conference on Economics, Finance and Accounting, Taipei, 05/23/2008

**E. Comments and opinions**

Niu, W. F.. 2008. Financial Engineering – An Alchemy Coated with Science, *Physics Bimonthly*, 30: 243-246.

**Honors**

Chinese Statistical Association, Thesis award, 1997.

Phi Tau Phi Scholastic Honor Society of the Republic of China, Honorary Member, 2008.

**Referee**

Journal of the Chinese Statistical Association