Qian Chen

CONTACT INFORMATION	Room 323, Building C HSBC Business School, Peking University University Town, Nanshan District Shenzhen, 518055, China	*Phone:* +86 755 21534063 *E-mail:* qianchen@phbs.pku.edu.cn

OBJECTIVE

To develop an academic career in the field of computational and financial econometrics.

EDUCATION

The University of Sydney, Sydney, NSW Australia

Ph.D., Operations Management and Econometrics, Business School, October 2011
- Thesis Topic: *Bayesian Methods for Estimation, Inference and Forecasting of Flexible Models for Value-at-Risk and Tail Conditional Expectations*
- Supervisor: Associate Professor Richard Gerlach

The Hong Kong University of Science and Technology, Hong Kong

Master of Science, Department of Economics, School of Business and Management, July 2006
- Thesis Topic: *Banking Analysis for Small and Medium Hong Kong Banks*

The Wuhan University, Wuhan, China

Bachelor of Science, School of Mathematics and Statistics, July 2003
- Thesis Topic: *Double Moral Hazard Problem in Venture Capital Finance*

RESEARCH EXPERTISE

Computational and financial econometrics

Bayesian statistics

Financial risk forecasting and management

Data analysis

Markov chain Monte Carlo estimation

Time series econometrics

KEY SKILLS

Significant experience in time series data analysis, statistical computation, Bayesian statistics, and financial risk modelling and forecasting.

Extensive skills in MATLAB and SAS with experience in model coding, financial models, statistics, data process, and graph

Confident user of TeX (LaTeX, BibTeX), and most common productivity tools for Windows and OS X

Demonstrated writing and presentation skills

Proven ability to work independently as well as collaboratively in a team

Strongly motivated and determined to see the project through to an excellent end

MATHEMATICAL EXPERTISE	Mathematical Modeling, Probability Theory, Multivariate Statistics Analysis, Real and Complex Analysis, Linear Algebra and Analytic Geometry, Numerical Analysis

PROFESSIONAL EXPERIENCE

Peking University HSBC Business School, Shenzhen, China

Assistant Professor   2012–current
- Instructor for Applied Econometrics.

  - Fall 2012

  - Responsible for 4 hour lecture and supervision where first-year postgraduate students implement econometric methodology in real world business and economic issues.

  - Developed hundreds of pages of supplementary course material.

  - Graded students term papers.

The University of Sydney, Sydney, NSW Australia

Research Assistant for the project in the electricity hedging models for the Australian market   2010–2012
- Generating descriptive analysis of the weekly spot and future electricity price for the state of New South Wales.

- Participating in designing the jump model for the price sparks.

- Designing adaptive Kalman Filter algorithm for parameter estimation.

- Regularly summarizing research progress and writing report.

- Closely working with the supervisor and team members to transform the concepts into models.

- Realizing the computational schemes and the model in Matlab and carrying out simulation experiments.

Research Assistant in the Discipline of Operations Management and Econometrics, specializing in financial time series analysis   2008–2010
- Analyzed large scale financial time series data sets.

- Developed and improved financial risk forecasting models, particularly the Value-at-Risk and the Expected Shortfall models.

- Designed and enhanced the efficiency of computational algorithms, such as adaptive Markov chain Monte Carlo sampling scheme.

- Derived novel backtesting methods for evaluating risk models.

- Programmed for the model and realization of Monte Carlo algorithm in Matlab.

- Performed the simulation study, applied models to stock return and exchange rate return series, and conducted pre- and post-crisis analysis for the GFC.

- Validated risk models using a variety of formal and non-formal testing methods.

- Effectively communicated and collaborated with the supervisor and co-authors.

- Produced publishable papers on the projects.

Tutor for ECMT 3150: The Econometrics of Financial Markets   2010
- Instructed second year and third year students to develop solid techniques in Matlab with application of financial econometric models

Tutor for ECMT 3130: Forecasting for Economics and Business   2008–2009
- Instructed second year and third year students to develop solid techniques in SAS with application of business statistic models

Tutor for ECMT 2120: Analysis of Discrete Choice Data   2007
- Carried out workshops on theories and practice of discrete choice models for economics and business

Tutor for ECMT 1010 & 1020: Business Statistics   2007 –2008
- Carried out workshops on theories and practice of statistical analysis for economics and business
- Instructed first year students to develop solid analytical techniques in Excel

A human resource consulting company in China

Assistant Consultant   2006–2007
- Analyzed and compiled background studies of the industries, markets and competitors, offered reliable information for senior consultants
- Conducted cold calls and searched for potential candidates in the industry or related areas

AWARDS   China Scholarship Council
- Chinese Government Award for Outstanding Self-financed Students Abroad, 2011

Statistical Society of Australia Inc., New South Wales Branch
- Award for Excellence in Postgraduate Research, 2010

The University of Sydney
- PreDoc Funding Award, 2011
- The Faculty of Economics and Business International Students Scholarship, 2007–2010

The Wuhan University
- The School of Mathematics and Statistics Award for Outstanding Students, 2000–2002
- University Outstanding Students Award, 1999-2000

PUBLICATIONS

Chen, Q., Gerlach, R., "The two-sided Weibull distribution and forecasting financial tail risk", under the second review of *International Journal of Forecasting*, November 2012.

Chen, Q., Gerlach, R., and Lu, Z., Forthcoming, "Bayesian Value-at-Risk and expected shortfall forecasting via the asymmetric Laplace distribution", *Computational Statistics and Data Analysis*, 56(11): 3498-3516 (2012).

CONFERENCE TALKS

Chen, Q., "Bayesian Methods for Estimation, Inference and Forecasting of Flexible Models for Value-at-Risk and Tail Conditional Expectations", *the International Symposium on Business and Industrial Statistics 2012*, Bangkok, Thailand, 20th June 2012.

Chen, Q., "Forecasting financial tail risk via a conditional partitioned distribution", *31th International Symposium on Forecasting*, Prague, Czech Republic, 27th June 2011.

Chen, Q. and Gerlach, R., "Asymmetric volatility and dynamic skewness in Bayesian value-at-risk and expected shortfall forecasting model", *Australian Statistical Conference 2010*, Fremantle, Australia, 8th December 2010.

Chen, Q. and Gerlach, R., "Impacts of asymmetric volatility and dynamic skewness on Bayesian forecast for Value-at-Risk and expected shortfall", *30th International Symposium on Forecasting*, San Diego, United States, 22nd June 2010.

Chen, Q. and Gerlach, R., "Expected shortfall and Value-at-Risk via the asymmetric Laplace distribution", *Ninth Valencia International Meeting on Bayesian Statistics*, Benidorm, Spain, 3rd June 2010.

GRADUATE AND UNDERGRADUATE RESEARCH

Chen, Q., "Organizational Transformation & Business Performance of Information Technology Industry", Hong Kong University of Science and Technology, May 2006.

Chen, Q., "Cross-country Study of Lung Cancer's Inducing Factors", Hong Kong University of Science and Technology, November 2005.

SERVICE

Peking University HSBC Business School, Shenzhen, China

Member of Curriculum Committee	2012–current
Member of Research Committee	2012–current