



Newsletter 中大統訊

香港中文大學
Department of Statistics, The Chinese University of Hong Kong

Message from the Chairman

Dear Alumni and Friends,

Without realizing it we are already publishing the 6th issue of the Newsletter of the Department of Statistics. I am very honored to be involved in this process and I hope we have established a useful platform to share this department's achievements.

Without a doubt, 2010 was a year of stiff challenges for the Chinese University in general and the Department in particular. With the ongoing crisis in the Euro zone, the global economy is facing unprecedented amount of uncertainty. In the midst of this difficulty, I would like to recapitulate the role of statistics that was mentioned in the last issue.

Uncertainty is inescapable: randomness, measurement error, deception, and incomplete or missing information complicate all our lives. Statistics is the science and art of making predictions and decisions in the face of uncertainty. Statistical issues are central to big questions in public policy, law, medicine, industry, computing, technology, finance, and science. Indeed, the tools of Statistics apply to problems in almost every area of human activity where data is collected.

With the devotion and dedication of faculty, staff, students and alumni alike, the department is progressing ahead on both the research and teaching fronts. On the research front, I am deeply flattered and humbled to receive the 2012 Econometric Theory Multa Scripsit Award by the Cambridge University Press. Further details about this award can be found at <http://korora.econ.yale.edu/et/award/award.htm>. On the teaching front, we are very happy to report that Professor Wai-Yin Poon was awarded the Inaugural UGC Award for Teaching Excellence in 2011. This is a truly distinctive honor for Professor Poon and further information can be found at http://www.cpr.cuhk.edu.hk/en/press_detail.php?id=1120. In addition, Professor Siu-Hung Cheung received the VC Exemplary Teaching Award this year.

On the personnel front, Professor Sik-Yum Lee retired in August. He is now serving in the capacity of Emeritus Professor of Statistics in the department. Please join me in wishing him a healthy and happy retirement. In order to spend more time with her daughter, Ms. Grace Chan is now working for us on a part-time basis. A new Executive Officer, Ms. Irene Cheng joined the department in August. You may find more information about her on page 3. With concerted efforts, two of our students were selected to participate in an internship programme offered by the Ernst and Young. The two students were then hired by the company as full-time staff. They would like to share with us their experience as an intern. To learn more please turn to page 7 and page 8.

I sincerely hope you will enjoy reading this issue. If you have any comments regarding this newsletter, please do not hesitate to let us know. Wishing you all a healthy and prosperous 2012!

Sincerely,

Ngai Hang Chan
Chairman and Professor of Statistics

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Professor Chan Ngai-hang awarded Econometric Theory Multa Scripsit Award

Prof. Chan Ngai-hang received the Econometric Theory Multa Scripsit Award for his cumulative contributions to advancing econometrics research and his sustained publishing efforts in the *Econometric Theory* published by the Cambridge University Press. His work is known to have helped drive the growth of the subject, now a vibrant research area in economics.

A world renowned statistician, Professor Chan is not only a prolific writer, but is also committed to serving the community. He is an appointed member of both the Risk Management Committee of Hong Kong Exchanges and Clearing Limited, and the Statistics Advisory Board for the Commissioner for Census and Statistics, HKSAR. His current research interests include time series, finance and econometrics, risk management and statistical finance, oceanography and inference for stochastic processes.

Congratulations to Professor Chan.



Prof. Chan Ngai-hang



Professor Poon Wai-yin awarded UGC Award for Teaching Excellence



Prof. Poon Wai-yin

Professor Poon sees it as her task to engage and motivate every student, helping him/her to build confidence and capability.

We sincerely congratulate Professor Poon on her remarkable achievement.

Professor Poon Wai-yin was conferred the inaugural UGC Award for Teaching Excellence by the University Grants Committee (UGC) in recognition of her outstanding teaching performance and achievements.

Professor Poon adopts a student-centred approach and tailors teaching strategy to the nature of the class and attends to diverse learning needs and styles. She uses various interactive techniques to arouse students' learning interest, and even involves students in formulating assessment criteria to instil a sense of ownership. Much loved by her students,



Professor Cheung Siu-hung awarded the Faculty Teaching Award & the Vice-Chancellor's Exemplary Teaching Award

Professor Cheung Siu-hung was awarded the 2010 Vice-Chancellor's Exemplary Teaching Award of the Chinese University of Hong Kong and the Faculty Teaching Award of Faculty of Science.

Congratulations to Professor Cheung.



Prof. Ng Cheuk-yiu, Dean of Science(left)
Prof. Cheung Siu-hung(right)



Personalia



Professor Lee Sik-Yum has been awarded the title of emeritus professor with effect from 1 August 2011.



Miss Irene Cheng Hiu-Lin has joined the department as Executive Officer since August 2011.



Dr. Ng Chi Tim has joined the department as Instructor since August 2011. Dr. Ng received his Ph.D. in Statistics, M.Phil. and B.Sc. in Risk Management Science from the CUHK.



Miss Irene Cheng

Admission Highlights for the Academic Year 2011-12

Programmes	STAT	RMSC	QFRM	MPhil in Statistics	MPhil in RMS	MSc in Data Science and Business Statistics	MSc in Risk Management Science	PhD in Statistics
Intake	52	50	30	3	4	38	34	9

Recipients of Advantage Trust Statistics Scholarship

Scholarships have been given to award academic outstanding students.

Name	Major	Year	Amount (HK\$)
Mr. Chan Kin Wai	STAT	1st	\$10,000
Mr. Chan Pak Sum	RMSC	1st	\$10,000
Mr. Cheung Man Cheong Wilson	STAT	3rd	\$2,000
Mr. Hui Tsz Shing	STAT	2nd	\$2,000
Mr. Law Hong Man	RMSC	1st	\$10,000
Mr. Lau Yuk Fai	STAT	3rd	\$2,000
Ms. Lee Mei Wah	STAT	1st	\$10,000
Mr. Lun Ming Chung	STAT	3rd	\$2,000
Ms. Tang Tsz Ki	RMSC	2nd	\$2,000
Mr. Tang Tsz Wang	RMSC	2nd	\$2,000
Ms. Wang Weiyin	RMSC	4th	\$2,000
Mr. Wong Wing Nung	STAT	1st	\$10,000
Mr. Wong Hoi Chun	STAT	2nd	\$2,000
Mr. Yuen Wa Tak	STAT	2nd	\$2,000
Ms. Zhou Rong	RMSC	4th	\$2,000

DEPARTMENT NEWS

Risk Management Science Students Win the 2011 DBS-SMU Quantitative Finance Challenge

A team of four students from the Risk Management Science (RMSC) programme claimed the championship at the 2011 DBS-SMU Quantitative Finance Challenge organized by the Singapore Management University and the Q.E.D. Quantitative Finance Society of Singapore in October 2011.

The DBS-SMU Quantitative Finance Challenge - currently in its fifth-year running - pits students from tertiary institutions against one another in two rounds of mentally grueling contests in the field of financial derivatives and risk management. This is the first year the organizer invited tertiary institutions from Hong Kong to join the challenge.

The preliminary round is an hour test comprising 40 MC questions. The top eight scorers in each region proceeded

to the final round, including five RMSC students. The finals consisted of a case study of pricing and hedging of a derivative product. Sixteen finalists, divided into four teams, were given the case one week in advance. The winning team, composed of Chung Shing Fung, Ngai Ki Sum, Wang Weiyin and Tang Tsz Wang, all students of the RMSC Programme at CUHK, made an impressive presentation of the case solution to the panel of judges by applying risk management and finance knowledge and offering recommendations for improving the product. The winning team was awarded a cash prize of S\$10,000.

To learn more about the 2011 DBS-SMU Quantitative Finance Challenge, please visit:

<http://dbs-smuchallenge.qedsociety.org/>



Members of the winning team (from 2nd left to 5th left) are Wang Weiyin, Tang Tsz Wang, Chung Shing Fung and Ngai Ki Sum of the RMSC Programme.

SEMINARS

The department has organized a number of seminars. Some of them are listed below. For seminar abstracts or past seminars, please visit our website at <http://www.sta.cuhk.edu.hk/Dept/Seminar/Seminar.htm>

DATE	Speaker	Title	
November 15, 2011	Dr. Zeng Tiejong Hong Kong Baptist University	Dictionary Learning for Gaussian-Impulse Noise Removal	1 Professor TSUI Kwok Leung
November 8, 2011	Dr. Xinghua Zheng The Hong Kong University of Science and Technology	On the Estimation of Integrated Covariance Matrices of High Dimensional Diffusion Processes	
October 18, 2011	Dr. Yingying Li The Hong Kong University of Science and Technology	Vast Volatility Matrix Estimation using High Frequency Data for Portfolio Selection	2 Professor WU Wei Biao
October 11, 2011	Dr. Erjia Ge The Chinese University of Hong Kong	Using Knowledge Fusion to Map Avian Influenza H5N1 in East and Southeast Asia	
September 20, 2011	Dr. Christian Rau Monash University	The Stochastic Radon Transform and Classification for Rotations with Symmetry Properties	3 Professor PENG Xian-Hua
August 16, 2011	Dr. Henry Kwai-Hung Lam Boston University	Efficient Sampling for Large Scale Stochastic Systems	
July 21, 2011	Dr. Jingchen Liu Columbia University	On the Stationary Distribution of An Incompatible Gibbs Sampler - The Analysis of Multiple Imputations Via Chained Equations (MICE)	4 Dr Tingting Zhang
May 3, 2011	Professor Katsumi Shimotsu Hitotsubashi University	Local Quadratic Approximation in Finite Mixture Models and Testing the Number of Components	
April 26, 2011	Professor Laurent Mertz Pierre and Marie Curie University	Stochastic Variational Inequalities and Applications to Random Vibrations and Mechanical Structures	5 Professor N. Balakrishnan
April 15, 2011	Dr. Ng Chi Tim The Hong Kong Polytechnic University	Composite Likelihood Methods for Stochastic Volatility Models	
April 12, 2011	Dr. Tiejun Tong Hong Kong Baptist University	Improved mean estimation for high-dimensional data and its application to diagonal discriminant analysis	
April 4, 2011	Professor Pierre Raphael Bertrand INRIA Saclay and Clermont-Ferrand Université	A New Method for Change Detection with Applications to Heartbeat Series	
March 29, 2011	Professor Jun S Liu Harvard University	Beyond the Naïve Bayes: Finding Interactions Among Discrete Covariates	
March 28, 2011	Dr. Frederick Kin Hing Phoa Institute of Statistical Science, Academia Sinica, Taiwan	Nonregular Designs: A Better Choice for Experiments	
March 22, 2011	Professor Wenyang Zhang University of Bath	Semiparametric Modelling for Censored Hierarchical Data	
March 16, 2011	Dr. Keiji Nagai Yokohama National University	Sequential Unit Root Test	
March 15, 2011	Professor TSUI Kwok Leung Georgia Institute of Technology	Recent Research on Healthcare and Public Health Surveillance	
March 8, 2011	Professor TSUI Kwok Leung Georgia Institute of Technology	Simultaneous Confidence Bands in Time Series	
February 25, 2011	Professor PENG Xian-Hua The Hong Kong University of Science and Technology	External Risk Measures and Basel III Accord	
December 30, 2010	Professor David O. Siegmund Stanford University	Multiple Comparisons in Searching for Local Signals	
December 17, 2010	Dr. Tingting Zhang University of Virginia	Nonparametric Inference of Doubly Stochastic Poisson Process Data via the Kernel Method	
December 15, 2010	Professor N. Balakrishnan McMaster University	Some Cure Rate Models and Associated Inference and Application to Cutaneous Melanoma Data	
December 13, 2010	Professor Kunlin Wei Peking University	Computational Approach in Sensorimotor Control	
November 16, 2010	Professor Wing K. FUNG University of Hong Kong	Single-Marker and Haplotype Analyses for Detecting Parent-of-Origin Effects	

1 Professor
TSUI Kwok Leung



2 Professor
WU Wei Biao



3 Professor
PENG Xian-Hua



4 Dr
Tingting Zhang



5 Professor
N. Balakrishnan



Annual Dinners

M.Sc. in Risk Management Science Programme

The Annual Dinner of the M.Sc. in Risk Management Science Programme was held on 30 April 2011 at Royal Plaza Hotel, Mong Kok. A total of 78 persons attended the event including teaching staffs, guest lecturers, students and graduates. In the Award Presentation Ceremony, scholarships and certificates were presented to the seven 2010 graduates with outstanding academic performance.



The Best Student Award:

Ms. MOK, Pui Sze

The Academic Excellence Award:

Mr. CHAN, Hok Leung

Mr. WONG, Sai Hong

Ms. SIN, Chui Ying

Mr. LEE, Wai Yeung

Ms. YEUNG, Wing Ki

Mr. LI, Yu Hin

More photos are available at: <http://www.sta.cuhk.edu.hk/mrms/Download/Photo/20110430/index.html>

M.Sc. in Data Science and Business Statistics Programme

The Annual Dinner of the M.Sc. in Data Science and Business Statistics Programme was held on 26 February 2011 at Prince Marco Polo Hotel, Tsim Sha Tsui. A total of 115 persons attended the event including teaching staffs, guest lecturers, students and alumni. Scholarships and Certificate of Excellence were presented to the five 2010 graduates with outstanding academic performance.



Ms. CHAN, Wai Mei

Mr. LAI, Kam Wing

Ms. Ng, Tung Yu

Mr. CHAN, Ngai Yeung

Mr. SIU, Ka Lok

More photos are available at:

<http://www.sta.cuhk.edu.hk/MScDBS/Prog2010/AD2011/INDEX.htm>

Alumni Association of Department of Statistics



活動預告：統計學系三十周年慶誌

為慶祝統計學系30週年，校友會將於來年六月中旬舉行統計系校友晚宴，活動豐富，當中包括展覽學系珍品，好讓校友們回顧統計系30年之變遷。詳情稍後將於官網 alumni.sta.cuhk.edu.hk 公佈，敬請大家留意。



三十周年慶誌活動執委招募

校友會現誠意邀請各位校友加入執行行列，你們的踴躍支持，將令活動變得更精彩！

執委負責範圍包括：

- 協助預備30年回顧展品資料
- 為晚宴提供支援

校友會需要各位校友的鼎力協助！請把姓名、畢業年份和聯絡電話電郵至 alumni@sta.cuhk.edu.hk，截止日期為2012年2月29日。

Internship at Ernst & Young

Zoe Zhou Rong B.Sc. in Risk Management Science



If I were to travel back in time and decide again whether to take this internship, I would still make the same decision. What I gained in the past five months is something beyond campus.

My job duties were very closely related to the RMSC curriculum. I needed to apply the product knowledge learnt in class to perform valuation for different kinds of instruments. There was no limit on product coverage. So long as an instrument was of investment value and held by a client, I had the opportunity to price it and many products were new to me. Unlike school work, numerical result was no longer the only consideration. I needed to decide the most appropriate valuation approach and methodology according to the nature of that audit or advisory engagement. If the valuation difference deviated significantly from the result of third-party independent valuation and made significant impact on financial statements, further analysis was performed. The solid technical knowledge learnt in the past four years served as very good foundation and I now possess a clearer understanding on how things work in the market.

Meanwhile, equally important was the exposure to a real job environment. In campus, flexibility exists for most deadlines and working schedule can be arranged according to personal preference. In reality, deadline is deadline. I also had a stressful period and needed to stay late during the peak season. However, the team here was really great. Even though

my senior was pregnant, she still stayed with me and worked together. When I had problems at work, other teammates were also very willing to discuss and figure out the solutions together. That is precisely why even the workload was considerable, I still enjoyed it. When I worked with my teammates, I had fun with them. This made me understand what was important to me in a job – to work with a team that can work and laugh together. Without personal exposure to a job, it is really difficult to know what kind of job is suitable to me.

Friends were also a determining part of this internship. There were other RMSC and QFIN interns and each of us was of very different style. Through working with them, I discovered attributes that I could improve - the passion for solving problems, the sincerity to others and the work efficiency. The experience of working with these great people really motivated me to work harder and harder so that one day I could be as capable as them. Beyond work, we also chatted every morning before work, enjoyed bubble tea together and hanged around together. They were not just colleagues but good friends.

Although the internship ended, the lessons and memories stay. I treasure the experience of valuing different new instruments. I treasure the happy moments with my teammates and intern friends. The whole practicum is not just a simple course, but a growing and exploration process.

Internship at Ernst & Young

Kim Yeung Kam-Pui B.Sc. in Risk Management Science



Completing the internship program in the Financial Service Risk Management team at Ernst and Young has been a very fruitful experience for me. It is a valuable opportunity to apply the knowledge that I have learnt in the RMSC program to the real-world practices. In addition, it was very satisfying when I could really contribute to my team's efficiency with my knowledge and perspectives.

The internship spanned over five months, which is longer than most summer internships commonly offered. The internship might have cost me a whole semester, but this amount of time was just perfect for me to get exposed to different kinds of jobs, in particular, valuation of a wide range of structural products.

Since the size of the Financial Service Risk Management team was still quite small, I was given much independence in my assigned work. This allowed me a great environment to try, learn and apply my knowledge. By consulting my supervisors and communicating with the auditors and clients, I learnt many real-world practices and soft skills that I might not be able to learn in the classrooms. For

example, the use of databases like Bloomberg and Reuters, and several derivatives risk management software, comprehensive understanding of terms in term sheets, some relevant auditing knowledge, the practical procedures and adjustment of valuation, just to name a few. I strongly believe that this is an illustration of how internship programs can enhance one's academic learning.

I enjoyed this internship program very much. What's more important is that I found I really like the work nature of the team. Because it was the last semester of my undergraduate study when I participated in the internship program, I was given an offer to stay in the team as a full-time employee.

I would like to take this opportunity to express my heartfelt thanks to all those who were involved in organizing such a great internship opportunity. I truly hope that more and more students can benefit from the internship programs in the future.