



AMA Newsletter No.4

October 2008

Departmental Retreat 2008

This year's Departmental Retreat was held at the Shangrila Hotel in Zhongshan on the 5th and 6th of June. Apart from verbal reports by the Head and the Deputy Head, academic staff also held small group discussions on a number of issues of strategic importance. These included "Research Strategy and Expectation", "Teaching and Learning in relation to Outcome Based Education", "Vision and the Core Business of AMA" and "General Management & Administration of the Department". The findings and conclusions of the small group discussions were subsequently presented by respective group leaders in a plenary session.

A highlight of the Retreat was the presentation of Best Teachers' Awards to Mr. Y.K. Kwan and Dr. H. Wong, each of whom received a plaque and a cheque of \$2,000.

Besides the more serious discussion sessions, staff also took part in a sight-seeing tour including visits to the old house and memorial museum of Dr. Sun Yat Sin.



UK Visit by the Faculty of Applied Science and Textiles



To establish better connections with the international academic community, a networking visit to several UK universities took place during the period from 2 April to 12 April, 2008. The delegation was led by Prof. K.Y. Wong, Dean of FAST and included Prof. C.K. Chan and Dr. H. Wong from AMA. The six universities visited were University College London, Southampton, Heriott Watt, Strathclyde, Leeds and the Cass Business School of the City University of London. Mathematics/Statistics departments of the above universities all have undergraduate programmes in Mathematics and Finance or Mathematics and Actuarial Science. As such, the AMA representatives and the other parties concerned had common ground for discussion. This

included the possibility of having exchange students in the future. The general impression is that the combination of mathematics, statistics and finance is a popular option in the UK. This has indeed strengthened our confidence in the new Investment Science programme.

Visit by American Universities

In May, we shared very precious experiences with two American universities, University of Wisconsin at Whitewater and Creighton University in Omaha. In the afternoon of 21st May, a seminar was organized in which the visitors and the host had an opportunity to learn from each other about their programmes and their universities in general. A subsequent tea reception served as an opportunity for exchanging ideas and perspectives among teachers and students in a free and casual atmosphere. Following the tea reception, the visitors went on a tour of the PolyU campus, escorted by our students. The day ended delightfully with an excellent dinner at TST East.



Summer Camp 2008

More than 90 students from some 40 secondary schools, including 3 from overseas, attended a summer camp entitled “The Science of Investment” organized by AMA from 16 July to 18 July, 2008. The summer camp was organized in conjunction with other departments within the Faculty of Applied Science and Textiles.

Two introductory lectures in investment science and in finance modelling were given in the afternoon of 16 July, followed by a Q & A session. A brief introduction to our 3-year UGC funded Investment Science Programme was given by the Programme Leader Dr. H. Wong.

Students were introduced to the celebrated Bloomberg financial information system in the morning of 17 July, 2008 and toured the PolyU Library and the House of Innovation. The Bloomberg session was further enhanced by a practical session in the afternoon, where students built up their own investment portfolio using the Bloomberg System as their data bank. On the final day of the Summer Camp, two professionals from industry were invited to share their work and study experience with students. The Summer Camp ended with a joint buffet lunch attended by participants from other disciplines in the Faculty.

More than 70 participants stayed in the students’ halls of residence for two nights and had their first taste of university life. They took part in a team building gathering in the evening of 16 July, 2008 with sports and recreational activities during the following evening.

The majority of the students considered the event beneficial to their understanding of the Science of Investment. We believe that activities like this would enable secondary school students to know more about PolyU and its programmes.



Info Day 2008



Every year, the University organizes a number of programme promotion exercises to attract quality secondary school students to select PolyU as their preferred university. The biggest of such exercises is the annual Education Information Day. This year’s Info Day took place on 27 September, 2008 attracting some 30,000 visitors.

Posters about AMA’s programmes, teaching, learning and research activities were displayed inside the booth located at Core P. Detailed information about study opportunities in the Department were disseminated to all visitors to our booth. Visitors also participated in a game of pitching chips into squares, and successful pitchers were given an opportunity to win a Rubik’s cube with an embossed AMA logo. Each visitor was also given a “mathematics calendar” specially designed as a souvenir of the event.



Two Information Seminars introducing the Investment Science Programme were held. They were so well received that we had to organize a third one in order not to disappoint interested

students. A forum was also organized in the morning for career teachers.

All in all, it was a successful and rewarding exercise to all concerned. We wish to thank our colleagues and the student helpers for their hard work.

End-of-semester Lunch

The second semester of the 2007/08 academic year ended on 31 May, 2008. To show our appreciation to colleagues for their hard work during the semester, a special luncheon was held on Friday 30 May, 2008 in a Tsim Sha Tsui East Restaurant for all staff. The Head of Department expressed his gratitude to staff for achieving a number of goals over the past year, including the eventual approval in principle by the University the Department's proposal to launch its 3-year UGC funded undergraduate programme commencing September 2009. He urged colleagues to work even harder in the years ahead for the well-being of the Department and its staff and students.

During the lunch, the Head of Department also presented a souvenir to Dr. C.W. Chan for his official retirement from the University. Dr. Chan continues to stay with the Department in his new role of "Visiting Fellow".



Visit to the Hong Kong Exchanges and Clearing Limited

Led by their Programme Leader Dr. Wong Heung, 26 students from our BSc Programme in Investment Science visited The Hong Kong Exchanges and Clearing Limited, commonly known as the "Goldfish Tank", on Wednesday 8 October, 2008. They were shown around the HKEx by a tour guide, who explained to students past developments and recalled many of the historical aspects of the HKEx. Students were very much impressed by how Hong Kong has achieved as an international financial centre despite past difficulties.

Apart from enjoying the visit to HKEx, students also felt a strong sense of anxiety that day as the Hang Seng Index went down by more than 700 points during the tour. They had a "first-hand" experience of one of the most dramatic moments in the history of the stock market. It is hoped that they would use this memory for the better, in terms of managing risk, whatever their subsequent careers!



Shanghai Visit

The Department organized a learning experience tour to Shanghai earlier this year for its Investment Science students to interact with their counterparts in the Mainland. It also provided our students with an opportunity to gain a better understanding of recent developments in Mainland China as well as to strengthen their sense of social and national responsibilities.

The tour began on 7 June, and was led by S.H. Hou, W.C. Ip, L.K. Li and Cedric Yiu. To increase students' awareness of the economic and cultural developments of Shanghai, the group visited places including Shanghai Baosteel Group (the largest iron and steel conglomerate in China), Shanghai Oriental Pearl Tower, Shanghai Museum, Shanghai Art Museum, Zhou Zhuang (周莊), Yu Yuan (豫園), the City Temple of Shanghai (城隍廟), Nanjing Road Shopping Street (南京路步行街) and the Bund (外灘). They also visited the Exhibition of Historical Relics showing the founding of the Communist Party of China.

On the academic side, students visited Fudan University and Shanghai University of Finance & Economics. After that, our students visited East China Normal University for a seminar and took part in a friendly basketball match with local students. Students also got an opportunity to attend a lecture by Professor Andrew Lo of MIT in the International Symposium on Financial Engineering and Risk Management.

On the final day of the tour, the group took a ride on the Shanghai Maglev train, a marvel of advanced technology, travelling at speeds up to 431 km/hr.



Alumni Gathering

With the assistance of the Alumni Association of Applied Mathematics, the Department organized the first ever sports day for its alumni in the afternoon of 26 July, 2008. Sport activities were organized, including badminton, tennis, table-tennis, swimming and football. Many alumni came back to their alma mater with their spouses and children to enjoy a fun-filled Saturday afternoon. In particular, four football teams were invited to a competition, including one from the Census and Statistics Department, one from the Convoy Group, one from the alumni of the Accounting and Finance Department and one composed of AMA staff, alumni and students. Although the Convoy Group did not send in their First Division League team Convoy Sun Hei, its team still managed to defeat its three opponents hands down.



Hot Seat to the Grand Event – XXIX Olympic Games

While most of us were watching the intense competitions of the recent Olympics Games on television, Prof. CK Chan had an official hot seat close to where the actions were in Beijing. He was actually Deputy Referee of Table Tennis in the Games. As Deputy Referee, he was involved with scheduling of the daily competition, assigning umpires and other match officials for the actual competition, deciding on acceptability of players' clothing and equipments, smooth and timely presentation by the media and generally ensuring the entire competition was without a hitch. When asked about the most memorable moment of the event, CK's answer was "when the Table Tennis competition was over and the last medal was presented."



Past and Forthcoming Events of the AMSS-PolyU Joint Research Institute (JRI)

The AMSS-PolyU Joint Research Workshop 2008 was held on 27 June, 2008 at PolyU to allow researchers to exchange ideas of frontier research on applied mathematics and to promote joint research between AMSS and PolyU. President of PolyU gave the opening address. There were 12 speakers including 4 from overseas (Tom Coleman(Canada), Adrian Lewis(USA), Ph.Toint (Belgium), Yinyu Ye(USA)), 4 from AMSS (Zhongzhi Bai, Yuhong Dai, Zhiming Ma, Yaxiang Yuan) and 4 from PolyU(Xiaojun Chen, Liqun Qi, Phillip Yam, Xingqiu Zhao). Around 70 people attended the workshop.



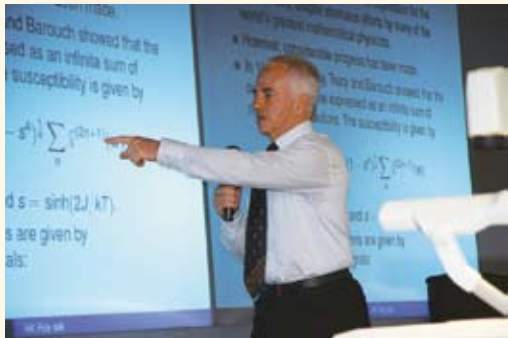
On 24 September, AMSS-PolyU JRI Workshop on Computational Mathematics was held at PolyU to welcome Prof. Ian Sloan to the mathematics community in China and to enhance collaboration among computational mathematicians in Hong Kong. There were 14 speakers including Zhong-ci Shi(AMSS), Raymond Chan (CU), Roderick Wong (CityU), Philippe Ciarlet (CityU), Houde Han (Tsinghua U), Michael Ng (BU), Weiwei Sun (CityU), Tao Tang (BU), Xiaoqun Wang (Tsinghua U), Jun Zou (CU), Cheong-ki Chan (PolyU), Xiaojun Chen (PolyU), Man Kam Kwong (PolyU) and Yanping Lin (PolyU). The workshop was attended by some 70 people.



Prof. Zhongben Xu presented a AMSS-PolyU JRI Colloquium Lecture on "Vision Inspired Data Modeling" on 3 October. Prof. Xu is the Winner of CSIAM Su Buchin Applied Mathematics Prize 2008.

JRI Distinguished Lectures

A highly successful Distinguished Lecture was delivered by Professor Jong-Shi Pang on 3rd April, 2008. Professor Pang is an ISI Highly Cited Mathematician and the Head of Department of Industrial and Enterprise System Engineering, University of Illinois at Urbana-Champaign. He was also the winner of the 2003 George B. Dantzig Prize awarded for his work on finite-dimensional variational inequalities. In his talk “Differential Variational Inequalities (DVI): A New Mathematical Paradigm”, Professor Pang gave an overview of selected topics associated with DVI and highlighted some of its applications.



Prof. Tony Guttman delivered another Distinguished Lecture on 9th October, 2008. Prof. Guttman works in algebraic combinatorics, algorithm design, statistical mechanics and co-operative phenomena, and has more than 200 articles in the literature. He is currently Director of the ARC Centre of Excellence for Mathematics and Statistics of Complex Systems. He is also a winner of the Szekeres Medal of the Australian Mathematical Society. He displayed his expertise in his talk “The Ising Model – A Paradigm of Co-operative Behaviour”. This model has an enormous range of applications. Prof. Guttman inspired the audience with an account of the progress in solving the problem in two dimensions.

Forum on High Impact Research in Applied Mathematics

The Department currently has four eminent Chair Professors. Together they possess extensive experience over a wide range of research areas in Applied Mathematics. To share their experience with members of the local academic community, a Forum on High Impact Research in Applied Mathematics was organized on Monday 13th October, 2008. During the forum, each speaker highlighted his own experience in carrying out high impact research and in attracting research funding over the years.



Announcement of future workshops/conferences to be held at PolyU:

Workshop of Computational Polynomial Optimization and Multilinear Algebra on 22 – 23 December, 2008. Over 10 speakers will be invited from overseas.

International Conference on Engineering and Computational Mathematics (ECM2009) on 27 -29 May, 2009. There will be 96 plenary speakers, semi-plenary speakers and invited speakers.

The Second International Workshop on Successful Strategies in Supply Chain Management (IWSSSCM2)

It has been three long years since our First International Workshop on Successful Strategies in Supply Chain Management was held in January 2006. We are very excited to announce that the Workshop will be held the second time, in PolyU again, on 8th – 9th January, 2009. The Workshop is sponsored by Lee Hysan Foundation, the K.C. Wong Education Foundation and hosted by our Department. It aims to provide academics and practitioners with a forum to exchange ideas on research, teaching, and practice of supply chain management, so as to promote better communication and joint efforts among practitioners and academics all over the world. Visit our website at <http://www.polyu.edu.hk/ama/iwssscm2/> for further details.



Research Achievements

Results for Applications submitted by AMA for the 2008/2009 General Research Fund of RGC.

In the 2008/2009 round of GRF application, the Department has successfully obtained 6 grants for a total research funding of over \$3.3 million. The number has doubled what the Department got in the previous round, and is in fact a historical high for AMA. In particular, 3 out of 6 successful grants are awarded to new colleagues joining the Department after 2006.

Our success rate is No. 2 in FAST, and is also higher than the average success rate in PolyU.

Staff Movement

1. **Man Kam KWONG** was appointed Chair Professor of Mathematical Computation in May 2008. Professor Kwong got his BSc and BSc (Sp) Degrees at HKU in the late 60's. He obtained his PhD in 1973 at the University of Chicago, before joining the Mathematics Department of the then Baptist College from 1973-1975 and subsequently the Department of Mathematics and Science of the then Hong Kong Polytechnic from 1975-1977. He was appointed Visiting Assistant Professor in Northern Illinois University in 1977, and was promoted to full Professor in 1983. After working at Argonne National Laboratory as a Research Scientist from 1987 – 1996, he joined Lucent Technologies of the Bell Lab as a Software Engineer until April 2008. Professor Kwong is a highly cited mathematician, and his research interests cover applications of symbolic and numerical computations, in particular, to differential equations and inequalities.
2. **Yan Ping LIN** joined the Department as a Professor in September 2008. Yan Ping got his BSc Degree from NE Institute of Technology, China and MSc and PhD from Washington State University in 1987. Before joining PolyU, he was a Professor at the Department of Mathematical Sciences, University of Alberta, Canada. Professor Lin's research areas include PDE, Scientific Computing and Mathematics Finance.



3. *Zhao Xingqiu was appointed Assistant Professor in April 2008. Dr. Zhao obtained her BS Degree in Hubei University and her MSc and PhD Degrees at McMaster University in Canada. Her research areas include Survival Analysis, Time series, Stochastic Process, Financial Mathematics and Econometric.*
4. *Marjorie Chiu was promoted Instructor in July 2008. Dr. Chiu was a graduate of our Higher Diploma in Mathematics, Statistics and Computing. She received her MSc. in Statistics at Sheffield University and her PhD at PolyU under W.C. Ip in 2002. She is a Chartered Statistician of the Royal Statistical Society.*
5. *Samuel Hau resigned from the Department in August 2008. We wish him all the best in his future endeavours.*
6. *Benjamin Ming Keung OR was appointed Instructor in August 2008. He obtained his BSc and MPhil in Mathematics from the Chinese University of Hong Kong and MSc. in Applied Statistics from the University of Oxford. Ben's research interests include Bayesian MCMC, Actuarial Mathematics and Differential Geometry.*
7. *HO Chor Yin (BSc, MSc(Eng), MSc, MPhil), MAK Kai Long (BSc, MPhil) and Steven YUEN (BSc, MSc, MPhil, PGDE) were appointed Tutors in September 2008. Their respective research interests are Differential Geometry, Modelling and PDE.*
8. *Vicky Wu was appointed Marketing Officer of the Department in April 2008. Before joining PolyU, she worked in the marketing division of SONY (HK).*
9. *C.W. Chan officially retired from the Department in November 2007, and was appointed Temporary Senior Lecturer from December 2007 to June 2008. He is now with the Department as a Visiting Fellow.*

Group Photo

Following tradition, a group photo for all academic, research and supporting staff was taken at the beginning of the 2008-09 academic year.



Editorial Board

C.K. Chan, Chi Kin Chan, Shui Hung Hou, Colin Rogers, Katie Cheung (Secretary), C.W. Chan (Convenor).

Department of Applied Mathematics, The Hong Kong Polytechnic University

Hung Hom, Kowloon, Hong Kong

Tel: (852) 2766 6946 Fax: (852) 2362 9045

Email: maopview@polyu.edu.hk (for enquiry) or macwchan@polyu.edu.hk (for article submission)

Website: <http://www.polyu.edu.hk/ama/>

Copyright©2008 Department of Applied Mathematics
The Hong Kong Polytechnic University