



AMA Newsletter

31 Oct 2007

Message from the Head

Since the publication of the previous issue of the Newsletter in June, I have returned to the Department as Head, and several new academic staff have joined our Department in August. A few more will join in the next month or so. Some of them came from overseas, including Prof. Colin Rogers from Australia, Prof. Xiaojun Chen from Japan, Dr Xun Li from Singapore and Mr. Phillip Yam from UK. We also have Dr. Francis Austin, Dr. Ernest So and Mr. Wong Wai Him joining the Department as Tutors. In line with our new strategy in research, we have renamed the Engineering Computation Research Group as the Engineering and Computational Mathematics Research Group, the Applied Statistics Research Group as the Financial Mathematics and Applied Statistics Research Group, along with the Operations Research and Applied Optimization Research Group. We have also started two seminar series, one on Engineering Mathematics and the other on Financial Mathematics. In teaching, we started our full-time UGC-funded undergraduate programme on Investment Science, with 29 students enrolling in the Programme. This new Programme provides more opportunities for further studies for graduates of Higher Diploma and Associate Degree programmes in Hong Kong.



Our colleagues are working hard together to build our Department. We hope that our Department can grow from strength to strength, serve the community better and make more achievements in the years to come.

Liqun Qi

Departmental Photo



A group photo for all academic, research and supporting staff was taken before the beginning of the semester at the Logo Square.

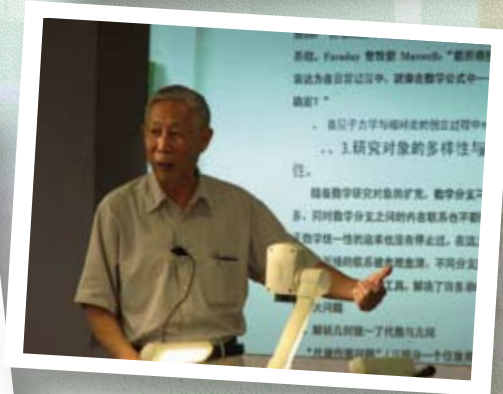
**Distinguished Chinese Visiting Scholar 2007**

Professor Chang Kung Ching, Professor of Mathematics at the School of Mathematical Sciences of Peking University, visited the Department from 22 October to 26 October 2007 under the University's Distinguished Chinese Visiting Scholar Scheme.

Professor Chang delivered an open lecture entitled "Mathematics, a profession in the contemporary world" in the Senate Room on Wednesday 24 October. During the lecture, Professor Chang discussed in a lively manner to students and staff the basic feature of mathematics, how mathematics should best be learned and the demands of the contemporary world on mathematicians. It was warmly received by the audience. Professor Chang also gave an expository talk on the past and present of the Calculus of Variations, during which he reviewed the early works of Bernoulli, Euler, Lagrange and Hilbert, described the development and impact of the Direct Method and discussed the latest development of the Calculus of Variations with applications over image processing, material science and optimal design.

Professor Chang was honoured by the University in a ceremony held on 25 October, where a souvenir was presented to him by the President.

Professor Chang's visit to the University and the Department would enhance the close link between the PolyU and Peking University, and boost the image of the recently established AMSS-PolyU Joint Research Institute in Engineering and Management Mathematics.



Research development

The Department has received a huge boost to its research profile by the joining of two internationally renowned mathematicians: Professor Ian Sloan, as the Chair Professor of Applied and Computational Mathematics, under the Distinguished Scholar Scheme of the University, and Professor Colin Rogers as the Chair Professor of Engineering Mathematics.

Based on the research strengths of the staff members and in view of the new academic programme in investment science, the Department has re-organized its research groups. While retaining the existing group in applied optimization and operations research, the other two groups have been re-organized, with one specializing in engineering and computational mathematics and the other focusing on financial mathematics and applied statistics.

In the latest round of results from CERG applications, the Department has had three successful applications plus six projects eligible for internal funding support from the University. The Department has submitted totally 15 applications this year.

Professor Yang Xiaoqi has received the First Class Prize in Natural Science from the Chongqing Municipal Government in China for the research project of vector and set-valued optimization theory.

Forthcoming Events for JRI

The AMSS-PolyU Joint Research Institute has been organizing the Distinguished Lecture Series conducted by renowned scholars since its establishment in 2006. The objective of the Lectures is to offer a platform for the exchange of ideas and provide first-hand accounts of the speakers' scholarly accomplishments in Engineering and Management Mathematics. We are pleased to announce the following Distinguished Lectures to be held in this semester:

<i>Time, Date & Venue</i>	<i>Speaker</i>	<i>Title</i>
3:00 p.m. – 4:30 p.m., 14th Nov., 2007, N113	Tommaso Ruggeri, University of Bologna, Italy	An introduction to the modern theory of Extended Thermodynamic with applications to rarefied gases and multi-temperature mixture of fluids
3:00 p.m. – 4:30 p.m. 4th Dec., 2007 AG710	Prof. Michael J.D. Powell, Cambridge University, U.K.	On algorithms for nonlinear optimization since 1959
3:00 p.m. – 4:30 p.m. 21st Dec., 2007 AG710	Prof. Peter Hall, University of Melbourne, Australia	Robustness of multiple hypothesis testing procedures against dependence
3:00 p.m. – 4:30 p.m. 27th Dec., 2007 AG710	Prof. Yinyu Ye, Stanford University, U.S.A.	Finding Equitable Convex Partitions and Its Applications



Activities Highlights

Departmental Retreat

The Department held its annual retreat on 8th and 9th June 2007 in Zhuhai. It was attended by all academic and administrative staff. Among the topics discussed during the closed door sessions were (1) Staffing situation of AMA; (2) Departmental Business Plan 2007-2008; (3) Academic Staff Loading; (4) Research, Teaching and Administration of academic staff; (5) Department Management and Communication and (6) New curriculum of AMA in response to the 3+3+4 curriculum of PolyU; (7) Research and the establishment of a Graduate School in PolyU. Similar to previous years, the occasion was used to honour the Department's Best Teacher of the Year. This year's Best Teacher Award went to Dr. Chan Chun-wah. Apart from the more serious meeting, the Department had a half-day excursion to Shi Jing Shan Park.



New Look of AMA

After a long and almost "unbearable" period of three months when the entire Department was temporarily re-located in the BC wing, everyone moved back to the HJ and FJ Wings at the end of August. Several colleagues actually moved into new offices while most went back to their original offices.

The newly renovated Department is more open with a rather pleasant environment. A logo designed by Mr. Larry Ting Hei-lam, a third year School of Design student, stands at the lobby of the Department. The logo was the result of a Logo Design Competition organized by the Department with the help of colleagues from School of Design. The competition attracted no less than a dozen innovative entries.



Summer Camp 2007

A summer camp for secondary school students entitled “The Science of Investment” was held from 18 July to 20 July 2007 in conjunction with other departments in the Faculty of Applied Science and Textiles under the general heading of “A taste of Science and Textiles”.

The response to the summer camp from secondary school students was overwhelming: the initial quota of 50 was filled up in just a few days. All in all, there were over 150 applicants and we were only able to accommodate 80 of them. Apart from introductory lectures in investment science, forecasting and financial mathematics, participants were introduced the famous financial information system provided by Bloomberg.

In a lighter note, students also participated in various games and competitions, including an investment game where each participant was given a notional \$100,000 to purchase equities from the market. 50 of the participants also got an opportunity to stay in the students’ halls of residence for two nights and had their first taste of university life. They also participated in a team building gathering in the evening of 18 July and some sports and recreational activities in the other evening.

All participants who successfully completed the camp activities were given certificates of attendance. We believe that activities like this one would enable secondary school students to know more about PolyU and its programmes.



New Proposed Programme

Following the start of our new two-year articulation undergraduate programme in “Investment Science” in September 2007, the Department has submitted a new Initial Programme Proposal to the Academic Planning Committee to be included in the PolyU’s Academic Development Proposal for 2009-2012. The IPP of our department has obtained un-reserved support from the Advisory Committee of the Department. With support from the UGC, the programme aims to start in 2009 accepting full-time secondary school graduates.



Activities Highlights

Logo Design Competition Award Presentation Ceremony and Farewell to long serving staff

A ceremony was held on Thursday 13 September with 3 purposes: to present prizes to the winners of our Departmental Logo Design Competition, to bid farewell to two of our retiring colleagues and to take friends of the Department to a tour of our newly renovated office.

The ceremony began with a brief introduction of the design competition for AMA Departmental Logo by Dr. C.K. Chan, the Deputy Head of Department. Prizes (a trophy, a certificate and a cheque) were then presented to Mr. Larry Ting, the winner, and runners-up of the competition by the Deputy President. Souvenirs were also presented to members of the Panel of Judges and the Adviser of competition, Professor Lorraine Justice of the School of Design.

The Head of Department Professor Qi Lique gave a short speech to introduce the two long serving staff, Mr. W.K. Huang and Mrs. Louise Ng, and thanked them for their excellent service to the Department over the past 30 years. He then presented souvenirs to WK and Louise as a token of our gratitude to their contribution to the development of the Department.

Apart from more than 40 colleagues of the Department, the ceremony was attended by a number of guests, including the President, the Deputy President, VP(PD), Dean (FAST), Dean (FENG), senior staff of other PolyU Departments and the Chairman of our Departmental Advisory Committee. The gathering ended with a cocktail reception.



Info Weekend 2007

Every year, PolyU organizes a number of programme promotional exercises to attract quality secondary school students to select PolyU as their preferred university. The biggest of such exercises is the annual information day. As this year happens to be the 70th anniversary of the University, the traditional one-day info day was extended to a two-day info weekend. It was held on Saturday 6 Oct and Sunday 7 Oct. The 2-day event attracted some 30,000 visitors, which is the largest number compared to previous years.

The AMA booth was located at Core P, together with other departments in the Faculty of Applied Science and Textiles. Posters about our programmes, teaching, learning and research activities were displayed inside the booth. Detailed information about study opportunities in the Department of Applied Mathematics were also disseminated in the

leaflets distributed to our visitors. Every visitor to the booth was given a “mathematics calendar” specially designed for the event. It was a successful and rewarding exercise to all concerned. We wish to thank all our staff and student helpers for their assistance.



Soccer Competition

The Department organized a soccer competition at the Keith Legg Soccer Pitch in the University campus on 2nd June, 2007. It was an activity under the “Mentorship Programme” of the Department aimed at furthering the liaison among our mentors, staff, students and alumni. Three teams participated in the competition: (1) ‘Graduating AMA students’, (2) ‘AMA staff and alumni’ and (3) the ‘Census & Statistics Dept. Soccer Team’.

The Competition adopted the single round robin system with a total of 3 matches, each lasting 30 minutes. Dr. H. Wong, the Programme Leader of our HD in Mathematics, Statistics and Computing, kicked off the competition at 3:30 pm.. The pitch was well surrounded with audience and the Competition kept going excitingly with cheers from supporters.

The ‘Census & Statistics Dept. Soccer Team’ finally won the competition with scores of 3:1 and 2:0 against the other two teams. All teams were presented souvenirs at the end of the event by Dr. C.K. Chan, Deputy Head of the Department.

Staff Movement

1. Colin Rogers, former Chair and Head of the Department of Applied Mathematics, University of New South Wales, was appointed Chair Professor of Engineering Mathematics. Colin is a leading researcher in Nonlinear Continuum Mechanics, Baecklund Transformations and the Geometry of Solitons. He assumed duty on 27 August 2007.
2. Li Xun and Phillip Yam were appointed Assistant Professor and Lecturer respectively in August 2007. Before joining the Department, Xun was a Fellow at the National University of Singapore, while Phillip was a PhD student at Oxford University. Their research areas include Stochastic Theory, Risk Management and Financial Mathematics.
3. Francis Austin, Ernest So and Solomon Wong joined the Department as Tutors in August 2007. Francis works in applications of differential geometry to differential equations, Ernest's main research interest is in statistical modelling and Solomon specializes in Engineering Mathematics.
4. W. K. Huang and Louise Ng retired from the Department after some 30 years of dedicated service. A party in their honour was held on 13 September. Souvenirs were presented to them by the Head of Department.
5. Fion Chan (Executive Assistant), Wilson Kwan (Tutor), Jodie Lee (Tutor) and Karen Tam (Temporary Lecturer) left the Department during the summer.



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