



# HKU, a Place where We Meet and Exchange

*The rise of globalization fosters the exchange of international community. Students no longer focus on their own living place, but set their vision on the world. In the past few years, the Faculty has successfully attracted more international, incoming exchange and Mainland students to the campus. Despite their diverse backgrounds, they are here to meet at HKU, exchanging ideas with local students, crossing the boundaries of nation, race and cultural differences. What has led them to the University and what have they gained*

*here? Let's hear from our students their stories in Hong Kong, a melting pot where east meets west.*



Ann Lertvicha (left) and Cherry Cai (right)

## From The Editor

Dear readers,

More and more international students are coming to study in HKU, either as our regular students or as exchange students. In this issue of *Science@HKU*, you will hear their voices and their experience in HKU Faculty of Science. At the same time, I am sad to tell you that we have lost two colleagues in the past few months. Professor Chris Beling, Professor in the Physics Department, passed away in a swimming accident and Dr S K Chung, former Teaching Consultant in the Mathematics Department passed away after a courageous fight with illness. You will see a few articles here in memory of the two colleagues.

*Science@HKU* is also a place for our alumni to share their news. Should you have anything to inform your fellow old boys, please write to us at [scinews@hku.hk](mailto:scinews@hku.hk)

Yours sincerely,  
Dr H F Chau  
Chief Editor

## From Guiyang to Goldman Sachs: an Unforgettable Journey

by Ann Lertvicha

Since my first arrival at HKU in the end of August, I have met many inspirational people. My conversation with Cherry Cai Shiqian, a recent Mainland graduate of Bachelor of Science in Actuarial Science, was by far the most thought provoking one. Her determination to see the world took her from Guiyang to Shanghai, Hong Kong, Vancouver, and New York City. Looking back on her experience over the past few years, Cherry feels like she has become a more confident person. "If I have not gained such unique experiences, I would not have come so far." Cherry is now employed in the Operational Risk Management and Analysis Unit in Goldman Sachs Hong Kong.

Cherry's desire for an international education was due to her limited exposure to people from diverse backgrounds in Guiyang. "The energy and dynamics in Hong Kong are really unique and fascinating to me," Cherry recalled why she chose HKU. "I wanted to have a high quality education in an international city, and HKU was a perfect fit."

After a foundation year at Shanghai Jiaotong University, Cherry entered HKU, excited about the journey ahead. She managed to adapt to the new environment due to the similar culture. However, she did encounter a challenge – language. Her schooling had been in Mandarin, while HKU uses English as the medium of instruction. The fact that local students speak Cantonese, a completely different dialect, also posed a greater challenge. "I've no idea what the professors were talking about during the first week, and I was too shy to speak in English. I had to carry a dictionary with me for weeks." Nevertheless, Cherry grabbed every single chance to practice Cantonese, and engaged actively in different hall orientation activities. After several months of "intensive training", Cherry became more comfortable with the new languages.

Encouraged by her experiences at HKU, Cherry decided to go for exchange at Simon Fraser University, a prestigious university in Vancouver. "Studying abroad was indeed an effective way to improve my English, and my teachers told me that Simon Fraser was strong in statistics." Yet, Cherry did face some cultural shocks this time. "Everything was different, the life style, jokes, food, etc." Cherry could not find the lively beat and dynamics of Hong Kong here in Vancouver, but all in all, she enjoyed the exchange tremendously. "Vancouver appears to be one of the most beautiful cities I have ever been to, and the interactive learning environment at Simon Fraser did impress me a lot. Even now I still miss Vancouver very much. Yes, I would highly recommend the exchange programme!"

Ann is a Year 1 Science student from Thailand.



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Cherry (second from the left) and colleagues toured around during the leisure time of training in the States

Cherry began to appreciate the value of HKU education when she attended her job interviews. "It helped me build up a solid foundation of my knowledge and acquire certain qualities one should possess when pursuing his or her career path. Those are leadership, teamwork and confidence," said Cherry. "I would say the qualities that I obtained at HKU helped pave way to success. People don't just ask questions. They ask 'why', which drives me to think deeply and keep on learning, and if you ask me whether knowledge was enough to secure a job or even an interview opportunity, my answer is 'no.'" Cherry also said that science education has given her the will to strive for excellence and the ability to think logically, two qualities highly valued by the job interviewers.

Talking about her study at HKU, Cherry appreciated the diversity of subjects a lot. "I was in the programme of Actuarial Science. One moment I might be working on my statistics assignment, and a spanish essay the next. Through the flexible and diversified curriculum, I was exposed to different disciplines and learn more." Cherry said.

As a student from Mainland, Cherry would like to share a message with fellow Mainland students. "Stay open minded, and throw away the stereotypes. Don't limit yourself to a small circle of friends. Only those who are willing to step out can learn new things."

"What does it mean to be a student at HKU?" This is a question that I repeatedly ask myself as a freshman. I raised the same question to Cherry, and her reply assures me that HKU is a place where we students could achieve something truly inspirational. "HKU is a place where I grew up, became more independent and confident. It witnesses the change of my personality, from a scared freshman to a confident individual. I have no fear to handle new things or environment now."



Congratulations to your success, Cherry! The HKU community wishes you all the best.

Cherry will be the Student Marshal and deliver a speech on behalf of the graduates at the Faculty Graduation and Prize Presentation Ceremony this year.



## What Do They Say International Students

### Disha PARIKH

Indian student from Tokyo, Japan

Year 1, BSc (intended major: Biotechnology)

"All I can say for my first two weeks at HKU is so little time and so much to do! Ranging from academic, cultural and social activities, HKU really has a lot to offer. It has been a smooth transition into hall life, and with its diverse environment, hall becomes a great place to make friends. Coming from Tokyo, I did have my share of anxieties about college life, but now I find that people here are very helpful.

I intend to pursue my undergraduate studies in Biotechnology. To me, HKU is a great place with its well-balanced and interdisciplinary curriculum, which will definitely help me to build up a solid foundation of my knowledge and facilitate my future studies. So far it's been a great start to my university life, and I look forward to spending the next 3 years here!"



Disha (in the middle) and friends

### Balazs ELEK

International student from Hungary

BSc (Mathematics) graduate 2010

Balazs is pursuing an MPhil degree in Mathematics at HKU. He is also the Vice-chairman of the Fencing Club, HKUSU



Balazs (second from the left) with members of Fencing Club

"As a foreign student, the three years of my Bachelor's studies have been full of unique challenges and opportunities. I was able to learn mathematics from excellent and committed teachers in a perfect academic environment. The taste of research life during my stimulating final year project strengthened my confidence in pursuing academic studies in the future, dispelling my worries about the path ahead.



I had an invaluable chance to learn about Chinese language and culture, meeting wonderful people from all walks of life. The University's Fencing Club also left me many fond memories, be it the experiences of participating in competitions or being instructors of beginners. My excursions to the countryside of Hong Kong also impressed me a lot.

I am very glad that three years ago I had the courage to embark on an adventure like this, and I am grateful to the Faculty of Science for a truly life-changing experience."



### **TSEN Yuan-lin**

*International student from Taiwan  
Year 1, BSc (intended major: Physics)*

"The first few weeks at HKU were full of surprises and challenges. HKU provides me with an environment totally different from those I have experienced before. For me, the chance to meet people from all over the world is the most inspiring part of the life here. That is also a crucial reason I chose HKU rather than staying in Taiwan. I think HKU is a great place to acquire not only a solid foundation of knowledge but can also provide me a holistic education to prepare me an ever-changing environment.

This is just the start, but I believe that I will have a great 3 years at HKU."

### **LI Xin-yu**

*International student from Mainland  
Year 2, BSc (major in Mathematics/Physics)*

*Participant of Overseas Research Fellowship Scheme at Mullard Space Science Laboratory, University College London; research title: "Large-scale Cosmic Magnetic Field"*



"As a Mainland student, I could choose to go to top universities in China for my undergraduate study, but HKU is a choice never to regret. Inspite of its rigorous academic training, the Faculty of Science stresses the importance of the development of students' ability. It offers various opportunities for students to enroll in real science research during their undergraduate studies, and inspires students to explore themselves, and that's where creativity comes from.

HKU's profound international background also exposes students to different cultures, stimulating their ways of thinking. You can find students from all over the world here, and it is really a good chance to broaden horizon and exchange ideas with people of different backgrounds."

## **Incoming Exchange Students**



### **Sam PAYLER**

*Incoming exchange student from The University of Birmingham, United Kingdom (2009-10)*

*As a Geology student, Sam took most of his courses in the field of Earth Sciences during his stay in HKU*

"I am from the UK and studied at HKU for the third year of my four year undergraduate degree. The transition between living and studying in the UK to Hong Kong, whilst initially daunting, was surprisingly smooth. Any academic or cultural differences were easily overcome by the highly approachable and helpful lecturers and great class and hall peers. These, coupled with Hong Kong's innate and rare ability to simultaneously excite and relax with its vibrancy and surprising sense of safety, surely make it one of the best places on Earth to spend a study abroad programme."

### **Madeleine MORRIS**

*Incoming exchange student from University of Edinburgh, Scotland (2010-11)*

*As a student studying Master programme in Chemistry, Madeleine chooses to focus on Chemistry during her stay in Hong Kong*

"HKU and my home university have a partnership which allows me to undertake a research project in the Chemistry Department. This gives me access to excellent facilities and researchers, and I am working with some very driven and innovative people, both staff members and students alike. People in HKU, who are friendly and welcoming, particularly those in my hall, are a huge help with the acclimatisation. The city is incredible and has so much to offer – culture, scenery, travel opportunities, excitement and even tranquillity – I just hope I can experience enough of it in the short time I have here!"



*Morris (third from the right) and hall mates at Charity Walk for the Hong Kong Red Cross*

### **Stephanie SLAWSON**

*Incoming exchange student from Winona State University, USA (2010-11)*

*Stephanie chooses to focus on Biology during her stay in HKU*



"My name is Stephanie Slawson, and I am in my fourth year of school, majoring in Biology, Pre-medicine. I chose HKU because it is one of the top schools in the world. So far it has been a great choice. I chose Hong Kong because I have always wanted to learn about the Asian culture. Hong Kong has very easy access to most other Asian countries and I plan to visit several!"



## In Memory of Professor Chris Beling

(1956 - 2010)

### A Great Loss to the Department of Physics

by Professor F C Zhang, Head of Physics

Professor Christopher David (Chris) Beling, a member of the Department of Physics from 1987, recently passed away at the age of 54 at a tragic swimming accident where he tried to save his brother.

Chris came to Hong Kong from The University College London where he was a lecturer. It was a time when the department had not yet assumed the role it would play in research, and Chris's active and pioneer studies in positron physics contributed significantly to that transition. His more lasting contribution was the spirit of research in experimental physics that he cultivated in the department, through his mentoring of research students and encouragement to technical staff.

Undergraduate students were by no means ignored. Chris's kind and unselfish readiness to interact with them made him a popular teacher. Despite his profound interest and deep understanding of his subject, Chris was one of those of unusual spiritual conviction. It was of no surprise to see him on the opposite side of an argument with colleagues, but his willingness to listen to different voices always ensured respect for his position. In the midst of his hectic schedule, Chris could always spare time to be a model husband and father.

All these incidents truly reflect Chris's outstanding personal qualities – devoted, conscientious, kind, hard-working, unassuming, patient and modest. He lacked the slightest hint of arrogance which sometimes characterizes professors, and it was this humility that especially endeared him to all his students and colleagues.

A great loss to the Department of Physics, and University colleagues; fond memories of Professor Beling will long remain.

### 37 Years of Knowledge-partnership

by Professor S Fung, Department of Physics

In mourning the passing of Professor Chris Beling who worked for the Department of Physics for 23 years, I wish to share my story about Chris as my life-long partner in the quest for knowledge. I first met Chris in the undergraduate bar of Keble College Oxford in December 1973 as fellow interviewees. In 1974, for fear of being dragged down academically, the original practical partner assigned to me by my prof. declined to work with me (the first blind person ever admitted by Oxford to read Science).

Chris, in his usual selfless and charitable way, stepped in and became my practical partner for 3 years. In 1977, we both received first class honours hence vindicating Chris' faith in equal opportunities for a scholar with a disability.

While I continued to pursue my postgraduate and postdoctoral Semiconductor Physics research at Oxford, Chris went into Positron Physics at The University of London where he was eventually appointed to lectureship at University College London in 1983. All that time, we kept in close contact in terms of academic exchange and it was then when the idea of applying the positron technique to condensed matter research came to fruition. In 1983-87, Chris made many visits to HKU helping me set up our collaborative and pioneering positron-semiconductor research. As we now know, this collaboration was put on a more permanent footing when Chris joined the Physics Department 23 years ago. Needless to say, this extended partnership has played a pivotal role in my own academic career. Thank you Chris and good bye.



Graduation, Professor S Fung (left) receiving DPhil and Professor Beling receiving MA from Oxford (1981).



The research group of Professor Beling and Professor Fung in HKU (1991).



## Dr Chung Si-Kit, You will be Fondly Remembered

(1957-2010)

by Professor K M Tsang,  
Head of Mathematics

It is with great sadness that Dr Chung Si-Kit, a former colleague and a long time friend, passed away on August 26 at the Grantham Hospital after a long and courageous fight against cancer.

Si-Kit graduated with First Class Honours from our department in 1980. He stayed on in our department as a demonstrator for one year before he moved abroad to the University of Illinois at Urbana-Champaign, where he obtained the M.S. degree in 1983 and, after a break of several years, the PhD degree in 1993.

Si-Kit was a demonstrator in our department for several years in the 1980's. He taught at Xi'an Jiaotong University from 1993 to 1997 and rejoined the department as a teacher from 1997 until his departure in 2007.

Si-Kit has taught many courses in our department, including MATH 2405 "Differential Equations" and other service courses. He was a kind and conscientious teacher. In many of the courses he taught, he wrote detailed lecture notes for his students. He was also the main architect behind the design of our departmental website and he had stayed with its up-keeping for many years since the 1990's on an entirely voluntary basis.

Si-Kit was honest and rigorous, both personally and intellectually. He will be fondly remembered and dearly missed by his students, his friends and colleagues in the department.



# Southwest China's Ancient Super-volcano, Emeishan

by Dr J Ali, Department of Earth Sciences



Ten years ago, Dr J Ali and a former Department of Earth Sciences colleague Dr G Thompson travelled to Sichuan Province in Southwest China to carry out preliminary research fieldwork on some 260-odd-million-year-old volcanic rocks on the flanks of Mount Emei, which, incidentally, is famous for being one of Chinese Buddhism's most sacred sites. Little did he realize that he would make numerous return trips to the region, and that "his" research team would eventually expand to about 10 members, with colleagues from the Mainland and UK, and that it would also lead to papers in prominent journals, including *Science* (Wignall et al. 2009).

The basalt rocks forming the "Emeishan Large Igneous Province" were erupted across large swathes of southwest China (Sichuan, Yunnan and Guizhou), in period of Earth history known as the Middle Permian. Within a million years, 350,000 cubic kilometers of rock was emplaced on the Earth's surface. All of us are aware of the environmental impact Iceland's

Eyjafjallajökull volcano had earlier this year, with its ash cloud shutting down flights into and out of northern and western Europe. However, compared to what occurred at Emeishan, Eyjafjallajökull would not have even registered as a "bad hair" day. In such a situation, the obvious questions to ask are why the volcanism was so intense, what was the magnitude, and if there was an environmental impact.

Several lines of evidence (geological, geophysical and geochemical) indicate that the enormous volume of volcanic material erupted at in southwest China was triggered by a huge thermal anomaly that had formed deep within the Earth, possibly at the core-mantle boundary, around 2900 km below the surface. As the balloon-like plume-head ascended, it began to melt a huge volume of the rocks in the upper mantle, and push up the overlying ground by several hundred metres. The "magma" quickly migrated up into the crust eventually gushing out from great fissures. Aside from the lava flows, vast quantities of ash and noxious gases would have been injected into the atmosphere.

Interestingly, the fossil record from nearby sites in southern China that didn't directly experience the volcanism, and other locations across the globe (North America, Europe), indicate that one of Earth's largest ever "mass extinctions" took place at approximately the same time the Emeishan eruptions were happening. Inevitably this has led to much speculation about an "effect-cause" relationship. After several years of detective work, Ali and his colleagues were able demonstrate that these eruptions were responsible for the destruction 263 million years ago, which effectively reset the course of evolutionary history.

As Ali notes, "We cannot comprehend how horrible Earth must have been when the volcanism at Emeishan kicked-off, but sorting out the scenario and being able to explain the proposed linkages with the biotic depletion has proven to be incredibly satisfying. Also, in the process of the research, I have gotten to explore many beautiful parts of southwest China — most people will only ever get to dream about visiting these places".

## Further readings

ALI, J R et al. 2010. Emeishan large igneous province (SW China) and the mantle plume up-doming hypothesis. *Journal of the Geological Society of London*, 167, 953–959.

BOND, D P G et al. 2010. The Middle Permian (Capitanian) mass extinction on land and in the oceans. *Earth-Science Reviews*, 102, 511–518.

LAI, X L, et al. 2008. Palaeoenvironmental change during the end-Guadalupian (Permian) mass extinction in Sichuan, China. *Palaeogeography. Palaeoclimatology. Palaeoecology*, 269, 78–93.

WIGNALL, P B et al. 2009. Volcanism, mass extinction, and carbon isotope fluctuations in the Middle Permian of China. *Science*, 324, 1179–1182.

*Ali inspecting the lava flows at one of the key Emeishan basalts sections in a roadside section southern Sichuan (2006)*

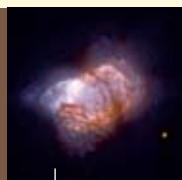




# Exhibition at Hong Kong Science Museum Introduces Life in the Universe

How did life emerge on Earth? Are there any other planets with life in the universe? The emergence of life on Earth and the existence of life on other planets are fundamental questions.

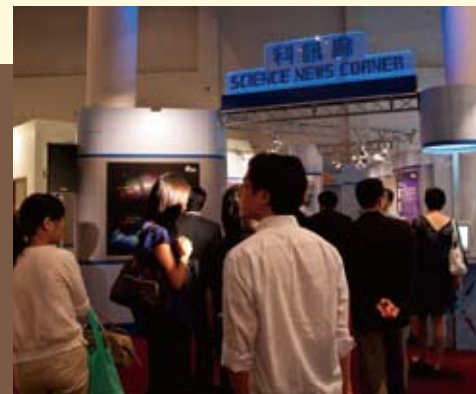
The Astrobiology Group of The University of Hong Kong have made great efforts to establish a roadmap of co-evolution of the geosphere and biosphere on Earth as a model of the habitability of life elsewhere in the universe. They have mounted an exhibition entitled "Life in the Universe" at Science News Corner, Hong Kong Science Museum to introduce the research on life on planets in the universe.



NGC 7027 is an example of a planetary nebula where large-scale synthesis of complex organic compounds is taking place. Planetary nebula is a phase that most stars go through just before they die. The organics that they make are ejected into the interstellar medium and spread throughout the Galaxy.



Dry Valley upturned rock showing cryptic microbes. Image credit: Dr Pointing



## "Life in the Universe"

**Date:** from now to January 5, 2011

**Venue:** Science News Corner, 2/F, Hong Kong Science Museum,  
2 Science Museum Road, Tsim Sha Tsui East

**Opening Hours:** 1pm to 9pm from Monday to Wednesday and on Fridays; from 10am to 9pm on Saturdays, Sundays and public holidays; closed on Thursdays (except public holidays)

### About the Exhibition:

With ground-based and space-based telescopes, astronomers have now discovered the building blocks of life in space, in the form of many complex organic molecules and solids. These extraterrestrial organics enriched the early solar system and evidence for widespread organic

star dust is found in meteorites, asteroids and comets. Geological studies have revealed evidence of past impacts from extraterrestrial objects. These impacts brought large amounts of organics to the young Earth and may have accelerated the development of life 4 billion years ago. The discovery of microorganisms in cold, arid deserts of Antarctica suggests that life can flourish in extremely difficult conditions, suggesting the possibility of the existence of life on the cold surface of Mars. The discovery of over 350 planets in other solar systems beyond our own also leads us to believe that life may be common in the Galaxy.

The exhibition is mounted by Professor S Kwok, Dean of Science of The University of Hong Kong, and his project team, the Astrobiology Group which comprises Dr S B Pointing, Dr Y L Li and Dr M H Lee.

## Students' Corner

# Exchange with Undergraduates from The University of British Columbia



The western coast of Canada is a beautiful and rugged environment to study marine biology, but the May of 2010 saw 14 undergraduate students from The University of British Columbia travel across the Pacific Ocean to conduct their marine biology fieldcourse in the tropics at The Swire Institute of Marine Science (SWIMS). Led by Drs Chris Harley and Patrick Martone, students stayed in the SWIMS residences, living and sharing their meals with SWIMS postgraduate students. In the day, students sat lectures and practicals at the SWIMS academic block as well as going on fieldtrips around Hong Kong; visiting the mudflats and mangroves of Tsim Bei Tsui; sand flats in Tolo Harbour and the rocky shores of Shek O. During their brief time off, UBC staff and students were able to find time to experience Hong Kong's nightlife and the markets of Stanley and attractions of Tsim Sha Tsui. All in all the field trip was a great experience not only for the UBC students, who commented 'everything was wonderful!...all of the sites we visited were beautiful' and 'the experience was so much more fun than I could have ever expected' and was 'inspiring', but also for the SWIMS students and staff who had the chance to work with the UBC group and share their common interest in marine biology no matter which coast of the Pacific it is found on.





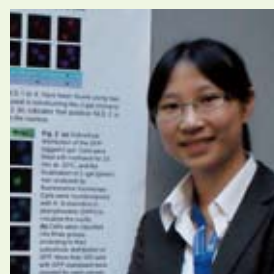
## Unforgettable Experience at U21 Undergraduate Research Conference 2010

**by To Kit Yan Sally**

*2010 BSc Graduate (Major in Biology, minor in Microbiology and minor in Translation)  
Participant of the Universitas 21 Undergraduate Research Conference 2010*

"I am delighted to be one of the HKU representatives to participate in the U21 Undergraduate Research Conference this summer. The conference has gathered over 50 undergraduate students studying a wide range of disciplines from different parts of the world. We shared our research projects through either oral or poster presentations, during which we learnt a great deal on conducting research from each other. The University of Melbourne, the host of this year's conference, has also organized some local tours for the participants before the presentations, which allowed us to experience the Australian cultures. After all, the conference has enriched my undergraduate life by exposing me to the hospitality of Australian people, as well as the fascinating world of research. I enjoyed it very much."

Five HKU students joined the U21 Undergraduate Research Conference in Melbourne this year, led by Professor L S Chan, Faculty of Science.



## Opportunities are Everywhere at HKU



**by Chu Chun Kit John**

*2010 BSc (Chemistry) Graduate*

*Participant of Overseas Research Fellowship Scheme in Department of Chemistry at University of Waterloo, May – August 2008*

*Participant of Summer Research Fellowship Scheme in the Department of Chemistry at The University of Hong Kong, June – August 2009*

*Exchange study at Cambridge University, 2009-10*

*John is now pursuing the Master of Science in Chemistry at The University of British Columbia*

"I was amazed by the excellent teaching quality and the availability of many opportunities at HKU. The courses offered by the Department of Chemistry were of a wide variety and high quality, widening my horizon and allowing me to explore different fields of chemistry. Outside classroom, I was active in taking part in a wide range of activities. I participated in the Chemistry Olympiad for tertiary institutions and the Sixteenth Symposium on Chemistry Postgraduate Research in Hong Kong. In addition, I served the University as a Science Student Ambassador to share my experience with visiting secondary school students. Through these activities, I was able to develop good communication skills and learn how to work effectively with others.

While I enjoyed studying at HKU much, I made use of the opportunities to go overseas for cultural and academic exchange. Through the HKU Overseas Research Fellowship Scheme, I visited the University of Waterloo in Canada to gain hands-on experience in cutting-edge scientific research. I was also given a chance to spend a year at the University of Cambridge in England as an exchange student. The study experience at this prestigious university allowed me to challenge myself and integrate myself into western culture.

Many opportunities are available at HKU! As a student, I made choices and opted for those for me. Acquisition of knowledge and soft skills from different experiences allowed me to have all-rounded development. I am now more capable and confident. The education I received at HKU definitely serves as a good preparation of my overseas postgraduate studies and future career."



## Achievements

## Teachers

✱ **Dr K M Y Leung**, Associate Professor of School of Biological Sciences, was selected as "Ten Outstanding Young Persons Selection 2010" for his efforts in environmental education and research by the Junior Chamber International Hong Kong. Dr Leung would like to take this opportunity to share his story with the youths and encourage them to "never give up", "identify a meaningful career goal that matches one's interest" and "plan and work hard to reach the goal in a stepwise manner", in the hope that they will exemplify their best attributes in future.

Dr Leung has also been awarded the "Highly Cited Author Award 2005-2009" by the journal *Marine Pollution Bulletin* (Elsevier in early June, 2010). Also, he was elected as the President of SETAC Asia-Pacific Geographical Unit in the same month. SETAC is the Society of Environmental Toxicology and Chemistry, currently with over 5,000 professional members from over 80 countries.

✱ **Professor N Mok**, Chair Professor of Department of Mathematics, has been appointed as one of the 9 members of Fields Medal Committee of International Congress of Mathematicians (ICM), a world-wide congress held by mathematical community once every 4 years since 1936. The Fields Medal has played the role of the Nobel Prize in Mathematics for decades, and the prize this year was selected by the Committee and awarded at the Opening Ceremony of the ICM in India on August 19, 2010. Professor Mok is the second Chinese mathematician appointed to this adjudicating body in Mathematics of high academic stature.

✱ **Professor V W W Yam**, Chair of Chemistry and Philip Wong Wilson Wong Professor in Chemistry and Energy is selected as a feature author of the *American Chemical Society Publications*, of which her articles published in *ACS Journals*, include *Organometallics*, *Inorganic Chemistry* and *The Journal of the American Chemical Society*. For more details, please visit:

<http://pubs.acs.org/page/4authors/index.html>

## Students

✱ **Global Championship in the CIMA Global Business Challenge**

Starlight, a team of four undergraduate students from Faculty of Science (Donna

Cai from Actuarial Science and Preston Huang from Mathematics) and Faculty of Business and Economics has won the Global Championship in the CIMA Global Business Challenge held in Kuala Lumpur, Malaysia this August. The team competed intensely with the other 13 national champions in the final on a business case of a mobile network operator. Participating teams had to analyze and to present the business case in front of an audience of more than 500 people and a distinguished judging panel. Starlight's highly analytical skills and professional approach and presentation won high praises from the panel of judges.

The Global Business Challenge is an international competition designed to bring out the best in potential business leaders among young people.



## Events

## Lectures

✱ September 15, 2010: "Madagascar's Mammals: The Great Voyage" by Dr J Ali, Department of Earth Sciences

✱ September 29, 2010: "The Shaw Prize Lecture on Astronomy – Taking the Universe's Baby Picture with WMAP" by Professor Charles L Bennett, Professor Lyman A Page Jr and Professor David N Spergel, Shaw Prize Laureates of Astronomy

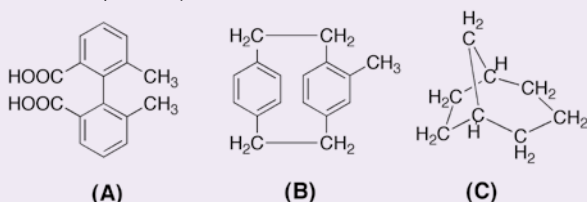
✱ October 7, 2010: "1607, a Year of (Some) Significance: Translation of the First European text in Mathematics - Elements - into Chinese" by Professor M K Siu, Department of Mathematics

## Seminar

✱ November 2, 2010: "Planetary Boundaries: A Safe Operating Space for Humanity in an Era of Rapid Global Environmental Change" by Professor Johan Rockström, Professor in natural resource management at Stockholm University, and the Executive Director of the Stockholm Environment Institute and the Stockholm Resilience Centre

## Brain teaser Question

The synthesis, isolation, and characterization of chiral molecules are very important topics in organic chemistry. Two isomers with exactly the same bonding structure but with opposite Chirality will have different properties. This is especially important for those molecules in biological systems (e.g. proteins) or those for pharmaceutical applications. Three molecules, A-C, are shown in the figure. Please identify which molecule(s) is/are chiral, and write a very brief explanation.



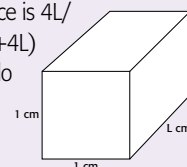
Prize: \$50 book coupon

Deadline: December 3, 2010

Please email your answer together with your name and school (for students), to [scinews@hku.hk](mailto:scinews@hku.hk). FIVE winners will be drawn randomly from the contestants who give the correct answer.

## Question of Last Issue's Quiz:

Dice games have been involved in gambling for centuries. Rolling dice is often a popular activity in learning basic statistics and probability. Here, we consider the probability of getting a 6 in rolling a generalized die of size 1 cm x 1 cm x L cm, where the two faces of 1 cm x 1 cm on the die are marked 6 and other faces are marked otherwise. When L = 1, it is a standard die where the probability of rolling a 6 is 1/3. One argument is that the probability of a particular face rests on the surface should be in proportion to the area of that face and since the total area of the six faces is 2 + 4L cm<sup>2</sup>, the probability of the die resting on any 1 cm x L cm face is 4L/(2+4L) and hence the probability of getting a 6 equals to 1 - 4L/(2+4L) = 1/(1+2L), which also gives the answer for a standard die. What do you think of this solution? Give reasons to support your argument.



## Answer:

No. In case of asymmetry as when L is not 1, the proportion argument based on area no longer works due to the much more complex dynamics of gravity force. Based on a simulation experiment by rolling the die 760 times done by Dunn (2003), the probability of rolling a 6 is only 0.06 if L = 1.5 and is 0.02 if L = 2, far lower than from the suggested formula. Fitting a regression model for a function of the probability in order to estimate the probabilities for various values of L has been demonstrated in the article.

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